

Nexus[®] 1450 Modbus Protocol

Cyber-secure Energy Panel Meter with Advanced Power Quality and Multi-port Communication



**Modbus Protocol
Application Guide**

V.1.02

March 20, 2018

 **Electro Industries/GaugeTech**
The Leader In Power Monitoring and Smart Grid Solutions

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Nexus® 1450 High Performance Meter Modbus Protocol User Manual V.1.02

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About Electro Industries/GaugeTech (EIG)

Founded in 1975 by engineer and inventor Dr. Samuel Kagan, Electro Industries/GaugeTech changed the face of power monitoring forever with its first breakthrough innovation: an affordable, easy-to-use AC power meter.

More than forty years since its founding, Electro Industries/GaugeTech, the leader in power monitoring and control, continues to revolutionize the industry with the highest quality, cutting edge power monitoring and control technology on the market today. An ISO 9001:2015 certified company, EIG sets the industry standard for advanced power quality and reporting, revenue metering and substation data acquisition and control. EIG products can be found on site at mainly all of today's leading manufacturers, industrial giants and utilities.

EIG products are primarily designed, manufactured, tested and calibrated at our facility in Westbury, New York.

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Glossary GL-1

1: Modbus Protocol Overview

1.1: Introduction

The Nexus® 1450 meter can communicate with other devices using the RTU transmission mode of the AEG Modicon Modbus protocol.

- RS485 communication supports multiple Nexus® meters connected on a network. It is a two-wire connection operating up to 115200 baud.
- See the *Nexus® 1450 Meter Installation and Operation Manual* for wiring details.

1.2: Communication Packets (Modbus RTU)

Communication takes place between a Modbus master and one or more Nexus® slave devices. The master device initiates all communication by transmitting an information packet, called the "request," to a specific slave device. The slave replies with its own packet, called the "response." A packet is a serial string of 8-bit bytes consisting of the following:

Slave Address	1 byte
Function Code	1 byte
Data	N bytes: high-ordered byte first, low-order byte second
CRC (RTU Error Checksum)	2 bytes
Dead Time	3.5 bytes transmission time

A single packet can transmit a maximum of 125 registers.

1.3: Slave Address and Broadcast Request

Each slave device on a communication bus has its own unique address. Only the slave addressed by a master will respond. The response packet returned to the master will have the same value in the slave address field as the request packet. Addresses are programmable and range from 1 to 247.

A slave address of 0 is a broadcast command that allows the master to send the same packet to all devices at once. All slaves will obey the packet's instructions, but none will respond. The broadcast request feature is available only with function codes 6 and 10, preset single registers, and preset multiple registers, respectively. See Tables 1.3 and 1.4.

1.4: Function Codes

A packet's function code tells the addressed slave what action to perform. The Nexus® 1450 meter supports the following Modbus function codes:

Table 1.1: Function Codes		
Hex	Dec	Description
03H	3	Read Holding Registers
04H	4	Read Input Registers
06H	6	Preset Single Register
10H	16	Preset Multiple Registers

1.4.1: Function Code 03H - Read Holding Registers

This function allows a master station to read one or more parameter values (data registers) from a Nexus® meter slave. The data registers are 16-bit (two byte) values transmitted in "Big Endian" format: high-ordered byte first, low-ordered byte second.

The master device sends a packet defining a start register for the slave and the number of registers to read. The slave responds with a packet containing the requested parameter values within the range specified in the request.

In the following example, a master device requests a Nexus® meter slave at address 01H to transmit two values beginning at register 00001. The slave replies with values 3031H and 3037H from registers 00001 and 00002.

Table 1.2: Function Code 03H Example			
Master Packet		Slave Packet	
Slave Address	01H	Slave Address	01H
Function Code	03H	Function Code	03H
Data Starting Address - Hi	00H	Byte Count	04H
Data Starting Address - Lo	00H	Data 1-Hi	30H
Number of Registers - Hi	00H	Data 1-Lo	31H
Number of Registers - Lo	02H	Data 2-Hi	30H
CRC-Lo	C4H	Data 2-Lo	37H
CRC-Hi	0BH	CRC-Lo	F1H
		CRC-Hi	2AH

1.4.2: Function Code 04H - Read Input Registers

This function allows a master station to read one or more parameter values (data registers) from a Nexus® meter slave. The data registers are 16-bit (two byte) values transmitted in "Big Indian" format: high-ordered byte first, low-ordered byte second.

The master device sends a packet defining a start register for the slave and the number of registers to read. The slave responds with a packet containing the requested parameter values within the range specified in the request.

In the following example, a master device requests a Nexus® meter slave at address 01H to transmit two values beginning at register 00001. The slave replies with values 3031H and 3037H from registers 00001 and 00002.

Table 1.3: Function Code 04H Example			
Master Packet		Slave Packet	
Slave Address	01H	Slave Address	01H
Function Code	04H	Function Code	04H
Data Starting Address - Hi	00H	Byte Count	04H
Data Starting Address - Lo	00H	Data 1-Hi	30H
Number of Registers - Hi	00H	Data 1-Lo	31H
Number of Registers - Lo	02H	Data 2-Hi	30H
CRC-Lo	C4H	Data 2-Lo	37H
CRC-Hi	0BH	CRC-Lo	F1H
		CRC-Hi	2AH

1.4.3: Function Code 06H - Preset Single Register

This function allows a master station to modify a single register in a Nexus® meter slave. The data registers are 16-bit (two byte) values transmitted high-ordered byte first, low-ordered byte second.

In the following example, a master device stores the value 0001H at register 57346 in a Nexus® meter slave at address 01H.

Table 1.4: Function Code 6H Example			
Master Packet		Slave Packet	
Slave Address	01H	Slave Address	01H
Function Code	06H	Function Code	06H
Data Starting Address- Hi	E0H	Data Starting Address - Hi	E0H
Data starting Address-Lo	01H	Data Starting Address-Lo	01H
Data-Hi	00H	Data-Hi	00H
Data-Lo	01H	Data-Lo	01H
CRC-Lo	2EH	CRC-Lo	2EH
CRC-Hi	0AH	CRC-Hi	0AH

1.4.4: Function Code 10H - Preset Multiple Registers

This function allows a master station to modify a group of consecutive registers in a Nexus® meter slave. Registers are 16-bit (two byte) values transmitted high-ordered byte first, low-ordered byte second.

In the following example, a master device stores the value 0001H at register 57345, 0001H at register 57346, and 0001H at register 57347 in a Nexus® meter slave at address 01H.

Table 1.5: Function Code 10H Example			
Master Packet		Slave Packet	
Slave Address	01H	Slave Address	01H
Function Code	10H	Function Code	10H
Data Starting Address- Hi	E0H	Data Starting Address - Hi	E0H
Data starting Address-Lo	01H	Data Starting Address-Lo	01H
Number of Setpoints-Hi	00H	Number of Setpoints-Hi	00H
Number of Setpoints-Lo	03H	Number of Setpoints-Lo	03H
Byte Count	06H	CRC-Lo	E6H
Data # 1-Hi	00H	CRC-Hi	08H
Data # 1-Lo	01H		
Data # 2-Lo	00H		
Data # 2-Hi	01H		
Data # 3-Lo	00H		
Data # 3-Hi	01H		
CRC-Lo	4DH		
CRC-Hi	46H		

NOTE: The Modbus map address range in hexadecimal is 0000H - FFFFH; and in decimal is 00001 - 65536. The addresses given in the Nexus® 1450 Meter Modbus Register Map in Chapter 2 are in decimal. For some SCADA software, to read holding registers (see Section 1.4.1: Function Code 03H - Read Holding Registers on page 1-2), the address format should be: 4(XXXXX), with the XXXXX being the decimal address.

1.5: CRC (Error Checksum) Algorithm

The Cyclic Redundancy Check (CRC) field is an error checksum calculation that enables a slave device to determine if a request packet has been corrupted during transmission.

Every request packet transmitted from master to slave includes a special 16-bit value derived from a CRC-16 algorithm performed on the packet's contents. When a Nexus® meter slave receives a packet, it performs a CRC-16 calculation and compares the value with the one included in the request packet. If the two values do not match, the slave will ignore the packet.

Following is the pseudocode for calculating the 16-bit CRC:

Initialize a 16-bit register to FFFFH.

Initialize the generator polynomial to A001H.

FOR n=1 to # of bytes in packet

 XOR nth data byte with the 16-bit register

 FOR bits_shifted = 1 to 8

 SHIFT 1 bit to the right

 IF (bit shifted out EQUAL 1)

 XOR generator polynomial with the 16-bit register
 and store result in the 16-bit register

 END IF

 END FOR

END FOR

The resulting 16-bit register contains the CRC-16 checksum.

1.6: Dead Time

A Nexus® meter slave considers a transmission from a master complete when it has received no data for a period of 3.5 byte transmission times - approximately 7 ms at 4800 baud and 300 microseconds at 115200 baud. If the master transmits, with any gaps between bytes that are longer than this time period, the slaves will perceive it as dead time. At the conclusion of the dead time, all unaddressed slaves begin listening for a new packet from the master.

1.7: Exception Response (Error Codes)

A Nexus® meter slave will send its master an exception response packet if it has encountered an invalid command or other problem while carrying out the master's instructions. The function code of the response will have the most significant bit set. The data field of the exception Response contains an error code specific to the type of problem.

Table 1.5 lists the different error codes supported by the Nexus® 1450 meter.

Table 1.5: Exception Response (Error Codes)		
Error Code	Name	Description
01	Illegal Function	The slave does not support the function code of the transmitted request packet.
02	Illegal Data Address	The slave does not recognize the address in the data field of the transmitted request packet.
03	Illegal Data Value	The value referenced in the transmitted request packet is not supported by the register on the Nexus® meter slave.
06	Busy, Rejected Packet	The slave is busy performing a long operation and cannot receive the request packet.
0Ah	Gateway Paths Not Available	Used for Modbus TCP when the 2nd RS485 port is configured as a Ethernet Gateway.

In the following example, a master Device requests a Nexus® meter slave at address 01H to transmit the value at register 00256. The slave replies with an error, indicating that it is busy.

Table 1.6: Exception Response Example			
Master Packet		Slave Packet	
Address	01H	Address	01H
Function Code	03H	Function Code	83H
Data Starting Address- Hi	01H	Error Code	06H
Data starting Address-Lo	00H	CRC-Lo	C1H
Number of Registers-Hi	00H	CRC-Hi	32H
Number of Registers-Lo	01H		
CRC-Lo	85H		
CRC-Hi	F6H		

1.8: Modbus Extensions

Modbus read requests have a maximum size when using standard Modbus function. EIG developed Enhanced (Non-Standard) Modbus read requests to allow larger than standard responses. This requires fewer requests and, is therefore, more efficient. Also, total download time is reduced.

This function is also more efficient with log retrieval. It allows the network card(s) to communicate with the main unit using DNP protocol, utilizing a Modbus connection.

As part of the non-standard extensions to the Modbus protocol, the Nexus® 1450 meter supports the following additional Modbus function codes:

Modbus Extensions		
Function Code		Description
Hex	Dec	
23H	35	Read Holding Registers Multiple Times

1.8.1: Function Code 23H - Read Holding Registers Multiple Times

This function allows a master station to read the binary contents of holding registers (4X references) in the slave multiple times. Broadcast is not supported.

The master device sends a packet defining the starting register, quantity of registers to be read, and the repeat count. Registers are addressed starting at zero, i.e., registers 1-16 are addressed as 0-15.

Here is an example of a request to read registers 40108-40110 twice from slave device 17:

Function Code	
Field Name	Example (Hex)
Slave Address	11
Function Code	23
Data Starting Address-Hi	00
Data Starting Address-Lo	6B
Number of Registers-Hi	00
Number of Registers-Lo	03
Repeat Count	02
Error Check (LRC or CRC)	

The register data in the response message is packed as two bytes per register, with the binary contents right justified within each byte. For each register, the first byte contains the high order bits and the second contains the low order bits.

Data is scanned at the following maximum rates, depending on the repeat count:

Repeat Count	RTU Framing	ASCII Framing
1	509 Registers	253 Registers
2	254 Registers	126 Registers
3	169 Registers	84 Registers
4	127 Registers	63 Registers
5	101 Registers	50 Registers
6	84 Registers	42 Registers
7	72 Registers	36 Registers

The response is returned when the data is completely assembled. Here is an example of a response to the data given earlier:

Function Code 23H/43H Example (Response)	
Field Name	Example (Hex)
Slave Address	11
Function Code	23
Byte Count Hi	00
Byte Count Lo	0C
Data Hi (Register 40108, First Read)	02
Data Lo (Register 40108, First Read)	2B
Data Hi (Register 40109, First Read)	00
Data Lo (Register 40109, First Read)	00
Data Hi (Register 40110, First Read)	00
Data Lo (Register 40110, First Read)	64
Data Hi (Register 40108, Second Read)	02
Data Lo (Register 40108, Second Read)	2B
Data Hi (Register 40109, Second Read)	00
Data Lo (Register 40109, Second Read)	00
Data Hi (Register 40110, Second Read)	00
Data Lo (Register 40110, Second Read)	64
Error Check (LRC or CRC)	--

The contents of register 40108 are shown as the two-byte values of 02 2B hexadecimal or 555 decimal. The contents of registers 40109 - 40110 is 00 00 and 00 64 hexadecimal or 0 and 100 decimal.

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2: Modbus Register Map

2.1: Introduction

The Nexus® 1450 meter's Modbus register map begins on the following page. First the Holding Registers section is shown, then the Input Registers section is shown.

- One second readings use the One Second block, registers 00176-00235, described in Section 7.5: One Second Block (00176-00235) on page 7-4.
- Resetting maximums, minimums, energy readings and/or logs use the Action block, registers 57345-57393, described in Section 7.7: Maximum Block (00296-00396) on page 7-5 and Section 7.8: Minimum Block (00397-00497) on page 7-5.
- Time may be set in the Nexus® meter using the Real Time block, registers 00081-00089, described in Section 7.2: Real Time Block (00081-00089) on page 7-1.

The remainder of this manual elaborates on aspects of the Modbus register map.

- Chapter 3 gives a detailed description of communication formats referred to in the register map's "Type" column. See the Table of Contents for a list of the register map's "Types" and the pages on which they are explained.
- Chapter 4 gives an explanation of the register map's "Notes" column.
- Chapter 5 gives explanation on, and instructions for downloading logs.
- Chapter 6 gives instructions on Large Data Access (LDA) and downloading logs.
- Chapter 7 gives an explanation of the Programmable Settings blocks.
- Chapter 8 gives descriptions of all the Nexus® 1450 meter Modbus register map's register Block titles and the registers included in each block.
- Chapter 9 gives instructions on an alternative method of downloading logs.
- Chapter 10 gives instructions on additional procedures: port control, updating programmable settings, TOU modifications, and calibration.
- The Glossary gives an explanation of terminology.

- Note that depending on the meter's security settings, some readings may be unavailable until the user provides the proper authentication information (username and password).

2.2: Modbus Map Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
Identification Block										
0000H-0007H	0001-0008	0	0		Device Name			F1	R	
0008H-000FH	0009-0016	1	0		Firmware Variation String 1			F1	R	
0010H-0017H	0017-0024	1	1		Firmware Variation String 2			F1	R	
0018H-001FH	0025-0032	1	2		Firmware Variation String 3			F1	R	
0020H-0027H	0033-0040	1	3		Firmware Variation String 4			F1	R	
0028H-002FH	0041-0048	1	4		Firmware Variation String 5			F1	R	
0030H-0037H	0049-0056	1	5		Firmware Variation String 6			F1	R	
0038H-003FH	0057-0064	1	6		Firmware Variation String 7			F1	R	
0040H-0047H	0065-0072	1	7		Firmware Variation String 8			F1	R	
0048H-0049H	0073-0074	2	0		Nexus Comm Boot Version Number (Major). See also register 0xFD00-0xFD01 for Minor	9.9.9.9 / 0.0.0.0	0.0.0.1 version	F2	R	
004AH-004BH	0075-0076	3	0		Nexus Comm Run-Time Version Number (Major). See also register 0xFD07-0xFD08 for Minor	9.9.9.9 / 0.0.0.0	0.0.0.1 version	F2	R	
004CH-004FH	0077-0080				Removed					
Real Time Block										
0050H-0053H	0081-0084	6	0	50	On Time	12/31/9999 23:59:59.99	10 msec	F3	R	1
0054H-0057H	0085-0088	7	0	50	Current Time	12/31/9999 23:59:59.99	10 msec	F3	R/W	1, 2
0058H	0089	8	0	50	Current Day of the Week	Sunday - Saturday		F4	R	1, 2
One Cycle Block										
0059H-005CH	0090-0093	9	0		One cycle Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	
005DH-005EH	0094-0095	10	0		One cycle Phase A-N Voltage			F7	R	
005FH-0060H	0096-0097	10	1		One cycle Phase B-N Voltage			F7	R	
0061H-0062H	0098-0099	10	2		One cycle Phase C-N Voltage			F7	R	
0063H-0064H	0100-0101	11	0		One cycle Vaux Voltage			F7	R	
0065H-0066H	0102-0103	12	0		One cycle Phase A Current			F7	R	
0067H-0068H	0104-0105	12	1		One cycle Phase B Current			F7	R	
0069H-006AH	0106-0107	12	2		One cycle Phase C Current			F7	R	
006BH-006CH	0108-0109	13	0		One cycle Measured Neutral Current (Iaux)			F7	R	
006DH-006EH	0110-0111	15	0		One cycle Calculated Neutral Current (Ires)			F7	R	
006FH-0070H	0112-0113	14	0		One cycle Phase A-B Voltage			F7	R	
0071H-0072H	0114-0115	14	1		One cycle Phase B-C Voltage			F7	R	
0073H-0074H	0116-0117	14	2		One cycle Phase A-C Voltage			F7	R	
0075H	0118	16	0		One cycle High Speed Input Delta and Current State			F6	R	
High Speed										
0076H-0079H	0119-0122	17	0	50	High Speed Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
007AH-007BH	0123-0124	18	0	30	High Speed Phase A-N Voltage	+32767 V / 0 V	1/ 65536 V sec	F7	R	4
007CH-007DH	0125-0126	18	1	30	High Speed Phase B-N Voltage	+32767 V / 0 V	1/ 65536 V sec	F7	R	4
007EH-007FH	0127-0128	18	2	30	High Speed Phase C-N Voltage	+32767 V / 0 V	1/ 65536 V sec	F7	R	4
0080H-0081H	0129-0130	19	0	30	High Speed Vaux Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0082H-0083H	0131-0132	20	0	30	High Speed Phase A Current	+32767 V / 0 V	1/ 65536 A sec	F7	R	6
0084H-0085H	0133-0134	20	1	30	High Speed Phase B Current	+32767 V / 0 V	1/ 65536 A sec	F7	R	6
0086H-0087H	0135-0136	20	2	30	High Speed Phase C Current	+32767 V / 0 V	1/ 65536 A sec	F7	R	6
0088H-0089H	0137-0138	21	0	30	High Speed Measured Neutral Current	+32767 V / 0 V	1/ 65536 A sec	F7	R	
008AH-008BH	0139-0140	22	0	30	High Speed Phase A-B Voltage	+32767 V / 0 V	1/ 65536 V sec	F7	R	4
008CH-008DH	0141-0142	22	1	30	High Speed Phase B-C Voltage	+32767 V / 0 V	1/ 65536 V sec	F7	R	4
008EH-008FH	0143-0144	22	2	30	High Speed Phase A-C Voltage	+32767 V / 0 V	1/ 65536 V sec	F7	R	4
0090H-0091H	0145-0146	23	0	30	High Speed Phase A VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0092H-0093H	0147-0148	23	1	30	High Speed Phase B VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0094H-0095H	0149-0150	23	2	30	High Speed Phase C VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0096H-0097H	0151-0152	24	0	30	High Speed Three Phase VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0098H-0099H	0153-0154	25	0	30	High Speed Phase A VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
009AH-009BH	0155-0156	25	1	30	High Speed Phase B VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
009CH-009DH	0157-0158	25	2	30	High Speed Phase C VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
009EH-009FH	0159-0160	26	0	30	High Speed Three Phase VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
00A0H-00A1H	0161-0162	27	0	30	High Speed Phase A Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00A2H-00A3H	0163-0164	27	1	30	High Speed Phase B Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00A4H-00A5H	0165-0166	27	2	30	High Speed Phase C Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00A6H-00A7H	0167-0168	28	0	30	High Speed Three Phase Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00A8H-00A9H	0169-0170	29	0	30	High Speed Frequency	+32767 Hz / 0 Hz	1/ 65536 Hz	F7	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
00AAH	00171	30	0	30	High Speed Phase A Power Factor	3.999 / 0.000	0.001 PF	F8	R	
00ABH	00172	30	1	30	High Speed Phase B Power Factor	3.999 / 0.000	0.001 PF	F8	R	
00ACH	00173	30	2	30	High Speed Phase C Power Factor	3.999 / 0.000	0.001 PF	F8	R	
00ADH	00174	31	0	30	High Speed Three Phase Power Factor	3.999 / 0.000	0.001 PF	F8	R	
00AEH	00175	32	0	30	High Speed Phase A-N Voltage to Auxiliary Voltage Phase Angle	+ 180 / - 180	0.01 degree	F9	R	
One Second Block										
00AFH-00B2H	00176-00179	33	0	50	One second Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
00B3H-00B4H	00180-00181	34	0	30	One second Phase A-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00B5H-00B6H	00182-00183	34	1	30	One second Phase B-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00B7H-00B8H	00184-00185	34	2	30	One second Phase C-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00B9H-00BAH	00186-00187	35	0	30	One second Vaux Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00BBH-00BCH	00188-00189	36	0	30	One second Phase A Current	+32767 A / 0 A	1/ 65536 A sec	F7	R	6
00BDH-00BEH	00190-00191	36	1	30	One second Phase B Current	+32767 A / 0 A	1/ 65536 A sec	F7	R	6
00BFH-00C0H	00192-00193	36	2	30	One second Phase C Current	+32767 A / 0 A	1/ 65536 A sec	F7	R	6
00C1H-00C2H	00194-00195	37	0	30	One second Measured Neutral Current	+32767 A / 0 A	1/ 65536 A sec	F7	R	
00C3H-00C4H	00196-00197	38	0	30	One second Calculated Neutral Current	+32767 A / 0 A	1/ 65536 A sec	F7	R	6
00C5H-00C6H	00198-00199	39	0	30	One second Phase A-B Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00C7H-00C8H	00200-00201	39	1	30	One second Phase B-C Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00C9H-00CAH	00202-00203	39	2	30	One second Phase C-A Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00CBH-00CCH	00204-00205	40	0	30	One second Phase A VA	+ 32767 V / 0 V	1/ 65536 VA sec	F7	R	9
00CDH-00CEH	00206-00207	40	1	30	One second Phase B VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
00CFH-00D0H	00208-00209	40	2	30	One second Phase C VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
00D1H-00D2H	00210-00211	41	0	30	One second VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
00D3H-00D4H	00212-00213	42	0	30	One second Phase A VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
00D5H-00D6H	00214-00215	42	1	30	One second Phase B VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
00D7H-00D8H	00216-00217	42	2	30	One second Phase C VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
00D9H-00DAH	00218-00219	43	0	30	One second Three VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
00DBH-00DCH	00220-00221	44	0	30	One second Phase A Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00DDH-00DEH	00222-00223	44	1	30	One second Phase B Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00DFH-00E0H	00224-00225	44	2	30	One second Phase C Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00E1H-00E2H	00226-00227	45	0	30	One second Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
00E3H-00E4H	00228-00229	46	0	30	One second Frequency	+ 32767 Hz / 0 Hz	1/ 65536 Hz	F7	R	
00E5H	00230	47	0	30	One second Phase A Power Factor	3.999 / 0	0.001 PF	F8	R	
00E6H	00231	47	1	30	One second Phase B Power Factor	3.999 / 0	0.001 PF	F8	R	
00E7H	00232	47	2	30	One second Phase C Power Factor	3.999 / 0	0.001 PF	F8	R	
00E8H	00233	48	0	30	One second Three Phase Power Factor	3.999 / 0	0.001 PF	F8	R	
00E9H	00234	49	0	30	One second Voltage Imbalance	+327.67% / -327.68%	0.01%	F10	R	
00EAH	00235	49	1	30	One second Current Imbalance	+327.67% / -327.68%	0.01%	F10	R	
Block										
00EBH-00EEH	00236-00239	50	0	50	Thermal Average Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
00EFH-00F0H	00240-00241	51	0	30	Thermal Average Phase A-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00F1H-00F2H	00242-00243	51	1	30	Thermal Average Phase B-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00F3H-00F4H	00244-00245	51	2	30	Thermal Average Phase C-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00F5H-00F6H	00246-00247	52	0	30	Thermal Average Aux Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
00F7H-00F8H	00248-00249	53	0	30	Thermal Average Phase A Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
00F9H-00FAH	00250-00251	53	1	30	Thermal Average Phase B Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
00FBH-00FCH	00252-00253	53	2	30	Thermal Average Phase C Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
00FDH-00FEH	00254-00255	54	0	30	Thermal Average Measured Neutral Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	
00FFH-0100H	00256-00257	55	0	30	Thermal Average Calculated Neutral Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
0101H-0102H	00258-00259	56	0	30	Thermal Average Phase A-B Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0103H-0104H	00260-00261	56	1	30	Thermal Average Phase B-C Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0105H-0106H	00262-00263	56	2	30	Thermal Average Phase C-A Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0107H-0108H	00264-00265	57	0	30	Thermal Average Phase A VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0109H-010AH	00266-00267	57	1	30	Thermal Average Phase B VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
010BH-010CH	00268-00269	57	2	30	Thermal Average Phase C VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
010DH-010EH	00270-00271	58	0	30	Thermal Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
010FH-0110H	00272-00273	59	0	30	Thermal Average Phase A VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0111H-0112H	00274-00275	59	1	30	Thermal Average Phase B VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0113H-0114H	00276-00277	59	2	30	Thermal Average Phase C VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0115H-0116H	00278-00279	60	0	30	Thermal Average VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0117H-0118H	00280-00281	61	0	30	Thermal Average Phase A Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0119H-011AH	00282-00283	61	1	30	Thermal Average Phase B Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
011BH-011CH	00284-00285	61	2	30	Thermal Average Phase C Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
011DH-011EH	00286-00287	62	0	30	Thermal Average Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
011FH-0120H	00288-00289	63	0	30	Thermal Average Frequency	+ 32767 Hz / 0 Hz	1/ 65536 Hz	F7	R	9
0121H	00290	64	0	30	Thermal Average Phase A Power Factor	3.999 / 0	0.001 PF	F8	R	
0122H	00291	64	1	30	Thermal Average Phase B Power Factor	3.999 / 0	0.001 PF	F8	R	
0123H	00292	64	2	30	Thermal Average Phase C Power Factor	3.999 / 0	0.001 PF	F8	R	
0124H	00293	65	0	30	Thermal Average Power Factor	3.999 / 0	0.001 PF	F8	R	
0125H	00294	66	0	30	Thermal Average Voltage Imbalance	+327.67% / -327.68%	0.01%	F10	R	
0126H	00295	66	1	30	Thermal Average Current Imbalance	+327.67% / -327.68%	0.01%	F10	R	
Maximum Block										
0127H-012AH	00296-00299	67	0	50	Maximum Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
012BH-012CH	00300-00301	68	0	30	Maximum Thermal Average Phase A-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
012DH-012EH	00302-00303	68	1	30	Maximum Thermal Average Phase B-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
012FH-0130H	00304-00305	68	2	30	Maximum Thermal Average Phase C-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0133H-0134H	00308-00309	70	0	30	Maximum Thermal Average Phase A Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
0135H-0136H	00310-00311	70	1	30	Maximum Thermal Average Phase B Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
0137H-0138H	00312-00313	70	2	30	Maximum Thermal Average Phase C Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
0139H-013AH	00314-00315	71	0	30	Maximum Thermal Average Measured Neutral Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	
013BH-013CH	00316-00317	72	0	30	Maximum Thermal Average Calculated Neutral Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
013DH-013EH	00318-00319	73	0	30	Maximum Thermal Average Phase A-B Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
013FH-0140H	00320-00321	73	1	30	Maximum Thermal Average Phase B-C Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0141H-0142H	00322-00323	73	2	30	Maximum Thermal Average Phase C-A Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0143H-0144H	00324-00325	74	0	30	Maximum Thermal Average Phase A VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0145H-0146H	00326-00327	74	1	30	Maximum Thermal Average Phase B VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0147H-0148H	00328-00329	74	2	30	Maximum Thermal Average Phase C VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0149H-014AH	00330-00331	75	0	30	Maximum Thermal Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
014BH-014CH	00332-00333	76	0	30	Maximum Thermal Average Phase A Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
014DH-014EH	00334-00335	76	1	30	Maximum Thermal Average Phase B Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
014FH-0150H	00336-00337	76	2	30	Maximum Thermal Average Phase C Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
0151H-0152H	00338-00339	77	0	30	Maximum Thermal Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
0153H-0154H	00340-00341	78	0	30	Maximum Thermal Average Phase A Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0155H-0156H	00342-00343	78	1	30	Maximum Thermal Average Phase B Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0157H-0158H	00344-00345	78	2	30	Maximum Thermal Average Phase C Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0159H-015AH	00346-00347	79	0	30	Maximum Thermal Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
015BH-015CH	00348-00349	80	0	30	Maximum Thermal Average Phase A Watts Positive	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
015DH-015EH	00350-00351	80	1	30	Maximum Thermal Average Phase B Watts Positive	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
015FH-0160H	00352-00353	80	2	30	Maximum Thermal Average Phase C Watts Positive	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
0161H-0162H	00354-00355	81	0	30	Maximum Thermal Average Positive Watts	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
0163H-0164H	00356-00357	82	0	30	Maximum Thermal Average Phase A Watts Negative	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0165H-0166H	00358-00359	82	1	30	Maximum Thermal Average Phase B Watts Negative	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0167H-0168H	00360-00361	82	2	30	Maximum Thermal Average Phase C Watts Negative	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0169H-016AH	00362-00363	83	0	30	Maximum Thermal Average Negative Watts	0 W / -32768 W	1/ 65536 W sec	F7	R	9
016BH-016CH	00364-00365	84	0	30	Maximum Thermal Average Frequency	+ 32767 Hz / 0 Hz	1/ 65536 Hz	F7	R	
016DH	00366	85	0	30	Maximum Thermal Average Phase A Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
016EH	00367	85	1	30	Maximum Thermal Average Phase B Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
016FH	00368	85	2	30	Maximum Thermal Average Phase C Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
0170H	00369	86	0	30	Maximum Thermal Average Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
0171H	00370	87	0	30	Maximum Thermal Average Phase A Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
0172H	00371	87	1	30	Maximum Thermal Average Phase B Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
0173H	00372	87	2	30	Maximum Thermal Average Phase C Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
0174H	00373	88	0	30	Maximum Thermal Average Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
0175H	00374	89	0	30	Maximum Thermal Average Phase A Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
0176H	00375	89	1	30	Maximum Thermal Average Phase B Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
0177H	00376	89	2	30	Maximum Thermal Average Phase C Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
0178H	00377	90	0	30	Maximum Thermal Average Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
0179H	00378	91	0	30	Maximum Thermal Average Phase A Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
017AH	00379	91	1	30	Maximum Thermal Average Phase B Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
017BH	00380	91	2	30	Maximum Thermal Average Phase C Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
017CH	00381	92	0	30	Maximum Thermal Average Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
017DH	00382	93	0	30	Maximum Thermal Average Voltage Imbalance	+327.67% / -327.68%	0.01%	F10	R	
017EH	00383	93	1	30	Maximum Thermal Average Current Imbalance	+327.67% / -327.68%	0.01%	F10	R	
017FH	00384	94	0	30	Maximum THD Phase A-N / A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
0180H	00385	94	1	30	Maximum THD Phase B-N / B-C Voltage	+327.67% / -327.68%	0.01%	F10	R	
0181H	00386	94	2	30	Maximum THD Phase C-N / C-A Voltage	+327.67% / -327.68%	0.01%	F10	R	
0182H	00387	95	0	30	Maximum THD Phase A Current	+327.67% / -327.68%	0.01%	F10	R	
0183H	00388	95	1	30	Maximum THD Phase B Current	+327.67% / -327.68%	0.01%	F10	R	
0184H	00389	95	2	30	Maximum THD Phase C Current	+327.67% / -327.68%	0.01%	F10	R	
0185H	00390	96	0	30	Maximum K-Factor Phase A Current	327.67 / -327.68	0.01	F67	R	
0186H	00391	96	1	30	Maximum K-Factor Phase B Current	327.67 / -327.68	0.01	F67	R	
0187H	00392	96	2	30	Maximum K-Factor Phase C Current	327.67 / -327.68	0.01	F67	R	
0188H-0189H	00393-00394	97	0	30	Coincident Thermal Average VAR for Maximum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 W sec	F7	R	9
018AH-018BH	00395-00396	97	1	30	Coincident Thermal Average VAR for Maximum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 W sec	F7	R	9
Minimum Block										
018CH-018FH	00397-00400	98	0	50	Minimum Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0190H-0191H	00401-00402	99	0	30	Minimum Thermal Average Phase A-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0192H-0193H	00403-00404	99	1	30	Minimum Thermal Average Phase B-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0194H-0195H	00405-00406	99	2	30	Minimum Thermal Average Phase C-N Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0196H-0197H	00407-00408	100	0	30	Minimum Thermal Average Vaux Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
0198H-0199H	00409-00410	101	0	30	Minimum Thermal Average Phase A Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
019AH-019BH	00411-00412	101	1	30	Minimum Thermal Average Phase B Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
019CH-019DH	00413-00414	101	2	30	Minimum Thermal Average Phase C Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
019EH-019FH	00415-00416	102	0	30	Minimum Thermal Average Measured Neutral Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
01A0H-01A1H	00417-00418	103	0	30	Minimum Thermal Average Calculated Neutral Current	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
01A2H-01A3H	00419-00420	104	0	30	Minimum Thermal Average Phase A-B Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
01A4H-01A5H	00421-00422	104	1	30	Minimum Thermal Average Phase B-C Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
01A6H-01A7H	00423-00424	104	2	30	Minimum Thermal Average Phase C-A Voltage	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	4
01A8H-01A9H	00425-00426	105	0	30	Minimum Thermal Average Phase A VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
01AAH-01ABH	00427-00428	105	1	30	Minimum Thermal Average Phase B VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
01ACH-01ADH	00429-00430	105	2	30	Minimum Thermal Average Phase C VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
01AEH-01AFH	00431-00432	106	0	30	Minimum Thermal Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
01B0H-01B1H	00433-00434	107	0	30	Minimum Thermal Average Phase A Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
01B2H-01B3H	00435-00436	107	1	30	Minimum Thermal Average Phase B Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
01B4H-01B5H	00437-00438	107	2	30	Minimum Thermal Average Phase C Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
01B6H-01B7H	00439-00440	108	0	30	Minimum Thermal Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
01B8H-01B9H	00441-00442	109	0	30	Minimum Thermal Average Phase A Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
01BAH-01BBH	00443-00444	109	1	30	Minimum Thermal Average Phase B Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
01BCH-01BDH	00445-00446	109	2	30	Minimum Thermal Average Phase C Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
01BEH-01BFH	00447-00448	110	0	30	Minimum Thermal Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
01C0H-01C1H	00449-00450	111	0	30	Minimum Thermal Average Phase A Positive Watts	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
01C2H-01C3H	00451-00452	111	1	30	Minimum Thermal Average Phase B Positive Watts	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
01C4H-01C5H	00453-00454	111	2	30	Minimum Thermal Average Phase C Positive Watts	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
01C6H-01C7H	00455-00456	112	0	30	Minimum Thermal Average Positive Watts	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
01C8H-01C9H	00457-00458	113	0	30	Minimum Thermal Average Phase A Negative Watts	0 W / -32768 W	1/ 65536 W sec	F7	R	9
01CAH-01CBH	00459-00460	113	1	30	Minimum Thermal Average Phase B Negative Watts	0 W / -32768 W	1/ 65536 W sec	F7	R	9
01CCH-01CDH	00461-00462	113	2	30	Minimum Thermal Average Phase C Negative Watts	0 W / -32768 W	1/ 65536 W sec	F7	R	9
01CEH-01CFH	00463-00464	114	0	30	Minimum Thermal Average Negative Watts	0 W / -32768 W	1/ 65536 W sec	F7	R	9
01D0H-01D1H	00465-00466	115	0	30	Minimum Thermal Average Frequency	+ 32767 Hz / 0 Hz	1/ 65536 Hz	F7	R	
01D2H	00467	116	0	30	Minimum Thermal Average Phase A Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
01D3H	00468	116	1	30	Minimum Thermal Average Phase B Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
01D4H	00469	116	2	30	Minimum Thermal Average Phase C Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
01D5H	00470	117	0	30	Minimum Thermal Average Power Factor Quadrant 1	0.999 / 0	0.001 PF	F8	R	
01D6H	00471	118	0	30	Minimum Thermal Average Phase A Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
01D7H	00472	118	1	30	Minimum Thermal Average Phase B Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
01D8H	00473	118	2	30	Minimum Thermal Average Phase C Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	
01D9H	00474	119	0	30	Minimum Thermal Average Power Factor Quadrant 2	3.999 / 3.000	0.001 PF	F8	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
01DAH	00475	120	0	30	Minimum Thermal Average Phase A Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
01DBH	00476	120	1	30	Minimum Thermal Average Phase B Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
01DCH	00477	120	2	30	Minimum Thermal Average Phase C Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
01DDH	00478	121	0	30	Minimum Thermal Average Power Factor Quadrant 3	2.999 / 2.000	0.001 PF	F8	R	
01DEH	00479	122	0	30	Minimum Thermal Average Phase A Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
01DFH	00480	122	1	30	Minimum Thermal Average Phase B Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
01E0H	00481	122	2	30	Minimum Thermal Average Phase C Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
01E1H	00482	123	0	30	Minimum Thermal Average Power Factor Quadrant 4	1.999 / 1.000	0.001 PF	F8	R	
01E2H	00483	124	0	30	Minimum Thermal Average Voltage Imbalance	+327.67% / -327.68%	0.01%	F10	R	
01E3H	00484	124	1	30	Minimum Thermal Average Current Imbalance	+327.67% / -327.68%	0.01%	F10	R	
01E4H	00485	125	0	30	Minimum THD Phase A-N Voltage / Phase A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
01E5H	00486	125	1	30	Minimum THD Phase B-N Voltage / Phase B-C Voltage	+327.67% / -327.68%	0.01%	F10	R	
01E6H	00487	125	2	30	Minimum THD Phase C-N Voltage / Phase C-A Voltage	+327.67% / -327.68%	0.01%	F10	R	
01E7H	00488	126	0	30	Minimum THD Phase A Current	+327.67% / -327.68%	0.01%	F10	R	
01E8H	00489	126	1	30	Minimum THD Phase B Current	+327.67% / -327.68%	0.01%	F10	R	
01E9H	00490	126	2	30	Minimum THD Phase C Current	+327.67% / -327.68%	0.01%	F10	R	
01EAH	00491	127	0	30	Minimum K-Factor Phase A Current	327.67 / -327.68	0.01	F67	R	
01EBH	00492	127	1	30	Minimum K-Factor Phase B Current	327.67 / -327.68	0.01	F67	R	
01ECH	00493	127	2	30	Minimum K-Factor Phase C Current	327.67 / -327.68	0.01	F67	R	
01EDH-01EEH	00494-00495	128	0	30	Coincident Thermal Average VAR for Minimum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 W sec	F7	R	9
01EFH-01F0H	00496-00497	128	1	30	Coincident Thermal Average VAR for Minimum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 W sec	F7	R	9
Stamp Block										
01FH-01F4H	00498-00501	129	0	50	Maximum Thermal Average Phase A-N Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
01F5H-01F8H	00502-00505	129	1	50	Maximum Thermal Average Phase B-N Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
01F9H-01FCH	00506-00509	129	2	50	Maximum Thermal Average Phase C-N Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
01FDH-0200H	00510-00513	129	3	50	Maximum Thermal Average Auxiliary Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0201H-0204H	00514-00517	129	4	50	Maximum Thermal Average Phase A Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0205H-0208H	00518-00521	129	5	50	Maximum Thermal Average Phase B Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0209H-020CH	00522-00525	129	6	50	Maximum Thermal Average Phase C Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
020DH-0210H	00526-00529	129	7	50	Maximum Thermal Average Measured Neutral Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0211H-0214H	00530-00533	129	8	50	Maximum Thermal Average Calculated Neutral Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0215H-0218H	00534-00537	129	9	50	Maximum Thermal Average Phase A-B Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0219H-021CH	00538-00541	129	10	50	Maximum Thermal Average Phase B-C Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
021DH-0220H	00542-00545	129	11	50	Maximum Thermal Average Phase C-A Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0221H-0224H	00546-00549	129	12	50	Maximum Thermal Average Phase A VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0225H-0228H	00550-00553	129	13	50	Maximum Thermal Average Phase B VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0229H-022CH	00554-00557	129	14	50	Maximum Thermal Average Phase C VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
022DH-0230H	00558-00561	129	15	50	Maximum Thermal Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0231H-0234H	00562-00565	129	16	50	Maximum Thermal Average Phase A Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0235H-0238H	00566-00569	129	17	50	Maximum Thermal Average Phase B Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0239H-023CH	00570-00573	129	18	50	Maximum Thermal Average Phase C Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
023DH-0240H	00574-00577	129	19	50	Maximum Thermal Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0241H-0244H	00578-00581	129	20	50	Maximum Thermal Average Phase A Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0245H-0248H	00582-00585	129	21	50	Maximum Thermal Average Phase B Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0249H-024CH	00586-00589	129	22	50	Maximum Thermal Average Phase C Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
024DH-0250H	00590-00593	129	23	50	Maximum Thermal Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0251H-0254H	00594-00597	129	24	50	Maximum Thermal Average Phase A Watts Positive Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0255H-0258H	00598-00601	129	25	50	Maximum Thermal Average Phase B Watts Positive Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0259H-025CH	00602-00605	129	26	50	Maximum Thermal Average Phase C Watts Positive Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
025DH-0260H	00606-00609	129	27	50	Maximum Thermal Average Positive Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0261H-0264H	00610-00613	129	28	50	Maximum Thermal Average Phase A Watts Negative Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0265H-0268H	00614-00617	129	29	50	Maximum Thermal Average Phase B Watts Negative Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0269H-026CH	00618-00621	129	30	50	Maximum Thermal Average Phase C Watts Negative Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
026DH-0270H	00622-00625	129	31	50	Maximum Thermal Average Negative Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0271H-0274H	00626-00629	129	32	50	Maximum Thermal Average Frequency Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0275H-0278H	00630-00633	129	33	50	Maximum Thermal Average Phase A Power Factor Quadrant 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0279H-027CH	00634-00637	129	34	50	Maximum Thermal Average Phase B Power Factor Quadrant 1	12/31/9999 23:59:59.99	10 msec	F3	R	1
027DH-0280H	00638-00641	129	35	50	Maximum Thermal Average Phase C Power Factor Quadrant 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0281H-0284H	00642-00645	129	36	50	Maximum Thermal Average Power Factor Quadrant 1	12/31/9999 23:59:59.99	10 msec	F3	R	1
0285H-0288H	00646-00649	129	37	50	Maximum Thermal Average Phase A Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0289H-028CH	00650-00653	129	38	50	Maximum Thermal Average Phase B Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
028DH-0290H	00654-00657	129	39	50	Maximum Thermal Average Phase C Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0291H-0294H	00658-00661	129	40	50	Maximum Thermal Average Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0295H-0298H	00662-00665	129	41	50	Maximum Thermal Average Phase A Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0299H-029CH	00666-00669	129	42	50	Maximum Thermal Average Phase B Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
029DH-02A0H	00670-00673	129	43	50	Maximum Thermal Average Phase C Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02A1H-02A4H	00674-00677	129	44	50	Maximum Thermal Average Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02A5H-02A8H	00678-00681	129	45	50	Maximum Thermal Average Phase A Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02A9H-02ACH	00682-00685	129	46	50	Maximum Thermal Average Phase B Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02ADH-02B0H	00686-00689	129	47	50	Maximum Thermal Average Phase C Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02B1H-02B4H	00690-00693	129	48	50	Maximum Thermal Average Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02B5H-02B8H	00694-00697	129	49	50	Maximum Thermal Average Voltage Imbalance Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02B9H-02BCH	00698-00701	129	50	50	Maximum Thermal Average Current Imbalance Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02BDH-02C0H	00702-00705	129	51	50	Maximum THD Phase A-N / A-B Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02C1H-02C4H	00706-00709	129	52	50	Maximum THD Phase B-N / B-C Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02C5H-02C8H	00710-00713	129	53	50	Maximum THD Phase C-N / C-A Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02C9H-02CCH	00714-00717	129	54	50	Maximum THD Phase A Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02CDH-02D0H	00718-00721	129	55	50	Maximum THD Phase B Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02D1H-02D4H	00722-00725	129	56	50	Maximum THD Phase C Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02D5H-02D8H	00726-00729	129	57	50	Maximum K-Factor Phase A Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02D9H-02DCH	00730-00733	129	58	50	Maximum K-Factor Phase B Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02DDH-02E0H	00734-00737	129	59	50	Maximum K-Factor Phase C Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
Minimum Time Stamp Block										
02E1H-02E4H	00738-00741	130	0	50	Minimum Thermal Average Phase A-N Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02E5H-02E8H	00742-00745	130	1	50	Minimum Thermal Average Phase B-N Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02E9H-02ECH	00746-00749	130	2	50	Minimum Thermal Average Phase C-N Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02EDH-02F0H	00750-00753	130	3	50	Minimum Thermal Average Auxiliary Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02F1H-02F4H	00754-00757	130	4	50	Minimum Thermal Average Phase A Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02F5H-02F8H	00758-00761	130	5	50	Minimum Thermal Average Phase B Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02F9H-02FCH	00762-00765	130	6	50	Minimum Thermal Average Phase C Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
02FDH-0300H	00766-00769	130	7	50	Minimum Thermal Average Measured Neutral Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0301H-0304H	00770-00773	130	8	50	Minimum Thermal Average Calculated Neutral Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0305H-0308H	00774-00777	130	9	50	Minimum Thermal Average Phase A-B Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0309H-030CH	00778-00781	130	10	50	Minimum Thermal Average Phase B-C Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
030DH-0310H	00782-00785	130	11	50	Minimum Thermal Average Phase C-A Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0311H-0314H	00786-00789	130	12	50	Minimum Thermal Average Phase A VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0315H-0318H	00790-00793	130	13	50	Minimum Thermal Average Phase B VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0319H-031CH	00794-00797	130	14	50	Minimum Thermal Average Phase C VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
031DH-0320H	00798-00801	130	15	50	Minimum Thermal Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0321H-0324H	00802-00805	130	16	50	Minimum Thermal Average Phase A Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0325H-0328H	00806-00809	130	17	50	Minimum Thermal Average Phase B Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0329H-032CH	00810-00813	130	18	50	Minimum Thermal Average Phase C Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
032DH-0330H	00814-00817	130	19	50	Minimum Thermal Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0331H-0334H	00818-00821	130	20	50	Minimum Thermal Average Phase A Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0335H-0338H	00822-00825	130	21	50	Minimum Thermal Average Phase B Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0339H-033CH	00826-00829	130	22	50	Minimum Thermal Average Phase C Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
033DH-0340H	00830-00833	130	23	50	Minimum Thermal Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0341H-0344H	00834-00837	130	24	50	Minimum Thermal Average Phase A Positive Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0345H-0348H	00838-00841	130	25	50	Minimum Thermal Average Phase B Positive Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0349H-034CH	00842-00845	130	26	50	Minimum Thermal Average Phase C Positive Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
034DH-0350H	00846-00849	130	27	50	Minimum Thermal Average Positive Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0351H-0354H	00850-00853	130	28	50	Minimum Thermal Average Phase A Negative Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0355H-0358H	00854-00857	130	29	50	Minimum Thermal Average Phase B Negative Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0359H-035CH	00858-00861	130	30	50	Minimum Thermal Average Phase C Negative Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
035DH-0360H	00862-00865	130	31	50	Minimum Thermal Average Negative Watts Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0361H-0364H	00866-00869	130	32	50	Minimum Thermal Average Frequency Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0365H-0368H	00870-00873	130	33	50	Minimum Thermal Average Phase A Power Factor Quadrant 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0369H-036CH	00874-00877	130	34	50	Minimum Thermal Average Phase B Power Factor Quadrant 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
036DH-0370H	00878-00881	130	35	50	Minimum Thermal Average Phase C Power Factor Quadrant 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0371H-0374H	00882-00885	130	36	50	Minimum Thermal Average Power Factor Quadrant 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0375H-0378H	00886-00889	130	37	50	Minimum Thermal Average Phase A Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0379H-037CH	00890-00893	130	38	50	Minimum Thermal Average Phase B Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
037DH-0380H	00894-00897	130	39	50	Minimum Thermal Average Phase C Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0381H-0384H	00898-00901	130	40	50	Minimum Thermal Average Power Factor Quadrant 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0385H-0388H	00902-00905	130	41	50	Minimum Thermal Average Phase A Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0389H-038CH	00906-00909	130	42	50	Minimum Thermal Average Phase B Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
038DH-0390H	00910-00913	130	43	50	Minimum Thermal Average Phase C Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0391H-0394H	00914-00917	130	44	50	Minimum Thermal Average Power Factor Quadrant 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0395H-0398H	00918-00921	130	45	50	Minimum Thermal Average Phase A Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0399H-039CH	00922-00925	130	46	50	Minimum Thermal Average Phase B Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
039DH-03A0H	00926-00929	130	47	50	Minimum Thermal Average Phase C Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03A1H-03A4H	00930-00933	130	48	50	Minimum Thermal Average Power Factor Quadrant 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03A5H-03A8H	00934-00937	130	49	50	Minimum Thermal Average Voltage Imbalance Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03A9H-03ACH	00938-00941	130	50	50	Minimum Thermal Average Current Imbalance Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03ADH-03B0H	00942-00945	130	51	50	Minimum THD Phase A-N Voltage / Phase A-B Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03B1H-01B4H	00946-00949	130	52	50	Minimum THD Phase B-N Voltage / Phase B-C Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03B5H-03B8H	00950-00953	130	53	50	Minimum THD Phase C-N Voltage / Phase C-A Voltage Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03B9H-03BCH	00954-00957	130	54	50	Minimum THD Phase A Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03BDH-03C0H	00958-00961	130	55	50	Minimum THD Phase B Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03C1H-03C4H	00962-00965	130	56	50	Minimum THD Phase C Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03C5H-03C8H	00966-00969	130	57	50	Minimum K-Factor Phase A Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03C9H-03CCH	00970-00973	130	58	50	Minimum K-Factor Phase B Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03CDH-03D0H	00974-00977	130	59	50	Minimum K-Factor Phase C Current Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
Energy Block (Secondary)										
03D1H-03D4H	00978-00981	131	0	50	Energy Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
03D5H-03D8H	00982-00985	132	0	20	V.Ahour (BCD)	+9,999,999,999,999,999 VAh / 0 VAh	1 VA _H	F11	R	
03D9H-03DCH	00986-00989	132	1	20	Positive VARhour (BCD)	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR _H	F11	R	
03DDH-03E0H	00990-00993	132	2	20	Negative VARhour (BCD)	0 VARh / -9,999,999,999,999,999 VARh	1 VAR _H	F11	R	
03E1H-03E4H	00994-00997	132	3	20	Positive Watthour (BCD)	+9,999,999,999,999,999 Wh / 0 Wh	1 W _H	F11	R	
03E5H-03E8H	00998-01001	132	4	20	Negative Watthour (BCD)	0 Wh / -9,999,999,999,999,999 Wh	1 W _H	F11	R	
03E9H-03ECH	01002-01005	133	0	20	V.Ahour (Binary)	+9,999,999,999,999,999 VAh / 0 VAh	1 VA _H	F12	R	
03EDH-03F0H	01006-01009	133	1	20	Positive VARhour (Binary)	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR _H	F12	R	
03F1H-03F4H	01010-01013	133	2	20	Negative VARhour (Binary)	0 VARh / -9,999,999,999,999,999 VARh	1 VAR _H	F12	R	
03F5H-03F8H	01014-01017	133	3	20	Positive Watthour (Binary)	+9,999,999,999,999,999 Wh / 0 Wh	1 W _H	F12	R	
03F9H-03FCH	01018-01021	133	4	20	Negative Watthour (Binary)	0 Wh / -9,999,999,999,999,999 Wh	1 W _H	F12	R	
Harmonic Magnitude Block (IEC 61000-4-30 1.6 sec Update)										
03FDH	01022	134	0	30	Phase A-N / Phase A-B Voltage 0 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
03FEH	01023	134	1	30	Phase A-N / Phase A-B Voltage 1 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
03FFH	01024	134	2	30	Phase A-N / Phase A-B Voltage 2 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0400H	01025	134	3	30	Phase A-N / Phase A-B Voltage 3 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0401H	01026	134	4	30	Phase A-N / Phase A-B Voltage 4 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0402H	01027	134	5	30	Phase A-N / Phase A-B Voltage 5 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0403H	01028	134	6	30	Phase A-N / Phase A-B Voltage 6 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0404H	01029	134	7	30	Phase A-N / Phase A-B Voltage 7 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0405H	01030	135	0	30	Phase A-N / Phase A-B Voltage 8 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0406H	01031	135	1	30	Phase A-N / Phase A-B Voltage 9 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0407H	01032	135	2	30	Phase A-N / Phase A-B Voltage 10 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0408H	01033	135	3	30	Phase A-N / Phase A-B Voltage 11 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0409H	01034	135	4	30	Phase A-N / Phase A-B Voltage 12 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
040AH	01035	135	5	30	Phase A-N / Phase A-B Voltage 13 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
040BH	01036	135	6	30	Phase A-N / Phase A-B Voltage 14 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
040CH	01037	135	7	30	Phase A-N / Phase A-B Voltage 15 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
040DH	01038	136	0	30	Phase A-N / Phase A-B Voltage 16 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
040EH	01039	136	1	30	Phase A-N / Phase A-B Voltage 17 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
040FH	01040	136	2	30	Phase A-N / Phase A-B Voltage 18 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0410H	01041	136	3	30	Phase A-N / Phase A-B Voltage 19 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0411H	01042	136	4	30	Phase A-N / Phase A-B Voltage 20 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0412H	01043	136	5	30	Phase A-N / Phase A-B Voltage 21 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0413H	01044	136	6	30	Phase A-N / Phase A-B Voltage 22 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0414H	01045	136	7	30	Phase A-N / Phase A-B Voltage 23 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0415H	01046	136	8	30	Phase A-N / Phase A-B Voltage 24 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0416H	01047	136	9	30	Phase A-N / Phase A-B Voltage 25 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0417H	01048	136	10	30	Phase A-N / Phase A-B Voltage 26 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0418H	01049	136	11	30	Phase A-N / Phase A-B Voltage 27 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0419H	01050	136	12	30	Phase A-N / Phase A-B Voltage 28 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
041AH	01051	136	13	30	Phase A-N / Phase A-B Voltage 29 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
041BH	01052	136	14	30	Phase A-N / Phase A-B Voltage 30 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
041CH	01053	136	15	30	Phase A-N / Phase A-B Voltage 31 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
041DH	01054	137	0	30	Phase A-N / Phase A-B Voltage 32 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
041EH	01055	137	1	30	Phase A-N / Phase A-B Voltage 33 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
041FH	01056	137	2	30	Phase A-N / Phase A-B Voltage 34 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0420H	01057	137	3	30	Phase A-N / Phase A-B Voltage 35 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0421H	01058	137	4	30	Phase A-N / Phase A-B Voltage 36 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0422H	01059	137	5	30	Phase A-N / Phase A-B Voltage 37 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0423H	01060	137	6	30	Phase A-N / Phase A-B Voltage 38 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0424H	01061	137	7	30	Phase A-N / Phase A-B Voltage 39 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0425H	01062	137	8	30	Phase A-N / Phase A-B Voltage 40 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0426H	01063	137	9	30	Phase A-N / Phase A-B Voltage 41 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0427H	01064	137	10	30	Phase A-N / Phase A-B Voltage 42 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0428H	01065	137	11	30	Phase A-N / Phase A-B Voltage 43 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0429H	01066	137	12	30	Phase A-N / Phase A-B Voltage 44 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
042AH	01067	137	13	30	Phase A-N / Phase A-B Voltage 45 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
042BH	01068	137	14	30	Phase A-N / Phase A-B Voltage 46 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
042CH	01069	137	15	30	Phase A-N / Phase A-B Voltage 47 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
042DH	01070	137	16	30	Phase A-N / Phase A-B Voltage 48 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
042EH	01071	137	17	30	Phase A-N / Phase A-B Voltage 49 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
042FH	01072	137	18	30	Phase A-N / Phase A-B Voltage 50 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0430H	01073	137	19	30	Phase A-N / Phase A-B Voltage 51 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0431H	01074	137	20	30	Phase A-N / Phase A-B Voltage 52 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0432H	01075	137	21	30	Phase A-N / Phase A-B Voltage 53 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0433H	01076	137	22	30	Phase A-N / Phase A-B Voltage 54 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0434H	01077	137	23	30	Phase A-N / Phase A-B Voltage 55 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0435H	01078	137	24	30	Phase A-N / Phase A-B Voltage 56 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0436H	01079	137	25	30	Phase A-N / Phase A-B Voltage 57 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0437H	01080	137	26	30	Phase A-N / Phase A-B Voltage 58 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0438H	01081	137	27	30	Phase A-N / Phase A-B Voltage 59 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0439H	01082	137	28	30	Phase A-N / Phase A-B Voltage 60 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
043AH	01083	137	29	30	Phase A-N / Phase A-B Voltage 61 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
043BH	01084	137	30	30	Phase A-N / Phase A-B Voltage 62 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
043CH	01085	137	31	30	Phase A-N / Phase A-B Voltage 63 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
043DH	01086	138	0	30	Phase A-N / Phase A-B Voltage 64 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
043EH	01087	138	1	30	Phase A-N / Phase A-B Voltage 65 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
043FH	01088	138	2	30	Phase A-N / Phase A-B Voltage 66 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0440H	01089	138	3	30	Phase A-N / Phase A-B Voltage 67 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0441H	01090	138	4	30	Phase A-N / Phase A-B Voltage 68 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0442H	01091	138	5	30	Phase A-N / Phase A-B Voltage 69 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0443H	01092	138	6	30	Phase A-N / Phase A-B Voltage 70 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0444H	01093	138	7	30	Phase A-N / Phase A-B Voltage 71 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0445H	01094	138	8	30	Phase A-N / Phase A-B Voltage 72 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0446H	01095	138	9	30	Phase A-N / Phase A-B Voltage 73 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0447H	01096	138	10	30	Phase A-N / Phase A-B Voltage 74 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0448H	01097	138	11	30	Phase A-N / Phase A-B Voltage 75 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0449H	01098	138	12	30	Phase A-N / Phase A-B Voltage 76 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
044AH	01099	138	13	30	Phase A-N / Phase A-B Voltage 77 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
044BH	01100	138	14	30	Phase A-N / Phase A-B Voltage 78 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
044CH	01101	138	15	30	Phase A-N / Phase A-B Voltage 79 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
044DH	01102	138	16	30	Phase A-N / Phase A-B Voltage 80 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
044EH	01103	138	17	30	Phase A-N / Phase A-B Voltage 81 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
044FH	01104	138	18	30	Phase A-N / Phase A-B Voltage 82 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0450H	01105	138	19	30	Phase A-N / Phase A-B Voltage 83 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0451H	01106	138	20	30	Phase A-N / Phase A-B Voltage 84 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0452H	01107	138	21	30	Phase A-N / Phase A-B Voltage 85 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0453H	01108	138	22	30	Phase A-N / Phase A-B Voltage 86 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0454H	01109	138	23	30	Phase A-N / Phase A-B Voltage 87 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0455H	01110	138	24	30	Phase A-N / Phase A-B Voltage 88 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0456H	01111	138	25	30	Phase A-N / Phase A-B Voltage 89 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0457H	01112	138	26	30	Phase A-N / Phase A-B Voltage 90 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0458H	01113	138	27	30	Phase A-N / Phase A-B Voltage 91 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0459H	01114	138	28	30	Phase A-N / Phase A-B Voltage 92 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
045AH	01115	138	29	30	Phase A-N / Phase A-B Voltage 93 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
045BH	01116	138	30	30	Phase A-N / Phase A-B Voltage 94 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
045CH	01117	138	31	30	Phase A-N / Phase A-B Voltage 95 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
045DH	01118	138	32	30	Phase A-N / Phase A-B Voltage 96 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
045EH	01119	138	33	30	Phase A-N / Phase A-B Voltage 97 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
045FH	01120	138	34	30	Phase A-N / Phase A-B Voltage 98 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0460H	01121	138	35	30	Phase A-N / Phase A-B Voltage 99 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0461H	01122	138	36	30	Phase A-N / Phase A-B Voltage 100 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0462H	01123	138	37	30	Phase A-N / Phase A-B Voltage 101 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0463H	01124	138	38	30	Phase A-N / Phase A-B Voltage 102 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0464H	01125	138	39	30	Phase A-N / Phase A-B Voltage 103 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0465H	01126	138	40	30	Phase A-N / Phase A-B Voltage 104 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0466H	01127	138	41	30	Phase A-N / Phase A-B Voltage 105 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0467H	01128	138	42	30	Phase A-N / Phase A-B Voltage 106 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0468H	01129	138	43	30	Phase A-N / Phase A-B Voltage 107 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0469H	01130	138	44	30	Phase A-N / Phase A-B Voltage 108 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
046AH	01131	138	45	30	Phase A-N / Phase A-B Voltage 109 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
046BH	01132	138	46	30	Phase A-N / Phase A-B Voltage 110 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
046CH	01133	138	47	30	Phase A-N / Phase A-B Voltage 111 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
046DH	01134	138	48	30	Phase A-N / Phase A-B Voltage 112 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
046EH	01135	138	49	30	Phase A-N / Phase A-B Voltage 113 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
046FH	01136	138	50	30	Phase A-N / Phase A-B Voltage 114 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0470H	01137	138	51	30	Phase A-N / Phase A-B Voltage 115 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0471H	01138	138	52	30	Phase A-N / Phase A-B Voltage 116 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0472H	01139	138	53	30	Phase A-N / Phase A-B Voltage 117 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0473H	01140	138	54	30	Phase A-N / Phase A-B Voltage 118 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0474H	01141	138	55	30	Phase A-N / Phase A-B Voltage 119 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0475H	01142	138	56	30	Phase A-N / Phase A-B Voltage 120 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0476H	01143	138	57	30	Phase A-N / Phase A-B Voltage 121 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0477H	01144	138	58	30	Phase A-N / Phase A-B Voltage 122 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0478H	01145	138	59	30	Phase A-N / Phase A-B Voltage 123 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0479H	01146	138	60	30	Phase A-N / Phase A-B Voltage 124 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
047AH	01147	138	61	30	Phase A-N / Phase A-B Voltage 125 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
047BH	01148	138	62	30	Phase A-N / Phase A-B Voltage 126 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
047CH	01149	138	63	30	Phase A-N / Phase A-B Voltage 127 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
047DH	01150	139	0	30	Phase B-N / Phase B-C Voltage 0 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
047EH	01151	139	1	30	Phase B-N / Phase B-C Voltage 1 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
047FH	01152	139	2	30	Phase B-N / Phase B-C Voltage 2 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0480H	01153	139	3	30	Phase B-N / Phase B-C Voltage 3 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0481H	01154	139	4	30	Phase B-N / Phase B-C Voltage 4 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0482H	01155	139	5	30	Phase B-N / Phase B-C Voltage 5 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0483H	01156	139	6	30	Phase B-N / Phase B-C Voltage 6 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0484H	01157	139	7	30	Phase B-N / Phase B-C Voltage 7 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0485H	01158	140	0	30	Phase B-N / Phase B-C Voltage 8 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0486H	01159	140	1	30	Phase B-N / Phase B-C Voltage 9 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0487H	01160	140	2	30	Phase B-N / Phase B-C Voltage 10 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0488H	01161	140	3	30	Phase B-N / Phase B-C Voltage 11 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0489H	01162	140	4	30	Phase B-N / Phase B-C Voltage 12 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
048AH	01163	140	5	30	Phase B-N / Phase B-C Voltage 13 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
048BH	01164	140	6	30	Phase B-N / Phase B-C Voltage 14 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
048CH	01165	140	7	30	Phase B-N / Phase B-C Voltage 15 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
048DH	01166	141	0	30	Phase B-N / Phase B-C Voltage 16 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
048EH	01167	141	1	30	Phase B-N / Phase B-C Voltage 17 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
048FH	01168	141	2	30	Phase B-N / Phase B-C Voltage 18 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0490H	01169	141	3	30	Phase B-N / Phase B-C Voltage 19 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0491H	01170	141	4	30	Phase B-N / Phase B-C Voltage 20 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0492H	01171	141	5	30	Phase B-N / Phase B-C Voltage 21 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0493H	01172	141	6	30	Phase B-N / Phase B-C Voltage 22 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0494H	01173	141	7	30	Phase B-N / Phase B-C Voltage 23 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0495H	01174	141	8	30	Phase B-N / Phase B-C Voltage 24 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0496H	01175	141	9	30	Phase B-N / Phase B-C Voltage 25 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0497H	01176	141	10	30	Phase B-N / Phase B-C Voltage 26 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0498H	01177	141	11	30	Phase B-N / Phase B-C Voltage 27 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0499H	01178	141	12	30	Phase B-N / Phase B-C Voltage 28 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
049AH	01179	141	13	30	Phase B-N / Phase B-C Voltage 29 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
049BH	01180	141	14	30	Phase B-N / Phase B-C Voltage 30 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
049CH	01181	141	15	30	Phase B-N / Phase B-C Voltage 31 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
049DH	01182	142	0	30	Phase B-N / Phase B-C Voltage 32 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
049EH	01183	142	1	30	Phase B-N / Phase B-C Voltage 33 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
049FH	01184	142	2	30	Phase B-N / Phase B-C Voltage 34 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A0H	01185	142	3	30	Phase B-N / Phase B-C Voltage 35 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A1H	01186	142	4	30	Phase B-N / Phase B-C Voltage 36 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A2H	01187	142	5	30	Phase B-N / Phase B-C Voltage 37 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A3H	01188	142	6	30	Phase B-N / Phase B-C Voltage 38 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A4H	01189	142	7	30	Phase B-N / Phase B-C Voltage 39 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A5H	01190	142	8	30	Phase B-N / Phase B-C Voltage 40 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A6H	01191	142	9	30	Phase B-N / Phase B-C Voltage 41 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A7H	01192	142	10	30	Phase B-N / Phase B-C Voltage 42 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A8H	01193	142	11	30	Phase B-N / Phase B-C Voltage 43 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04A9H	01194	142	12	30	Phase B-N / Phase B-C Voltage 44 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04AAH	01195	142	13	30	Phase B-N / Phase B-C Voltage 45 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04ABH	01196	142	14	30	Phase B-N / Phase B-C Voltage 46 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04ACH	01197	142	15	30	Phase B-N / Phase B-C Voltage 47 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04ADH	01198	142	16	30	Phase B-N / Phase B-C Voltage 48 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04AEH	01199	142	17	30	Phase B-N / Phase B-C Voltage 49 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04AFH	01200	142	18	30	Phase B-N / Phase B-C Voltage 50 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B0H	01201	142	19	30	Phase B-N / Phase B-C Voltage 51 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B1H	01202	142	20	30	Phase B-N / Phase B-C Voltage 52 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B2H	01203	142	21	30	Phase B-N / Phase B-C Voltage 53 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B3H	01204	142	22	30	Phase B-N / Phase B-C Voltage 54 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B4H	01205	142	23	30	Phase B-N / Phase B-C Voltage 55 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B5H	01206	142	24	30	Phase B-N / Phase B-C Voltage 56 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B6H	01207	142	25	30	Phase B-N / Phase B-C Voltage 57 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
04B7H	01208	142	26	30	Phase B-N / Phase B-C Voltage 58 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B8H	01209	142	27	30	Phase B-N / Phase B-C Voltage 59 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04B9H	01210	142	28	30	Phase B-N / Phase B-C Voltage 60 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04BAH	01211	142	29	30	Phase B-N / Phase B-C Voltage 61 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04BBH	01212	142	30	30	Phase B-N / Phase B-C Voltage 62 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04BCH	01213	142	31	30	Phase B-N / Phase B-C Voltage 63 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04BDH	01214	143	0	30	Phase B-N / Phase B-C Voltage 64 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04BEH	01215	143	1	30	Phase B-N / Phase B-C Voltage 65 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04BFH	01216	143	2	30	Phase B-N / Phase B-C Voltage 66 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04COH	01217	143	3	30	Phase B-N / Phase B-C Voltage 67 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C1H	01218	143	4	30	Phase B-N / Phase B-C Voltage 68 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C2H	01219	143	5	30	Phase B-N / Phase B-C Voltage 69 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C3H	01220	143	6	30	Phase B-N / Phase B-C Voltage 70 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C4H	01221	143	7	30	Phase B-N / Phase B-C Voltage 71 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C5H	01222	143	8	30	Phase B-N / Phase B-C Voltage 72 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C6H	01223	143	9	30	Phase B-N / Phase B-C Voltage 73 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C7H	01224	143	10	30	Phase B-N / Phase B-C Voltage 74 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C8H	01225	143	11	30	Phase B-N / Phase B-C Voltage 75 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04C9H	01226	143	12	30	Phase B-N / Phase B-C Voltage 76 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04CAH	01227	143	13	30	Phase B-N / Phase B-C Voltage 77 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04CBH	01228	143	14	30	Phase B-N / Phase B-C Voltage 78 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04CCH	01229	143	15	30	Phase B-N / Phase B-C Voltage 79 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04CDH	01230	143	16	30	Phase B-N / Phase B-C Voltage 80 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04CEH	01231	143	17	30	Phase B-N / Phase B-C Voltage 81 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04CFH	01232	143	18	30	Phase B-N / Phase B-C Voltage 82 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D0H	01233	143	19	30	Phase B-N / Phase B-C Voltage 83 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D1H	01234	143	20	30	Phase B-N / Phase B-C Voltage 84 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D2H	01235	143	21	30	Phase B-N / Phase B-C Voltage 85 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D3H	01236	143	22	30	Phase B-N / Phase B-C Voltage 86 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D4H	01237	143	23	30	Phase B-N / Phase B-C Voltage 87 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D5H	01238	143	24	30	Phase B-N / Phase B-C Voltage 88 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D6H	01239	143	25	30	Phase B-N / Phase B-C Voltage 89 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D7H	01240	143	26	30	Phase B-N / Phase B-C Voltage 90 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D8H	01241	143	27	30	Phase B-N / Phase B-C Voltage 91 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04D9H	01242	143	28	30	Phase B-N / Phase B-C Voltage 92 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04DAH	01243	143	29	30	Phase B-N / Phase B-C Voltage 93 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04DBH	01244	143	30	30	Phase B-N / Phase B-C Voltage 94 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04DCH	01245	143	31	30	Phase B-N / Phase B-C Voltage 95 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04DDH	01246	143	32	30	Phase B-N / Phase B-C Voltage 96 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04DEH	01247	143	33	30	Phase B-N / Phase B-C Voltage 97 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04DFH	01248	143	34	30	Phase B-N / Phase B-C Voltage 98 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E0H	01249	143	35	30	Phase B-N / Phase B-C Voltage 99 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E1H	01250	143	36	30	Phase B-N / Phase B-C Voltage 100 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E2H	01251	143	37	30	Phase B-N / Phase B-C Voltage 101 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E3H	01252	143	38	30	Phase B-N / Phase B-C Voltage 102 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E4H	01253	143	39	30	Phase B-N / Phase B-C Voltage 103 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E5H	01254	143	40	30	Phase B-N / Phase B-C Voltage 104 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E6H	01255	143	41	30	Phase B-N / Phase B-C Voltage 105 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E7H	01256	143	42	30	Phase B-N / Phase B-C Voltage 106 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E8H	01257	143	43	30	Phase B-N / Phase B-C Voltage 107 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04E9H	01258	143	44	30	Phase B-N / Phase B-C Voltage 108 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04EAH	01259	143	45	30	Phase B-N / Phase B-C Voltage 109 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04EBH	01260	143	46	30	Phase B-N / Phase B-C Voltage 110 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04ECH	01261	143	47	30	Phase B-N / Phase B-C Voltage 111 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04EDH	01262	143	48	30	Phase B-N / Phase B-C Voltage 112 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04EEH	01263	143	49	30	Phase B-N / Phase B-C Voltage 113 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
04EFH	01264	143	50	30	Phase B-N / Phase B-C Voltage 114 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FOH	01265	143	51	30	Phase B-N / Phase B-C Voltage 115 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FIH	01266	143	52	30	Phase B-N / Phase B-C Voltage 116 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F2H	01267	143	53	30	Phase B-N / Phase B-C Voltage 117 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F3H	01268	143	54	30	Phase B-N / Phase B-C Voltage 118 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F4H	01269	143	55	30	Phase B-N / Phase B-C Voltage 119 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F5H	01270	143	56	30	Phase B-N / Phase B-C Voltage 120 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F6H	01271	143	57	30	Phase B-N / Phase B-C Voltage 121 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F7H	01272	143	58	30	Phase B-N / Phase B-C Voltage 122 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F8H	01273	143	59	30	Phase B-N / Phase B-C Voltage 123 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04F9H	01274	143	60	30	Phase B-N / Phase B-C Voltage 124 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FAH	01275	143	61	30	Phase B-N / Phase B-C Voltage 125 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FBH	01276	143	62	30	Phase B-N / Phase B-C Voltage 126 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FCH	01277	143	63	30	Phase B-N / Phase B-C Voltage 127 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FDH	01278	144	0	30	Phase C-N / Phase C-A Voltage 0 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FEH	01279	144	1	30	Phase C-N / Phase C-A Voltage 1 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
04FFH	01280	144	2	30	Phase C-N / Phase C-A Voltage 2 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0500H	01281	144	3	30	Phase C-N / Phase C-A Voltage 3 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0501H	01282	144	4	30	Phase C-N / Phase C-A Voltage 4 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0502H	01283	144	5	30	Phase C-N / Phase C-A Voltage 5 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0503H	01284	144	6	30	Phase C-N / Phase C-A Voltage 6 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0504H	01285	144	7	30	Phase C-N / Phase C-A Voltage 7 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0505H	01286	145	0	30	Phase C-N / Phase C-A Voltage 8 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0506H	01287	145	1	30	Phase C-N / Phase C-A Voltage 9 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0507H	01288	145	2	30	Phase C-N / Phase C-A Voltage 10 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0508H	01289	145	3	30	Phase C-N / Phase C-A Voltage 11 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0509H	01290	145	4	30	Phase C-N / Phase C-A Voltage 12 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
050AH	01291	145	5	30	Phase C-N / Phase C-A Voltage 13 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
050BH	01292	145	6	30	Phase C-N / Phase C-A Voltage 14 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
050CH	01293	145	7	30	Phase C-N / Phase C-A Voltage 15 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
050DH	01294	146	0	30	Phase C-N / Phase C-A Voltage 16 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
050EH	01295	146	1	30	Phase C-N / Phase C-A Voltage 17 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
050FH	01296	146	2	30	Phase C-N / Phase C-A Voltage 18 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0510H	01297	146	3	30	Phase C-N / Phase C-A Voltage 19 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0511H	01298	146	4	30	Phase C-N / Phase C-A Voltage 20 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0512H	01299	146	5	30	Phase C-N / Phase C-A Voltage 21 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0513H	01300	146	6	30	Phase C-N / Phase C-A Voltage 22 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0514H	01301	146	7	30	Phase C-N / Phase C-A Voltage 23 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0515H	01302	146	8	30	Phase C-N / Phase C-A Voltage 24 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0516H	01303	146	9	30	Phase C-N / Phase C-A Voltage 25 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0517H	01304	146	10	30	Phase C-N / Phase C-A Voltage 26 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0518H	01305	146	11	30	Phase C-N / Phase C-A Voltage 27 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0519H	01306	146	12	30	Phase C-N / Phase C-A Voltage 28 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
051AH	01307	146	13	30	Phase C-N / Phase C-A Voltage 29 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
051BH	01308	146	14	30	Phase C-N / Phase C-A Voltage 30 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
051CH	01309	146	15	30	Phase C-N / Phase C-A Voltage 31 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
051DH	01310	147	0	30	Phase C-N / Phase C-A Voltage 32 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
051EH	01311	147	1	30	Phase C-N / Phase C-A Voltage 33 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
051FH	01312	147	2	30	Phase C-N / Phase C-A Voltage 34 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0520H	01313	147	3	30	Phase C-N / Phase C-A Voltage 35 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0521H	01314	147	4	30	Phase C-N / Phase C-A Voltage 36 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0522H	01315	147	5	30	Phase C-N / Phase C-A Voltage 37 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0523H	01316	147	6	30	Phase C-N / Phase C-A Voltage 38 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0524H	01317	147	7	30	Phase C-N / Phase C-A Voltage 39 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0525H	01318	147	8	30	Phase C-N / Phase C-A Voltage 40 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0526H	01319	147	9	30	Phase C-N / Phase C-A Voltage 41 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0527H	01320	147	10	30	Phase C-N / Phase C-A Voltage 42 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0528H	01321	147	11	30	Phase C-N / Phase C-A Voltage 43 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0529H	01322	147	12	30	Phase C-N / Phase C-A Voltage 44 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
052AH	01323	147	13	30	Phase C-N / Phase C-A Voltage 45 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
052BH	01324	147	14	30	Phase C-N / Phase C-A Voltage 46 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
052CH	01325	147	15	30	Phase C-N / Phase C-A Voltage 47 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
052DH	01326	147	16	30	Phase C-N / Phase C-A Voltage 48 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
052EH	01327	147	17	30	Phase C-N / Phase C-A Voltage 49 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
052FH	01328	147	18	30	Phase C-N / Phase C-A Voltage 50 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0530H	01329	147	19	30	Phase C-N / Phase C-A Voltage 51 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0531H	01330	147	20	30	Phase C-N / Phase C-A Voltage 52 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0532H	01331	147	21	30	Phase C-N / Phase C-A Voltage 53 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0533H	01332	147	22	30	Phase C-N / Phase C-A Voltage 54 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0534H	01333	147	23	30	Phase C-N / Phase C-A Voltage 55 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0535H	01334	147	24	30	Phase C-N / Phase C-A Voltage 56 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0536H	01335	147	25	30	Phase C-N / Phase C-A Voltage 57 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0537H	01336	147	26	30	Phase C-N / Phase C-A Voltage 58 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0538H	01337	147	27	30	Phase C-N / Phase C-A Voltage 59 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0539H	01338	147	28	30	Phase C-N / Phase C-A Voltage 60 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
053AH	01339	147	29	30	Phase C-N / Phase C-A Voltage 61 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
053BH	01340	147	30	30	Phase C-N / Phase C-A Voltage 62 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
053CH	01341	147	31	30	Phase C-N / Phase C-A Voltage 63 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
053DH	01342	148	0	30	Phase C-N / Phase C-A Voltage 64 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
053EH	01343	148	1	30	Phase C-N / Phase C-A Voltage 65 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
053FH	01344	148	2	30	Phase C-N / Phase C-A Voltage 66 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0540H	01345	148	3	30	Phase C-N / Phase C-A Voltage 67 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0541H	01346	148	4	30	Phase C-N / Phase C-A Voltage 68 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0542H	01347	148	5	30	Phase C-N / Phase C-A Voltage 69 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0543H	01348	148	6	30	Phase C-N / Phase C-A Voltage 70 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0544H	01349	148	7	30	Phase C-N / Phase C-A Voltage 71 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0545H	01350	148	8	30	Phase C-N / Phase C-A Voltage 72 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0546H	01351	148	9	30	Phase C-N / Phase C-A Voltage 73 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0547H	01352	148	10	30	Phase C-N / Phase C-A Voltage 74 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0548H	01353	148	11	30	Phase C-N / Phase C-A Voltage 75 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0549H	01354	148	12	30	Phase C-N / Phase C-A Voltage 76 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
054AH	01355	148	13	30	Phase C-N / Phase C-A Voltage 77 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
054BH	01356	148	14	30	Phase C-N / Phase C-A Voltage 78 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
054CH	01357	148	15	30	Phase C-N / Phase C-A Voltage 79 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
054DH	01358	148	16	30	Phase C-N / Phase C-A Voltage 80 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
054EH	01359	148	17	30	Phase C-N / Phase C-A Voltage 81 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
054FH	01360	148	18	30	Phase C-N / Phase C-A Voltage 82 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0550H	01361	148	19	30	Phase C-N / Phase C-A Voltage 83 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0551H	01362	148	20	30	Phase C-N / Phase C-A Voltage 84 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0552H	01363	148	21	30	Phase C-N / Phase C-A Voltage 85 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0553H	01364	148	22	30	Phase C-N / Phase C-A Voltage 86 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0554H	01365	148	23	30	Phase C-N / Phase C-A Voltage 87 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0555H	01366	148	24	30	Phase C-N / Phase C-A Voltage 88 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0556H	01367	148	25	30	Phase C-N / Phase C-A Voltage 89 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0557H	01368	148	26	30	Phase C-N / Phase C-A Voltage 90 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0558H	01369	148	27	30	Phase C-N / Phase C-A Voltage 91 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0559H	01370	148	28	30	Phase C-N / Phase C-A Voltage 92 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
055AH	01371	148	29	30	Phase C-N / Phase C-A Voltage 93 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
055BH	01372	148	30	30	Phase C-N / Phase C-A Voltage 94 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
055CH	01373	148	31	30	Phase C-N / Phase C-A Voltage 95 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
055DH	01374	148	32	30	Phase C-N / Phase C-A Voltage 96 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
055EH	01375	148	33	30	Phase C-N / Phase C-A Voltage 97 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
055FH	01376	148	34	30	Phase C-N / Phase C-A Voltage 98 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0560H	01377	148	35	30	Phase C-N / Phase C-A Voltage 99 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0561H	01378	148	36	30	Phase C-N / Phase C-A Voltage 100 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0562H	01379	148	37	30	Phase C-N / Phase C-A Voltage 101 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0563H	01380	148	38	30	Phase C-N / Phase C-A Voltage 102 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0564H	01381	148	39	30	Phase C-N / Phase C-A Voltage 103 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0565H	01382	148	40	30	Phase C-N / Phase C-A Voltage 104 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0566H	01383	148	41	30	Phase C-N / Phase C-A Voltage 105 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0567H	01384	148	42	30	Phase C-N / Phase C-A Voltage 106 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0568H	01385	148	43	30	Phase C-N / Phase C-A Voltage 107 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0569H	01386	148	44	30	Phase C-N / Phase C-A Voltage 108 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
056AH	01387	148	45	30	Phase C-N / Phase C-A Voltage 109 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
056BH	01388	148	46	30	Phase C-N / Phase C-A Voltage 110 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
056CH	01389	148	47	30	Phase C-N / Phase C-A Voltage 111 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
056DH	01390	148	48	30	Phase C-N / Phase C-A Voltage 112 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
056EH	01391	148	49	30	Phase C-N / Phase C-A Voltage 113 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
056FH	01392	148	50	30	Phase C-N / Phase C-A Voltage 114 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0570H	01393	148	51	30	Phase C-N / Phase C-A Voltage 115 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0571H	01394	148	52	30	Phase C-N / Phase C-A Voltage 116 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0572H	01395	148	53	30	Phase C-N / Phase C-A Voltage 117 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0573H	01396	148	54	30	Phase C-N / Phase C-A Voltage 118 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0574H	01397	148	55	30	Phase C-N / Phase C-A Voltage 119 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0575H	01398	148	56	30	Phase C-N / Phase C-A Voltage 120 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0576H	01399	148	57	30	Phase C-N / Phase C-A Voltage 121 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0577H	01400	148	58	30	Phase C-N / Phase C-A Voltage 122 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0578H	01401	148	59	30	Phase C-N / Phase C-A Voltage 123 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0579H	01402	148	60	30	Phase C-N / Phase C-A Voltage 124 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
057AH	01403	148	61	30	Phase C-N / Phase C-A Voltage 125 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
057BH	01404	148	62	30	Phase C-N / Phase C-A Voltage 126 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
057CH	01405	148	63	30	Phase C-N / Phase C-A Voltage 127 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
057DH	01406	149	0	30	Phase A Current 0 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
057EH	01407	149	1	30	Phase A Current 1 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
057FH	01408	149	2	30	Phase A Current 2 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0580H	01409	149	3	30	Phase A Current 3 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0581H	01410	149	4	30	Phase A Current 4 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0582H	01411	149	5	30	Phase A Current 5 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0583H	01412	149	6	30	Phase A Current 6 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0584H	01413	149	7	30	Phase A Current 7 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0585H	01414	150	0	30	Phase A Current 8 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0586H	01415	150	1	30	Phase A Current 9 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0587H	01416	150	2	30	Phase A Current 10 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0588H	01417	150	3	30	Phase A Current 11 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0589H	01418	150	4	30	Phase A Current 12 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
058AH	01419	150	5	30	Phase A Current 13 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
058BH	01420	150	6	30	Phase A Current 14 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
058CH	01421	150	7	30	Phase A Current 15 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
058DH	01422	151	0	30	Phase A Current 16 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
058EH	01423	151	1	30	Phase A Current 17 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
058FH	01424	151	2	30	Phase A Current 18 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0590H	01425	151	3	30	Phase A Current 19 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0591H	01426	151	4	30	Phase A Current 20 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0592H	01427	151	5	30	Phase A Current 21 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0593H	01428	151	6	30	Phase A Current 22 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0594H	01429	151	7	30	Phase A Current 23 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0595H	01430	151	8	30	Phase A Current 24 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0596H	01431	151	9	30	Phase A Current 25 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0597H	01432	151	10	30	Phase A Current 26 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0598H	01433	151	11	30	Phase A Current 27 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0599H	01434	151	12	30	Phase A Current 28 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
059AH	01435	151	13	30	Phase A Current 29 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
059BH	01436	151	14	30	Phase A Current 30 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
059CH	01437	151	15	30	Phase A Current 31 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
059DH	01438	152	0	30	Phase A Current 32 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
059EH	01439	152	1	30	Phase A Current 33 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
059FH	01440	152	2	30	Phase A Current 34 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A0H	01441	152	3	30	Phase A Current 35 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A1H	01442	152	4	30	Phase A Current 36 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A2H	01443	152	5	30	Phase A Current 37 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A3H	01444	152	6	30	Phase A Current 38 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A4H	01445	152	7	30	Phase A Current 39 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A5H	01446	152	8	30	Phase A Current 40 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A6H	01447	152	9	30	Phase A Current 41 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A7H	01448	152	10	30	Phase A Current 42 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A8H	01449	152	11	30	Phase A Current 43 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05A9H	01450	152	12	30	Phase A Current 44 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05AAH	01451	152	13	30	Phase A Current 45 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05ABH	01452	152	14	30	Phase A Current 46 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05ACH	01453	152	15	30	Phase A Current 47 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05ADH	01454	152	16	30	Phase A Current 48 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05AEH	01455	152	17	30	Phase A Current 49 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05AFH	01456	152	18	30	Phase A Current 50 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B0H	01457	152	19	30	Phase A Current 51 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B1H	01458	152	20	30	Phase A Current 52 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B2H	01459	152	21	30	Phase A Current 53 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B3H	01460	152	22	30	Phase A Current 54 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B4H	01461	152	23	30	Phase A Current 55 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B5H	01462	152	24	30	Phase A Current 56 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B6H	01463	152	25	30	Phase A Current 57 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B7H	01464	152	26	30	Phase A Current 58 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B8H	01465	152	27	30	Phase A Current 59 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05B9H	01466	152	28	30	Phase A Current 60 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05BAH	01467	152	29	30	Phase A Current 61 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05BBH	01468	152	30	30	Phase A Current 62 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05BCH	01469	152	31	30	Phase A Current 63 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05BDH	01470	153	0	30	Phase A Current 64 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05BEH	01471	153	1	30	Phase A Current 65 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05BFH	01472	153	2	30	Phase A Current 66 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05COH	01473	153	3	30	Phase A Current 67 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C1H	01474	153	4	30	Phase A Current 68 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C2H	01475	153	5	30	Phase A Current 69 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C3H	01476	153	6	30	Phase A Current 70 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C4H	01477	153	7	30	Phase A Current 71 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C5H	01478	153	8	30	Phase A Current 72 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C6H	01479	153	9	30	Phase A Current 73 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C7H	01480	153	10	30	Phase A Current 74 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C8H	01481	153	11	30	Phase A Current 75 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05C9H	01482	153	12	30	Phase A Current 76 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05CAH	01483	153	13	30	Phase A Current 77 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05CBH	01484	153	14	30	Phase A Current 78 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05CCH	01485	153	15	30	Phase A Current 79 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05CDH	01486	153	16	30	Phase A Current 80 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05CEH	01487	153	17	30	Phase A Current 81 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
05CFH	01488	153	18	30	Phase A Current 82 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D0H	01489	153	19	30	Phase A Current 83 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D1H	01490	153	20	30	Phase A Current 84 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D2H	01491	153	21	30	Phase A Current 85 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D3H	01492	153	22	30	Phase A Current 86 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D4H	01493	153	23	30	Phase A Current 87 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D5H	01494	153	24	30	Phase A Current 88 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D6H	01495	153	25	30	Phase A Current 89 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D7H	01496	153	26	30	Phase A Current 90 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D8H	01497	153	27	30	Phase A Current 91 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05D9H	01498	153	28	30	Phase A Current 92 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05DAH	01499	153	29	30	Phase A Current 93 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05DBH	01500	153	30	30	Phase A Current 94 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05DCH	01501	153	31	30	Phase A Current 95 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05DDH	01502	153	32	30	Phase A Current 96 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05DEH	01503	153	33	30	Phase A Current 97 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05DFH	01504	153	34	30	Phase A Current 98 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E0H	01505	153	35	30	Phase A Current 99 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E1H	01506	153	36	30	Phase A Current 100 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E2H	01507	153	37	30	Phase A Current 101 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E3H	01508	153	38	30	Phase A Current 102 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E4H	01509	153	39	30	Phase A Current 103 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E5H	01510	153	40	30	Phase A Current 104 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E6H	01511	153	41	30	Phase A Current 105 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E7H	01512	153	42	30	Phase A Current 106 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E8H	01513	153	43	30	Phase A Current 107 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05E9H	01514	153	44	30	Phase A Current 108 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05EAH	01515	153	45	30	Phase A Current 109 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05EBH	01516	153	46	30	Phase A Current 110 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05ECH	01517	153	47	30	Phase A Current 111 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05EDH	01518	153	48	30	Phase A Current 112 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05EEH	01519	153	49	30	Phase A Current 113 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05EFH	01520	153	50	30	Phase A Current 114 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F0H	01521	153	51	30	Phase A Current 115 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F1H	01522	153	52	30	Phase A Current 116 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F2H	01523	153	53	30	Phase A Current 117 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F3H	01524	153	54	30	Phase A Current 118 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F4H	01525	153	55	30	Phase A Current 119 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F5H	01526	153	56	30	Phase A Current 120 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F6H	01527	153	57	30	Phase A Current 121 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F7H	01528	153	58	30	Phase A Current 122 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F8H	01529	153	59	30	Phase A Current 123 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05F9H	01530	153	60	30	Phase A Current 124 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05FAH	01531	153	61	30	Phase A Current 125 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05FBH	01532	153	62	30	Phase A Current 126 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05FCH	01533	153	63	30	Phase A Current 127 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05FDH	01534	154	0	30	Phase B Current 0 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05FEH	01535	154	1	30	Phase B Current 1 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
05FFH	01536	154	2	30	Phase B Current 2 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0600H	01537	154	3	30	Phase B Current 3 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0601H	01538	154	4	30	Phase B Current 4 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0602H	01539	154	5	30	Phase B Current 5 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0603H	01540	154	6	30	Phase B Current 6 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0604H	01541	154	7	30	Phase B Current 7 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0605H	01542	155	0	30	Phase B Current 8 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0606H	01543	155	1	30	Phase B Current 9 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0607H	01544	155	2	30	Phase B Current 10 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0608H	01545	155	3	30	Phase B Current 11 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0609H	01546	155	4	30	Phase B Current 12 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
060AH	01547	155	5	30	Phase B Current 13 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
060BH	01548	155	6	30	Phase B Current 14 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
060CH	01549	155	7	30	Phase B Current 15 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
060DH	01550	156	0	30	Phase B Current 16 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
060EH	01551	156	1	30	Phase B Current 17 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
060FH	01552	156	2	30	Phase B Current 18 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0610H	01553	156	3	30	Phase B Current 19 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0611H	01554	156	4	30	Phase B Current 20 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0612H	01555	156	5	30	Phase B Current 21 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0613H	01556	156	6	30	Phase B Current 22 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0614H	01557	156	7	30	Phase B Current 23 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0615H	01558	156	8	30	Phase B Current 24 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0616H	01559	156	9	30	Phase B Current 25 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0617H	01560	156	10	30	Phase B Current 26 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0618H	01561	156	11	30	Phase B Current 27 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0619H	01562	156	12	30	Phase B Current 28 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
061AH	01563	156	13	30	Phase B Current 29 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
061BH	01564	156	14	30	Phase B Current 30 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
061CH	01565	156	15	30	Phase B Current 31 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
061DH	01566	157	0	30	Phase B Current 32 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
061EH	01567	157	1	30	Phase B Current 33 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
061FH	01568	157	2	30	Phase B Current 34 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0620H	01569	157	3	30	Phase B Current 35 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0621H	01570	157	4	30	Phase B Current 36 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0622H	01571	157	5	30	Phase B Current 37 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0623H	01572	157	6	30	Phase B Current 38 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0624H	01573	157	7	30	Phase B Current 39 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0625H	01574	157	8	30	Phase B Current 40 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0626H	01575	157	9	30	Phase B Current 41 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0627H	01576	157	10	30	Phase B Current 42 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0628H	01577	157	11	30	Phase B Current 43 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0629H	01578	157	12	30	Phase B Current 44 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
062AH	01579	157	13	30	Phase B Current 45 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
062BH	01580	157	14	30	Phase B Current 46 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
062CH	01581	157	15	30	Phase B Current 47 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
062DH	01582	157	16	30	Phase B Current 48 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
062EH	01583	157	17	30	Phase B Current 49 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
062FH	01584	157	18	30	Phase B Current 50 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0630H	01585	157	19	30	Phase B Current 51 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0631H	01586	157	20	30	Phase B Current 52 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0632H	01587	157	21	30	Phase B Current 53 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0633H	01588	157	22	30	Phase B Current 54 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0634H	01589	157	23	30	Phase B Current 55 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0635H	01590	157	24	30	Phase B Current 56 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0636H	01591	157	25	30	Phase B Current 57 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0637H	01592	157	26	30	Phase B Current 58 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0638H	01593	157	27	30	Phase B Current 59 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0639H	01594	157	28	30	Phase B Current 60 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
063AH	01595	157	29	30	Phase B Current 61 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
063BH	01596	157	30	30	Phase B Current 62 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
063CH	01597	157	31	30	Phase B Current 63 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
063DH	01598	158	0	30	Phase B Current 64 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
063EH	01599	158	1	30	Phase B Current 65 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
063FH	01600	158	2	30	Phase B Current 66 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0640H	01601	158	3	30	Phase B Current 67 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0641H	01602	158	4	30	Phase B Current 68 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0642H	01603	158	5	30	Phase B Current 69 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0643H	01604	158	6	30	Phase B Current 70 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0644H	01605	158	7	30	Phase B Current 71 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0645H	01606	158	8	30	Phase B Current 72 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0646H	01607	158	9	30	Phase B Current 73 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0647H	01608	158	10	30	Phase B Current 74 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0648H	01609	158	11	30	Phase B Current 75 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0649H	01610	158	12	30	Phase B Current 76 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
064AH	01611	158	13	30	Phase B Current 77 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
064BH	01612	158	14	30	Phase B Current 78 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
064CH	01613	158	15	30	Phase B Current 79 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
064DH	01614	158	16	30	Phase B Current 80 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
064EH	01615	158	17	30	Phase B Current 81 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
064FH	01616	158	18	30	Phase B Current 82 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0650H	01617	158	19	30	Phase B Current 83 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0651H	01618	158	20	30	Phase B Current 84 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0652H	01619	158	21	30	Phase B Current 85 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0653H	01620	158	22	30	Phase B Current 86 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0654H	01621	158	23	30	Phase B Current 87 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0655H	01622	158	24	30	Phase B Current 88 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0656H	01623	158	25	30	Phase B Current 89 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0657H	01624	158	26	30	Phase B Current 90 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0658H	01625	158	27	30	Phase B Current 91 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0659H	01626	158	28	30	Phase B Current 92 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
065AH	01627	158	29	30	Phase B Current 93 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
065BH	01628	158	30	30	Phase B Current 94 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
065CH	01629	158	31	30	Phase B Current 95 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
065DH	01630	158	32	30	Phase B Current 96 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
065EH	01631	158	33	30	Phase B Current 97 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
065FH	01632	158	34	30	Phase B Current 98 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0660H	01633	158	35	30	Phase B Current 99 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0661H	01634	158	36	30	Phase B Current 100 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0662H	01635	158	37	30	Phase B Current 101 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0663H	01636	158	38	30	Phase B Current 102 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0664H	01637	158	39	30	Phase B Current 103 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0665H	01638	158	40	30	Phase B Current 104 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0666H	01639	158	41	30	Phase B Current 105 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0667H	01640	158	42	30	Phase B Current 106 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0668H	01641	158	43	30	Phase B Current 107 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0669H	01642	158	44	30	Phase B Current 108 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
066AH	01643	158	45	30	Phase B Current 109 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
066BH	01644	158	46	30	Phase B Current 110 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
066CH	01645	158	47	30	Phase B Current 111 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
066DH	01646	158	48	30	Phase B Current 112 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
066EH	01647	158	49	30	Phase B Current 113 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
066FH	01648	158	50	30	Phase B Current 114 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0670H	01649	158	51	30	Phase B Current 115 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0671H	01650	158	52	30	Phase B Current 116 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0672H	01651	158	53	30	Phase B Current 117 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0673H	01652	158	54	30	Phase B Current 118 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0674H	01653	158	55	30	Phase B Current 119 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0675H	01654	158	56	30	Phase B Current 120 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0676H	01655	158	57	30	Phase B Current 121 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0677H	01656	158	58	30	Phase B Current 122 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0678H	01657	158	59	30	Phase B Current 123 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0679H	01658	158	60	30	Phase B Current 124 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
067AH	01659	158	61	30	Phase B Current 125 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
067BH	01660	158	62	30	Phase B Current 126 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
067CH	01661	158	63	30	Phase B Current 127 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
067DH	01662	159	0	30	Phase C Current 0 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
067EH	01663	159	1	30	Phase C Current 1 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
067FH	01664	159	2	30	Phase C Current 2 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0680H	01665	159	3	30	Phase C Current 3 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0681H	01666	159	4	30	Phase C Current 4 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0682H	01667	159	5	30	Phase C Current 5 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0683H	01668	159	6	30	Phase C Current 6 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0684H	01669	159	7	30	Phase C Current 7 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0685H	01670	160	0	30	Phase C Current 8 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0686H	01671	160	1	30	Phase C Current 9 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0687H	01672	160	2	30	Phase C Current 10 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0688H	01673	160	3	30	Phase C Current 11 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0689H	01674	160	4	30	Phase C Current 12 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
068AH	01675	160	5	30	Phase C Current 13 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
068BH	01676	160	6	30	Phase C Current 14 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
068CH	01677	160	7	30	Phase C Current 15 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
068DH	01678	161	0	30	Phase C Current 16 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
068EH	01679	161	1	30	Phase C Current 17 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
068FH	01680	161	2	30	Phase C Current 18 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0690H	01681	161	3	30	Phase C Current 19 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0691H	01682	161	4	30	Phase C Current 20 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0692H	01683	161	5	30	Phase C Current 21 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0693H	01684	161	6	30	Phase C Current 22 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0694H	01685	161	7	30	Phase C Current 23 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0695H	01686	161	8	30	Phase C Current 24 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0696H	01687	161	9	30	Phase C Current 25 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0697H	01688	161	10	30	Phase C Current 26 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0698H	01689	161	11	30	Phase C Current 27 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
0699H	01690	161	12	30	Phase C Current 28 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
069AH	01691	161	13	30	Phase C Current 29 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
069BH	01692	161	14	30	Phase C Current 30 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
069CH	01693	161	15	30	Phase C Current 31 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
069DH	01694	162	0	30	Phase C Current 32 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
069EH	01695	162	1	30	Phase C Current 33 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
069FH	01696	162	2	30	Phase C Current 34 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A0H	01697	162	3	30	Phase C Current 35 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A1H	01698	162	4	30	Phase C Current 36 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A2H	01699	162	5	30	Phase C Current 37 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A3H	01700	162	6	30	Phase C Current 38 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A4H	01701	162	7	30	Phase C Current 39 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A5H	01702	162	8	30	Phase C Current 40 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A6H	01703	162	9	30	Phase C Current 41 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A7H	01704	162	10	30	Phase C Current 42 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A8H	01705	162	11	30	Phase C Current 43 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06A9H	01706	162	12	30	Phase C Current 44 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06AAH	01707	162	13	30	Phase C Current 45 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06ABH	01708	162	14	30	Phase C Current 46 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06ACH	01709	162	15	30	Phase C Current 47 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06ADH	01710	162	16	30	Phase C Current 48 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06AEH	01711	162	17	30	Phase C Current 49 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
06AFH	01712	162	18	30	Phase C Current 50 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BOH	01713	162	19	30	Phase C Current 51 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BIH	01714	162	20	30	Phase C Current 52 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B2H	01715	162	21	30	Phase C Current 53 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B3H	01716	162	22	30	Phase C Current 54 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B4H	01717	162	23	30	Phase C Current 55 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B5H	01718	162	24	30	Phase C Current 56 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B6H	01719	162	25	30	Phase C Current 57 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B7H	01720	162	26	30	Phase C Current 58 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B8H	01721	162	27	30	Phase C Current 59 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06B9H	01722	162	28	30	Phase C Current 60 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BAH	01723	162	29	30	Phase C Current 61 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BBH	01724	162	30	30	Phase C Current 62 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BCH	01725	162	31	30	Phase C Current 63 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BDH	01726	163	0	30	Phase C Current 64 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BEH	01727	163	1	30	Phase C Current 65 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06BFH	01728	163	2	30	Phase C Current 66 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C0H	01729	163	3	30	Phase C Current 67 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C1H	01730	163	4	30	Phase C Current 68 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C2H	01731	163	5	30	Phase C Current 69 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C3H	01732	163	6	30	Phase C Current 70 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C4H	01733	163	7	30	Phase C Current 71 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C5H	01734	163	8	30	Phase C Current 72 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C6H	01735	163	9	30	Phase C Current 73 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C7H	01736	163	10	30	Phase C Current 74 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C8H	01737	163	11	30	Phase C Current 75 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06C9H	01738	163	12	30	Phase C Current 76 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06CAH	01739	163	13	30	Phase C Current 77 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06CBH	01740	163	14	30	Phase C Current 78 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06CCH	01741	163	15	30	Phase C Current 79 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06CDH	01742	163	16	30	Phase C Current 80 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06CEH	01743	163	17	30	Phase C Current 81 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06CFH	01744	163	18	30	Phase C Current 82 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D0H	01745	163	19	30	Phase C Current 83 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D1H	01746	163	20	30	Phase C Current 84 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D2H	01747	163	21	30	Phase C Current 85 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D3H	01748	163	22	30	Phase C Current 86 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D4H	01749	163	23	30	Phase C Current 87 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D5H	01750	163	24	30	Phase C Current 88 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D6H	01751	163	25	30	Phase C Current 89 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D7H	01752	163	26	30	Phase C Current 90 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D8H	01753	163	27	30	Phase C Current 91 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06D9H	01754	163	28	30	Phase C Current 92 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06DAH	01755	163	29	30	Phase C Current 93 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06DBH	01756	163	30	30	Phase C Current 94 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06DCH	01757	163	31	30	Phase C Current 95 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06DDH	01758	163	32	30	Phase C Current 96 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06DEH	01759	163	33	30	Phase C Current 97 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06DFH	01760	163	34	30	Phase C Current 98 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E0H	01761	163	35	30	Phase C Current 99 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E1H	01762	163	36	30	Phase C Current 100 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E2H	01763	163	37	30	Phase C Current 101 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E3H	01764	163	38	30	Phase C Current 102 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E4H	01765	163	39	30	Phase C Current 103 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E5H	01766	163	40	30	Phase C Current 104 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E6H	01767	163	41	30	Phase C Current 105 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
06E7H	01768	163	42	30	Phase C Current 106 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E8H	01769	163	43	30	Phase C Current 107 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06E9H	01770	163	44	30	Phase C Current 108 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06EAH	01771	163	45	30	Phase C Current 109 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06EBH	01772	163	46	30	Phase C Current 110 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06ECH	01773	163	47	30	Phase C Current 111 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06EDH	01774	163	48	30	Phase C Current 112 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06EEH	01775	163	49	30	Phase C Current 113 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06EFH	01776	163	50	30	Phase C Current 114 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06FOH	01777	163	51	30	Phase C Current 115 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06FIH	01778	163	52	30	Phase C Current 116 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F2H	01779	163	53	30	Phase C Current 117 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F3H	01780	163	54	30	Phase C Current 118 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F4H	01781	163	55	30	Phase C Current 119 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F5H	01782	163	56	30	Phase C Current 120 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F6H	01783	163	57	30	Phase C Current 121 st Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F7H	01784	163	58	30	Phase C Current 122 nd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F8H	01785	163	59	30	Phase C Current 123 rd Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06F9H	01786	163	60	30	Phase C Current 124 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06FAH	01787	163	61	30	Phase C Current 125 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06FBH	01788	163	62	30	Phase C Current 126 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
06FCH	01789	163	63	30	Phase C Current 127 th Harmonic Magnitude	+327.67% / -327.68%	0.01%	F10	R	
Harmonic Phase Block										
06FDH	01790	164	0	30	Phase A-N / Phase A-B Voltage 0 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
06FEH	01791	164	1	30	Phase A-N / Phase A-B Voltage 1 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
06FFH	01792	164	2	30	Phase A-N / Phase A-B Voltage 2 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0700H	01793	164	3	30	Phase A-N / Phase A-B Voltage 3 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0701H	01794	164	4	30	Phase A-N / Phase A-B Voltage 4 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0702H	01795	164	5	30	Phase A-N / Phase A-B Voltage 5 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0703H	01796	164	6	30	Phase A-N / Phase A-B Voltage 6 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0704H	01797	164	7	30	Phase A-N / Phase A-B Voltage 7 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0705H	01798	165	0	30	Phase A-N / Phase A-B Voltage 8 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0706H	01799	165	1	30	Phase A-N / Phase A-B Voltage 9 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0707H	01800	165	2	30	Phase A-N / Phase A-B Voltage 10 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0708H	01801	165	3	30	Phase A-N / Phase A-B Voltage 11 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0709H	01802	165	4	30	Phase A-N / Phase A-B Voltage 12 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
070AH	01803	165	5	30	Phase A-N / Phase A-B Voltage 13 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
070BH	01804	165	6	30	Phase A-N / Phase A-B Voltage 14 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
070CH	01805	165	7	30	Phase A-N / Phase A-B Voltage 15 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
070DH	01806	166	0	30	Phase A-N / Phase A-B Voltage 16 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
070EH	01807	166	1	30	Phase A-N / Phase A-B Voltage 17 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
070FH	01808	166	2	30	Phase A-N / Phase A-B Voltage 18 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0710H	01809	166	3	30	Phase A-N / Phase A-B Voltage 19 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0711H	01810	166	4	30	Phase A-N / Phase A-B Voltage 20 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0712H	01811	166	5	30	Phase A-N / Phase A-B Voltage 21 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0713H	01812	166	6	30	Phase A-N / Phase A-B Voltage 22 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0714H	01813	166	7	30	Phase A-N / Phase A-B Voltage 23 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0715H	01814	166	8	30	Phase A-N / Phase A-B Voltage 24 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0716H	01815	166	9	30	Phase A-N / Phase A-B Voltage 25 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0717H	01816	166	10	30	Phase A-N / Phase A-B Voltage 26 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0718H	01817	166	11	30	Phase A-N / Phase A-B Voltage 27 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0719H	01818	166	12	30	Phase A-N / Phase A-B Voltage 28 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
071AH	01819	166	13	30	Phase A-N / Phase A-B Voltage 29 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
071BH	01820	166	14	30	Phase A-N / Phase A-B Voltage 30 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
071CH	01821	166	15	30	Phase A-N / Phase A-B Voltage 31 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
071DH	01822	167	0	30	Phase A-N / Phase A-B Voltage 32 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
071EH	01823	167	1	30	Phase A-N / Phase A-B Voltage 33 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
071FH	01824	167	2	30	Phase A-N / Phase A-B Voltage 34 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0720H	01825	167	3	30	Phase A-N / Phase A-B Voltage 35 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0721H	01826	167	4	30	Phase A-N / Phase A-B Voltage 36 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0722H	01827	167	5	30	Phase A-N / Phase A-B Voltage 37 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0723H	01828	167	6	30	Phase A-N / Phase A-B Voltage 38 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0724H	01829	167	7	30	Phase A-N / Phase A-B Voltage 39 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0725H	01830	167	8	30	Phase A-N / Phase A-B Voltage 40 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0726H	01831	167	9	30	Phase A-N / Phase A-B Voltage 41 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0727H	01832	167	10	30	Phase A-N / Phase A-B Voltage 42 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0728H	01833	167	11	30	Phase A-N / Phase A-B Voltage 43 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0729H	01834	167	12	30	Phase A-N / Phase A-B Voltage 44 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
072AH	01835	167	13	30	Phase A-N / Phase A-B Voltage 45 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
072BH	01836	167	14	30	Phase A-N / Phase A-B Voltage 46 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
072CH	01837	167	15	30	Phase A-N / Phase A-B Voltage 47 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
072DH	01838	167	16	30	Phase A-N / Phase A-B Voltage 48 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
072EH	01839	167	17	30	Phase A-N / Phase A-B Voltage 49 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
072FH	01840	167	18	30	Phase A-N / Phase A-B Voltage 50 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0730H	01841	167	19	30	Phase A-N / Phase A-B Voltage 51 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0731H	01842	167	20	30	Phase A-N / Phase A-B Voltage 52 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0732H	01843	167	21	30	Phase A-N / Phase A-B Voltage 53 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0733H	01844	167	22	30	Phase A-N / Phase A-B Voltage 54 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0734H	01845	167	23	30	Phase A-N / Phase A-B Voltage 55 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0735H	01846	167	24	30	Phase A-N / Phase A-B Voltage 56 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0736H	01847	167	25	30	Phase A-N / Phase A-B Voltage 57 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0737H	01848	167	26	30	Phase A-N / Phase A-B Voltage 58 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0738H	01849	167	27	30	Phase A-N / Phase A-B Voltage 59 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0739H	01850	167	28	30	Phase A-N / Phase A-B Voltage 60 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
073AH	01851	167	29	30	Phase A-N / Phase A-B Voltage 61 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
073BH	01852	167	30	30	Phase A-N / Phase A-B Voltage 62 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
073CH	01853	167	31	30	Phase A-N / Phase A-B Voltage 63 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
073DH	01854	168	0	30	Phase A-N / Phase A-B Voltage 64 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
073EH	01855	168	1	30	Phase A-N / Phase A-B Voltage 65 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
073FH	01856	168	2	30	Phase A-N / Phase A-B Voltage 66 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0740H	01857	168	3	30	Phase A-N / Phase A-B Voltage 67 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0741H	01858	168	4	30	Phase A-N / Phase A-B Voltage 68 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0742H	01859	168	5	30	Phase A-N / Phase A-B Voltage 69 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0743H	01860	168	6	30	Phase A-N / Phase A-B Voltage 70 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0744H	01861	168	7	30	Phase A-N / Phase A-B Voltage 71 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0745H	01862	168	8	30	Phase A-N / Phase A-B Voltage 72 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0746H	01863	168	9	30	Phase A-N / Phase A-B Voltage 73 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0747H	01864	168	10	30	Phase A-N / Phase A-B Voltage 74 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0748H	01865	168	11	30	Phase A-N / Phase A-B Voltage 75 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0749H	01866	168	12	30	Phase A-N / Phase A-B Voltage 76 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
074AH	01867	168	13	30	Phase A-N / Phase A-B Voltage 77 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
074BH	01868	168	14	30	Phase A-N / Phase A-B Voltage 78 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
074CH	01869	168	15	30	Phase A-N / Phase A-B Voltage 79 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
074DH	01870	168	16	30	Phase A-N / Phase A-B Voltage 80 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
074EH	01871	168	17	30	Phase A-N / Phase A-B Voltage 81 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
074FH	01872	168	18	30	Phase A-N / Phase A-B Voltage 82 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0750H	01873	168	19	30	Phase A-N / Phase A-B Voltage 83 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0751H	01874	168	20	30	Phase A-N / Phase A-B Voltage 84 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0752H	01875	168	21	30	Phase A-N / Phase A-B Voltage 85 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0753H	01876	168	22	30	Phase A-N / Phase A-B Voltage 86 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0754H	01877	168	23	30	Phase A-N / Phase A-B Voltage 87 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0755H	01878	168	24	30	Phase A-N / Phase A-B Voltage 88 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0756H	01879	168	25	30	Phase A-N / Phase A-B Voltage 89 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0757H	01880	168	26	30	Phase A-N / Phase A-B Voltage 90 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0758H	01881	168	27	30	Phase A-N / Phase A-B Voltage 91 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0759H	01882	168	28	30	Phase A-N / Phase A-B Voltage 92 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
075AH	01883	168	29	30	Phase A-N / Phase A-B Voltage 93 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
075BH	01884	168	30	30	Phase A-N / Phase A-B Voltage 94 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
075CH	01885	168	31	30	Phase A-N / Phase A-B Voltage 95 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
075DH	01886	168	32	30	Phase A-N / Phase A-B Voltage 96 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
075EH	01887	168	33	30	Phase A-N / Phase A-B Voltage 97 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
075FH	01888	168	34	30	Phase A-N / Phase A-B Voltage 98 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0760H	01889	168	35	30	Phase A-N / Phase A-B Voltage 99 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0761H	01890	168	36	30	Phase A-N / Phase A-B Voltage 100 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0762H	01891	168	37	30	Phase A-N / Phase A-B Voltage 101 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0763H	01892	168	38	30	Phase A-N / Phase A-B Voltage 102 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0764H	01893	168	39	30	Phase A-N / Phase A-B Voltage 103 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0765H	01894	168	40	30	Phase A-N / Phase A-B Voltage 104 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0766H	01895	168	41	30	Phase A-N / Phase A-B Voltage 105 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0767H	01896	168	42	30	Phase A-N / Phase A-B Voltage 106 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0768H	01897	168	43	30	Phase A-N / Phase A-B Voltage 107 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0769H	01898	168	44	30	Phase A-N / Phase A-B Voltage 108 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
076AH	01899	168	45	30	Phase A-N / Phase A-B Voltage 109 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
076BH	01900	168	46	30	Phase A-N / Phase A-B Voltage 110 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
076CH	01901	168	47	30	Phase A-N / Phase A-B Voltage 111 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
076DH	01902	168	48	30	Phase A-N / Phase A-B Voltage 112 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
076EH	01903	168	49	30	Phase A-N / Phase A-B Voltage 113 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
076FH	01904	168	50	30	Phase A-N / Phase A-B Voltage 114 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0770H	01905	168	51	30	Phase A-N / Phase A-B Voltage 115 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0771H	01906	168	52	30	Phase A-N / Phase A-B Voltage 116 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0772H	01907	168	53	30	Phase A-N / Phase A-B Voltage 117 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0773H	01908	168	54	30	Phase A-N / Phase A-B Voltage 118 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0774H	01909	168	55	30	Phase A-N / Phase A-B Voltage 119 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0775H	01910	168	56	30	Phase A-N / Phase A-B Voltage 120 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0776H	01911	168	57	30	Phase A-N / Phase A-B Voltage 121 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0777H	01912	168	58	30	Phase A-N / Phase A-B Voltage 122 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0778H	01913	168	59	30	Phase A-N / Phase A-B Voltage 123 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0779H	01914	168	60	30	Phase A-N / Phase A-B Voltage 124 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
077AH	01915	168	61	30	Phase A-N / Phase A-B Voltage 125 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
077BH	01916	168	62	30	Phase A-N / Phase A-B Voltage 126 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
077CH	01917	168	63	30	Phase A-N / Phase A-B Voltage 127 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
077DH	01918	169	0	30	Phase B-N / Phase B-C Voltage 0 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
077EH	01919	169	1	30	Phase B-N / Phase B-C Voltage 1 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
077FH	01920	169	2	30	Phase B-N / Phase B-C Voltage 2 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0780H	01921	169	3	30	Phase B-N / Phase B-C Voltage 3 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0781H	01922	169	4	30	Phase B-N / Phase B-C Voltage 4 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0782H	01923	169	5	30	Phase B-N / Phase B-C Voltage 5 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0783H	01924	169	6	30	Phase B-N / Phase B-C Voltage 6 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0784H	01925	169	7	30	Phase B-N / Phase B-C Voltage 7 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0785H	01926	170	0	30	Phase B-N / Phase B-C Voltage 8 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0786H	01927	170	1	30	Phase B-N / Phase B-C Voltage 9 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0787H	01928	170	2	30	Phase B-N / Phase B-C Voltage 10 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0788H	01929	170	3	30	Phase B-N / Phase B-C Voltage 11 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0789H	01930	170	4	30	Phase B-N / Phase B-C Voltage 12 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
078AH	01931	170	5	30	Phase B-N / Phase B-C Voltage 13 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
078BH	01932	170	6	30	Phase B-N / Phase B-C Voltage 14 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
078CH	01933	170	7	30	Phase B-N / Phase B-C Voltage 15 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
078DH	01934	171	0	30	Phase B-N / Phase B-C Voltage 16 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
078EH	01935	171	1	30	Phase B-N / Phase B-C Voltage 17 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
078FH	01936	171	2	30	Phase B-N / Phase B-C Voltage 18 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0790H	01937	171	3	30	Phase B-N / Phase B-C Voltage 19 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0791H	01938	171	4	30	Phase B-N / Phase B-C Voltage 20 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0792H	01939	171	5	30	Phase B-N / Phase B-C Voltage 21 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0793H	01940	171	6	30	Phase B-N / Phase B-C Voltage 22 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0794H	01941	171	7	30	Phase B-N / Phase B-C Voltage 23 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0795H	01942	171	8	30	Phase B-N / Phase B-C Voltage 24 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0796H	01943	171	9	30	Phase B-N / Phase B-C Voltage 25 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0797H	01944	171	10	30	Phase B-N / Phase B-C Voltage 26 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0798H	01945	171	11	30	Phase B-N / Phase B-C Voltage 27 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0799H	01946	171	12	30	Phase B-N / Phase B-C Voltage 28 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
079AH	01947	171	13	30	Phase B-N / Phase B-C Voltage 29 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
079BH	01948	171	14	30	Phase B-N / Phase B-C Voltage 30 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
079CH	01949	171	15	30	Phase B-N / Phase B-C Voltage 31 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
079DH	01950	172	0	30	Phase B-N / Phase B-C Voltage 32 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
079EH	01951	172	1	30	Phase B-N / Phase B-C Voltage 33 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
079FH	01952	172	2	30	Phase B-N / Phase B-C Voltage 34 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A0H	01953	172	3	30	Phase B-N / Phase B-C Voltage 35 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A1H	01954	172	4	30	Phase B-N / Phase B-C Voltage 36 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A2H	01955	172	5	30	Phase B-N / Phase B-C Voltage 37 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A3H	01956	172	6	30	Phase B-N / Phase B-C Voltage 38 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A4H	01957	172	7	30	Phase B-N / Phase B-C Voltage 39 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A5H	01958	172	8	30	Phase B-N / Phase B-C Voltage 40 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A6H	01959	172	9	30	Phase B-N / Phase B-C Voltage 41 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A7H	01960	172	10	30	Phase B-N / Phase B-C Voltage 42 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A8H	01961	172	11	30	Phase B-N / Phase B-C Voltage 43 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07A9H	01962	172	12	30	Phase B-N / Phase B-C Voltage 44 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07AAH	01963	172	13	30	Phase B-N / Phase B-C Voltage 45 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07ABH	01964	172	14	30	Phase B-N / Phase B-C Voltage 46 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07ACH	01965	172	15	30	Phase B-N / Phase B-C Voltage 47 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07ADH	01966	172	16	30	Phase B-N / Phase B-C Voltage 48 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07AEH	01967	172	17	30	Phase B-N / Phase B-C Voltage 49 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07AFH	01968	172	18	30	Phase B-N / Phase B-C Voltage 50 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B0H	01969	172	19	30	Phase B-N / Phase B-C Voltage 51 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B1H	01970	172	20	30	Phase B-N / Phase B-C Voltage 52 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B2H	01971	172	21	30	Phase B-N / Phase B-C Voltage 53 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B3H	01972	172	22	30	Phase B-N / Phase B-C Voltage 54 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B4H	01973	172	23	30	Phase B-N / Phase B-C Voltage 55 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B5H	01974	172	24	30	Phase B-N / Phase B-C Voltage 56 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B6H	01975	172	25	30	Phase B-N / Phase B-C Voltage 57 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B7H	01976	172	26	30	Phase B-N / Phase B-C Voltage 58 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B8H	01977	172	27	30	Phase B-N / Phase B-C Voltage 59 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07B9H	01978	172	28	30	Phase B-N / Phase B-C Voltage 60 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07BAH	01979	172	29	30	Phase B-N / Phase B-C Voltage 61 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07BBH	01980	172	30	30	Phase B-N / Phase B-C Voltage 62 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07BCH	01981	172	31	30	Phase B-N / Phase B-C Voltage 63 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07BDH	01982	173	0	30	Phase B-N / Phase B-C Voltage 64 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07BEH	01983	173	1	30	Phase B-N / Phase B-C Voltage 65 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07BFH	01984	173	2	30	Phase B-N / Phase B-C Voltage 66 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C0H	01985	173	3	30	Phase B-N / Phase B-C Voltage 67 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C1H	01986	173	4	30	Phase B-N / Phase B-C Voltage 68 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C2H	01987	173	5	30	Phase B-N / Phase B-C Voltage 69 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C3H	01988	173	6	30	Phase B-N / Phase B-C Voltage 70 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C4H	01989	173	7	30	Phase B-N / Phase B-C Voltage 71 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C5H	01990	173	8	30	Phase B-N / Phase B-C Voltage 72 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
07C6H	01991	173	9	30	Phase B-N / Phase B-C Voltage 73 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C7H	01992	173	10	30	Phase B-N / Phase B-C Voltage 74 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C8H	01993	173	11	30	Phase B-N / Phase B-C Voltage 75 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07C9H	01994	173	12	30	Phase B-N / Phase B-C Voltage 76 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07CAH	01995	173	13	30	Phase B-N / Phase B-C Voltage 77 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07CBH	01996	173	14	30	Phase B-N / Phase B-C Voltage 78 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07CCH	01997	173	15	30	Phase B-N / Phase B-C Voltage 79 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07CDH	01998	173	16	30	Phase B-N / Phase B-C Voltage 80 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07CEH	01999	173	17	30	Phase B-N / Phase B-C Voltage 81 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07CFH	02000	173	18	30	Phase B-N / Phase B-C Voltage 82 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D0H	02001	173	19	30	Phase B-N / Phase B-C Voltage 83 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D1H	02002	173	20	30	Phase B-N / Phase B-C Voltage 84 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D2H	02003	173	21	30	Phase B-N / Phase B-C Voltage 85 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D3H	02004	173	22	30	Phase B-N / Phase B-C Voltage 86 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D4H	02005	173	23	30	Phase B-N / Phase B-C Voltage 87 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D5H	02006	173	24	30	Phase B-N / Phase B-C Voltage 88 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D6H	02007	173	25	30	Phase B-N / Phase B-C Voltage 89 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D7H	02008	173	26	30	Phase B-N / Phase B-C Voltage 90 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D8H	02009	173	27	30	Phase B-N / Phase B-C Voltage 91 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07D9H	02010	173	28	30	Phase B-N / Phase B-C Voltage 92 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07DAH	02011	173	29	30	Phase B-N / Phase B-C Voltage 93 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07DBH	02012	173	30	30	Phase B-N / Phase B-C Voltage 94 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07DCH	02013	173	31	30	Phase B-N / Phase B-C Voltage 95 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07DDH	02014	173	32	30	Phase B-N / Phase B-C Voltage 96 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07DEH	02015	173	33	30	Phase B-N / Phase B-C Voltage 97 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07DFH	02016	173	34	30	Phase B-N / Phase B-C Voltage 98 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E0H	02017	173	35	30	Phase B-N / Phase B-C Voltage 99 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E1H	02018	173	36	30	Phase B-N / Phase B-C Voltage 100 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E2H	02019	173	37	30	Phase B-N / Phase B-C Voltage 101 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E3H	02020	173	38	30	Phase B-N / Phase B-C Voltage 102 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E4H	02021	173	39	30	Phase B-N / Phase B-C Voltage 103 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E5H	02022	173	40	30	Phase B-N / Phase B-C Voltage 104 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E6H	02023	173	41	30	Phase B-N / Phase B-C Voltage 105 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E7H	02024	173	42	30	Phase B-N / Phase B-C Voltage 106 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E8H	02025	173	43	30	Phase B-N / Phase B-C Voltage 107 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07E9H	02026	173	44	30	Phase B-N / Phase B-C Voltage 108 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07EAH	02027	173	45	30	Phase B-N / Phase B-C Voltage 109 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07EBH	02028	173	46	30	Phase B-N / Phase B-C Voltage 110 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07ECH	02029	173	47	30	Phase B-N / Phase B-C Voltage 111 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07EDH	02030	173	48	30	Phase B-N / Phase B-C Voltage 112 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07EEH	02031	173	49	30	Phase B-N / Phase B-C Voltage 113 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07EFH	02032	173	50	30	Phase B-N / Phase B-C Voltage 114 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F0H	02033	173	51	30	Phase B-N / Phase B-C Voltage 115 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F1H	02034	173	52	30	Phase B-N / Phase B-C Voltage 116 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F2H	02035	173	53	30	Phase B-N / Phase B-C Voltage 117 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F3H	02036	173	54	30	Phase B-N / Phase B-C Voltage 118 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F4H	02037	173	55	30	Phase B-N / Phase B-C Voltage 119 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F5H	02038	173	56	30	Phase B-N / Phase B-C Voltage 120 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F6H	02039	173	57	30	Phase B-N / Phase B-C Voltage 121 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F7H	02040	173	58	30	Phase B-N / Phase B-C Voltage 122 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F8H	02041	173	59	30	Phase B-N / Phase B-C Voltage 123 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07F9H	02042	173	60	30	Phase B-N / Phase B-C Voltage 124 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07FAH	02043	173	61	30	Phase B-N / Phase B-C Voltage 125 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07FBH	02044	173	62	30	Phase B-N / Phase B-C Voltage 126 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07FCH	02045	173	63	30	Phase B-N / Phase B-C Voltage 127 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07FDH	02046	174	0	30	Phase C-N / Phase C-A Voltage 0 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
07FEH	02047	174	1	30	Phase C-N / Phase C-A Voltage 1 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
07FFH	02048	174	2	30	Phase C-N / Phase C-A Voltage 2 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0800H	02049	174	3	30	Phase C-N / Phase C-A Voltage 3 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0801H	02050	174	4	30	Phase C-N / Phase C-A Voltage 4 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0802H	02051	174	5	30	Phase C-N / Phase C-A Voltage 5 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0803H	02052	174	6	30	Phase C-N / Phase C-A Voltage 6 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0804H	02053	174	7	30	Phase C-N / Phase C-A Voltage 7 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0805H	02054	175	0	30	Phase C-N / Phase C-A Voltage 8 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0806H	02055	175	1	30	Phase C-N / Phase C-A Voltage 9 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0807H	02056	175	2	30	Phase C-N / Phase C-A Voltage 10 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0808H	02057	175	3	30	Phase C-N / Phase C-A Voltage 11 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0809H	02058	175	4	30	Phase C-N / Phase C-A Voltage 12 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
080AH	02059	175	5	30	Phase C-N / Phase C-A Voltage 13 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
080BH	02060	175	6	30	Phase C-N / Phase C-A Voltage 14 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
080CH	02061	175	7	30	Phase C-N / Phase C-A Voltage 15 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
080DH	02062	176	0	30	Phase C-N / Phase C-A Voltage 16 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
080EH	02063	176	1	30	Phase C-N / Phase C-A Voltage 17 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
080FH	02064	176	2	30	Phase C-N / Phase C-A Voltage 18 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0810H	02065	176	3	30	Phase C-N / Phase C-A Voltage 19 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0811H	02066	176	4	30	Phase C-N / Phase C-A Voltage 20 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0812H	02067	176	5	30	Phase C-N / Phase C-A Voltage 21 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0813H	02068	176	6	30	Phase C-N / Phase C-A Voltage 22 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0814H	02069	176	7	30	Phase C-N / Phase C-A Voltage 23 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0815H	02070	176	8	30	Phase C-N / Phase C-A Voltage 24 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0816H	02071	176	9	30	Phase C-N / Phase C-A Voltage 25 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0817H	02072	176	10	30	Phase C-N / Phase C-A Voltage 26 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0818H	02073	176	11	30	Phase C-N / Phase C-A Voltage 27 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0819H	02074	176	12	30	Phase C-N / Phase C-A Voltage 28 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
081AH	02075	176	13	30	Phase C-N / Phase C-A Voltage 29 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
081BH	02076	176	14	30	Phase C-N / Phase C-A Voltage 30 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
081CH	02077	176	15	30	Phase C-N / Phase C-A Voltage 31 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
081DH	02078	177	0	30	Phase C-N / Phase C-A Voltage 32 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
081EH	02079	177	1	30	Phase C-N / Phase C-A Voltage 33 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
081FH	02080	177	2	30	Phase C-N / Phase C-A Voltage 34 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0820H	02081	177	3	30	Phase C-N / Phase C-A Voltage 35 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0821H	02082	177	4	30	Phase C-N / Phase C-A Voltage 36 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0822H	02083	177	5	30	Phase C-N / Phase C-A Voltage 37 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0823H	02084	177	6	30	Phase C-N / Phase C-A Voltage 38 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0824H	02085	177	7	30	Phase C-N / Phase C-A Voltage 39 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0825H	02086	177	8	30	Phase C-N / Phase C-A Voltage 40 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0826H	02087	177	9	30	Phase C-N / Phase C-A Voltage 41 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0827H	02088	177	10	30	Phase C-N / Phase C-A Voltage 42 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0828H	02089	177	11	30	Phase C-N / Phase C-A Voltage 43 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0829H	02090	177	12	30	Phase C-N / Phase C-A Voltage 44 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
082AH	02091	177	13	30	Phase C-N / Phase C-A Voltage 45 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
082BH	02092	177	14	30	Phase C-N / Phase C-A Voltage 46 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
082CH	02093	177	15	30	Phase C-N / Phase C-A Voltage 47 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
082DH	02094	177	16	30	Phase C-N / Phase C-A Voltage 48 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
082EH	02095	177	17	30	Phase C-N / Phase C-A Voltage 49 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
082FH	02096	177	18	30	Phase C-N / Phase C-A Voltage 50 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0830H	02097	177	19	30	Phase C-N / Phase C-A Voltage 51 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0831H	02098	177	20	30	Phase C-N / Phase C-A Voltage 52 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0832H	02099	177	21	30	Phase C-N / Phase C-A Voltage 53 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0833H	02100	177	22	30	Phase C-N / Phase C-A Voltage 54 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0834H	02101	177	23	30	Phase C-N / Phase C-A Voltage 55 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0835H	02102	177	24	30	Phase C-N / Phase C-A Voltage 56 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0836H	02103	177	25	30	Phase C-N / Phase C-A Voltage 57 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0837H	02104	177	26	30	Phase C-N / Phase C-A Voltage 58 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0838H	02105	177	27	30	Phase C-N / Phase C-A Voltage 59 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0839H	02106	177	28	30	Phase C-N / Phase C-A Voltage 60 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
083AH	02107	177	29	30	Phase C-N / Phase C-A Voltage 61 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
083BH	02108	177	30	30	Phase C-N / Phase C-A Voltage 62 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
083CH	02109	177	31	30	Phase C-N / Phase C-A Voltage 63 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
083DH	02110	178	0	30	Phase C-N / Phase C-A Voltage 64 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
083EH	02111	178	1	30	Phase C-N / Phase C-A Voltage 65 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
083FH	02112	178	2	30	Phase C-N / Phase C-A Voltage 66 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0840H	02113	178	3	30	Phase C-N / Phase C-A Voltage 67 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0841H	02114	178	4	30	Phase C-N / Phase C-A Voltage 68 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0842H	02115	178	5	30	Phase C-N / Phase C-A Voltage 69 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0843H	02116	178	6	30	Phase C-N / Phase C-A Voltage 70 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0844H	02117	178	7	30	Phase C-N / Phase C-A Voltage 71 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0845H	02118	178	8	30	Phase C-N / Phase C-A Voltage 72 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0846H	02119	178	9	30	Phase C-N / Phase C-A Voltage 73 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0847H	02120	178	10	30	Phase C-N / Phase C-A Voltage 74 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0848H	02121	178	11	30	Phase C-N / Phase C-A Voltage 75 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0849H	02122	178	12	30	Phase C-N / Phase C-A Voltage 76 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
084AH	02123	178	13	30	Phase C-N / Phase C-A Voltage 77 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
084BH	02124	178	14	30	Phase C-N / Phase C-A Voltage 78 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
084CH	02125	178	15	30	Phase C-N / Phase C-A Voltage 79 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
084DH	02126	178	16	30	Phase C-N / Phase C-A Voltage 80 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
084EH	02127	178	17	30	Phase C-N / Phase C-A Voltage 81 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
084FH	02128	178	18	30	Phase C-N / Phase C-A Voltage 82 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0850H	02129	178	19	30	Phase C-N / Phase C-A Voltage 83 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0851H	02130	178	20	30	Phase C-N / Phase C-A Voltage 84 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0852H	02131	178	21	30	Phase C-N / Phase C-A Voltage 85 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0853H	02132	178	22	30	Phase C-N / Phase C-A Voltage 86 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0854H	02133	178	23	30	Phase C-N / Phase C-A Voltage 87 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0855H	02134	178	24	30	Phase C-N / Phase C-A Voltage 88 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0856H	02135	178	25	30	Phase C-N / Phase C-A Voltage 89 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0857H	02136	178	26	30	Phase C-N / Phase C-A Voltage 90 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0858H	02137	178	27	30	Phase C-N / Phase C-A Voltage 91 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0859H	02138	178	28	30	Phase C-N / Phase C-A Voltage 92 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
085AH	02139	178	29	30	Phase C-N / Phase C-A Voltage 93 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
085BH	02140	178	30	30	Phase C-N / Phase C-A Voltage 94 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
085CH	02141	178	31	30	Phase C-N / Phase C-A Voltage 95 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
085DH	02142	178	32	30	Phase C-N / Phase C-A Voltage 96 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
085EH	02143	178	33	30	Phase C-N / Phase C-A Voltage 97 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
085FH	02144	178	34	30	Phase C-N / Phase C-A Voltage 98 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0860H	02145	178	35	30	Phase C-N / Phase C-A Voltage 99 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0861H	02146	178	36	30	Phase C-N / Phase C-A Voltage 100 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0862H	02147	178	37	30	Phase C-N / Phase C-A Voltage 101 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0863H	02148	178	38	30	Phase C-N / Phase C-A Voltage 102 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0864H	02149	178	39	30	Phase C-N / Phase C-A Voltage 103 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0865H	02150	178	40	30	Phase C-N / Phase C-A Voltage 104 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0866H	02151	178	41	30	Phase C-N / Phase C-A Voltage 105 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0867H	02152	178	42	30	Phase C-N / Phase C-A Voltage 106 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0868H	02153	178	43	30	Phase C-N / Phase C-A Voltage 107 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0869H	02154	178	44	30	Phase C-N / Phase C-A Voltage 108 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
086AH	02155	178	45	30	Phase C-N / Phase C-A Voltage 109 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
086BH	02156	178	46	30	Phase C-N / Phase C-A Voltage 110 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
086CH	02157	178	47	30	Phase C-N / Phase C-A Voltage 111 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
086DH	02158	178	48	30	Phase C-N / Phase C-A Voltage 112 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
086EH	02159	178	49	30	Phase C-N / Phase C-A Voltage 113 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
086FH	02160	178	50	30	Phase C-N / Phase C-A Voltage 114 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0870H	02161	178	51	30	Phase C-N / Phase C-A Voltage 115 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0871H	02162	178	52	30	Phase C-N / Phase C-A Voltage 116 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0872H	02163	178	53	30	Phase C-N / Phase C-A Voltage 117 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0873H	02164	178	54	30	Phase C-N / Phase C-A Voltage 118 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0874H	02165	178	55	30	Phase C-N / Phase C-A Voltage 119 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0875H	02166	178	56	30	Phase C-N / Phase C-A Voltage 120 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0876H	02167	178	57	30	Phase C-N / Phase C-A Voltage 121 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0877H	02168	178	58	30	Phase C-N / Phase C-A Voltage 122 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0878H	02169	178	59	30	Phase C-N / Phase C-A Voltage 123 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0879H	02170	178	60	30	Phase C-N / Phase C-A Voltage 124 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
087AH	02171	178	61	30	Phase C-N / Phase C-A Voltage 125 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
087BH	02172	178	62	30	Phase C-N / Phase C-A Voltage 126 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
087CH	02173	178	63	30	Phase C-N / Phase C-A Voltage 127 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
087DH	02174	179	0	30	Phase A Current 0 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
087EH	02175	179	1	30	Phase A Current 1 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
087FH	02176	179	2	30	Phase A Current 2 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0880H	02177	179	3	30	Phase A Current 3 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0881H	02178	179	4	30	Phase A Current 4 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0882H	02179	179	5	30	Phase A Current 5 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0883H	02180	179	6	30	Phase A Current 6 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0884H	02181	179	7	30	Phase A Current 7 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0885H	02182	180	0	30	Phase A Current 8 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0886H	02183	180	1	30	Phase A Current 9 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0887H	02184	180	2	30	Phase A Current 10 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0888H	02185	180	3	30	Phase A Current 11 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0889H	02186	180	4	30	Phase A Current 12 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
088AH	02187	180	5	30	Phase A Current 13 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
088BH	02188	180	6	30	Phase A Current 14 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
088CH	02189	180	7	30	Phase A Current 15 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
088DH	02190	181	0	30	Phase A Current 16 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
088EH	02191	181	1	30	Phase A Current 17 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
088FH	02192	181	2	30	Phase A Current 18 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0890H	02193	181	3	30	Phase A Current 19 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0891H	02194	181	4	30	Phase A Current 20 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0892H	02195	181	5	30	Phase A Current 21 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0893H	02196	181	6	30	Phase A Current 22 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0894H	02197	181	7	30	Phase A Current 23 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0895H	02198	181	8	30	Phase A Current 24 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0896H	02199	181	9	30	Phase A Current 25 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0897H	02200	181	10	30	Phase A Current 26 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0898H	02201	181	11	30	Phase A Current 27 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0899H	02202	181	12	30	Phase A Current 28 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
089AH	02203	181	13	30	Phase A Current 29 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
089BH	02204	181	14	30	Phase A Current 30 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
089CH	02205	181	15	30	Phase A Current 31 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
089DH	02206	182	0	30	Phase A Current 32 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
089EH	02207	182	1	30	Phase A Current 33 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
089FH	02208	182	2	30	Phase A Current 34 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A0H	02209	182	3	30	Phase A Current 35 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A1H	02210	182	4	30	Phase A Current 36 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A2H	02211	182	5	30	Phase A Current 37 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A3H	02212	182	6	30	Phase A Current 38 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A4H	02213	182	7	30	Phase A Current 39 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A5H	02214	182	8	30	Phase A Current 40 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
08A6H	02215	182	9	30	Phase A Current 41 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A7H	02216	182	10	30	Phase A Current 42 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A8H	02217	182	11	30	Phase A Current 43 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08A9H	02218	182	12	30	Phase A Current 44 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08AAH	02219	182	13	30	Phase A Current 45 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08ABH	02220	182	14	30	Phase A Current 46 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08ACH	02221	182	15	30	Phase A Current 47 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08ADH	02222	182	16	30	Phase A Current 48 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08AEH	02223	182	17	30	Phase A Current 49 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08AFH	02224	182	18	30	Phase A Current 50 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BOH	02225	182	19	30	Phase A Current 51 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B1H	02226	182	20	30	Phase A Current 52 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B2H	02227	182	21	30	Phase A Current 53 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B3H	02228	182	22	30	Phase A Current 54 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B4H	02229	182	23	30	Phase A Current 55 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B5H	02230	182	24	30	Phase A Current 56 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B6H	02231	182	25	30	Phase A Current 57 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B7H	02232	182	26	30	Phase A Current 58 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B8H	02233	182	27	30	Phase A Current 59 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08B9H	02234	182	28	30	Phase A Current 60 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BAH	02235	182	29	30	Phase A Current 61 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BBH	02236	182	30	30	Phase A Current 62 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BCH	02237	182	31	30	Phase A Current 63 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BDH	02238	183	0	30	Phase A Current 64 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BEH	02239	183	1	30	Phase A Current 65 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08BFH	02240	183	2	30	Phase A Current 66 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C0H	02241	183	3	30	Phase A Current 67 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C1H	02242	183	4	30	Phase A Current 68 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C2H	02243	183	5	30	Phase A Current 69 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C3H	02244	183	6	30	Phase A Current 70 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C4H	02245	183	7	30	Phase A Current 71 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C5H	02246	183	8	30	Phase A Current 72 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C6H	02247	183	9	30	Phase A Current 73 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C7H	02248	183	10	30	Phase A Current 74 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C8H	02249	183	11	30	Phase A Current 75 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08C9H	02250	183	12	30	Phase A Current 76 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08CAH	02251	183	13	30	Phase A Current 77 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08CBH	02252	183	14	30	Phase A Current 78 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08CCH	02253	183	15	30	Phase A Current 79 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08CDH	02254	183	16	30	Phase A Current 80 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08CEH	02255	183	17	30	Phase A Current 81 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08CFH	02256	183	18	30	Phase A Current 82 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08DOH	02257	183	19	30	Phase A Current 83 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D1H	02258	183	20	30	Phase A Current 84 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D2H	02259	183	21	30	Phase A Current 85 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D3H	02260	183	22	30	Phase A Current 86 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D4H	02261	183	23	30	Phase A Current 87 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D5H	02262	183	24	30	Phase A Current 88 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D6H	02263	183	25	30	Phase A Current 89 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D7H	02264	183	26	30	Phase A Current 90 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D8H	02265	183	27	30	Phase A Current 91 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08D9H	02266	183	28	30	Phase A Current 92 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08DAH	02267	183	29	30	Phase A Current 93 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08DBH	02268	183	30	30	Phase A Current 94 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08DCH	02269	183	31	30	Phase A Current 95 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08DDH	02270	183	32	30	Phase A Current 96 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
08DEH	02271	183	33	30	Phase A Current 97 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08DFH	02272	183	34	30	Phase A Current 98 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E0H	02273	183	35	30	Phase A Current 99 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E1H	02274	183	36	30	Phase A Current 100 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E2H	02275	183	37	30	Phase A Current 101 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E3H	02276	183	38	30	Phase A Current 102 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E4H	02277	183	39	30	Phase A Current 103 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E5H	02278	183	40	30	Phase A Current 104 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E6H	02279	183	41	30	Phase A Current 105 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E7H	02280	183	42	30	Phase A Current 106 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E8H	02281	183	43	30	Phase A Current 107 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08E9H	02282	183	44	30	Phase A Current 108 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08EAH	02283	183	45	30	Phase A Current 109 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08EBH	02284	183	46	30	Phase A Current 110 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08ECH	02285	183	47	30	Phase A Current 111 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08EDH	02286	183	48	30	Phase A Current 112 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08EEH	02287	183	49	30	Phase A Current 113 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08EFH	02288	183	50	30	Phase A Current 114 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F0H	02289	183	51	30	Phase A Current 115 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F1H	02290	183	52	30	Phase A Current 116 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F2H	02291	183	53	30	Phase A Current 117 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F3H	02292	183	54	30	Phase A Current 118 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F4H	02293	183	55	30	Phase A Current 119 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F5H	02294	183	56	30	Phase A Current 120 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F6H	02295	183	57	30	Phase A Current 121 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F7H	02296	183	58	30	Phase A Current 122 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F8H	02297	183	59	30	Phase A Current 123 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08F9H	02298	183	60	30	Phase A Current 124 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08FAH	02299	183	61	30	Phase A Current 125 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08FBH	02300	183	62	30	Phase A Current 126 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08FCH	02301	183	63	30	Phase A Current 127 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08FDH	02302	184	0	30	Phase B Current 0 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08FEH	02303	184	1	30	Phase B Current 1 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
08FFH	02304	184	2	30	Phase B Current 2 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0900H	02305	184	3	30	Phase B Current 3 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0901H	02306	184	4	30	Phase B Current 4 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0902H	02307	184	5	30	Phase B Current 5 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0903H	02308	184	6	30	Phase B Current 6 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0904H	02309	184	7	30	Phase B Current 7 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0905H	02310	185	0	30	Phase B Current 8 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0906H	02311	185	1	30	Phase B Current 9 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0907H	02312	185	2	30	Phase B Current 10 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0908H	02313	185	3	30	Phase B Current 11 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0909H	02314	185	4	30	Phase B Current 12 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
090AH	02315	185	5	30	Phase B Current 13 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
090BH	02316	185	6	30	Phase B Current 14 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
090CH	02317	185	7	30	Phase B Current 15 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
090DH	02318	186	0	30	Phase B Current 16 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
090EH	02319	186	1	30	Phase B Current 17 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
090FH	02320	186	2	30	Phase B Current 18 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0910H	02321	186	3	30	Phase B Current 19 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0911H	02322	186	4	30	Phase B Current 20 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0912H	02323	186	5	30	Phase B Current 21 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0913H	02324	186	6	30	Phase B Current 22 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0914H	02325	186	7	30	Phase B Current 23 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0915H	02326	186	8	30	Phase B Current 24 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0916H	02327	186	9	30	Phase B Current 25 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0917H	02328	186	10	30	Phase B Current 26 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0918H	02329	186	11	30	Phase B Current 27 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0919H	02330	186	12	30	Phase B Current 28 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
091AH	02331	186	13	30	Phase B Current 29 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
091BH	02332	186	14	30	Phase B Current 30 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
091CH	02333	186	15	30	Phase B Current 31 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
091DH	02334	187	0	30	Phase B Current 32 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
091EH	02335	187	1	30	Phase B Current 33 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
091FH	02336	187	2	30	Phase B Current 34 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0920H	02337	187	3	30	Phase B Current 35 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0921H	02338	187	4	30	Phase B Current 36 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0922H	02339	187	5	30	Phase B Current 37 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0923H	02340	187	6	30	Phase B Current 38 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0924H	02341	187	7	30	Phase B Current 39 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0925H	02342	187	8	30	Phase B Current 40 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0926H	02343	187	9	30	Phase B Current 41 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0927H	02344	187	10	30	Phase B Current 42 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0928H	02345	187	11	30	Phase B Current 43 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0929H	02346	187	12	30	Phase B Current 44 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
092AH	02347	187	13	30	Phase B Current 45 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
092BH	02348	187	14	30	Phase B Current 46 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
092CH	02349	187	15	30	Phase B Current 47 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
092DH	02350	187	16	30	Phase B Current 48 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
092EH	02351	187	17	30	Phase B Current 49 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
092FH	02352	187	18	30	Phase B Current 50 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0930H	02353	187	19	30	Phase B Current 51 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0931H	02354	187	20	30	Phase B Current 52 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0932H	02355	187	21	30	Phase B Current 53 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0933H	02356	187	22	30	Phase B Current 54 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0934H	02357	187	23	30	Phase B Current 55 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0935H	02358	187	24	30	Phase B Current 56 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0936H	02359	187	25	30	Phase B Current 57 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0937H	02360	187	26	30	Phase B Current 58 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0938H	02361	187	27	30	Phase B Current 59 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0939H	02362	187	28	30	Phase B Current 60 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
093AH	02363	187	29	30	Phase B Current 61 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
093BH	02364	187	30	30	Phase B Current 62 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
093CH	02365	187	31	30	Phase B Current 63 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
093DH	02366	188	0	30	Phase B Current 64 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
093EH	02367	188	1	30	Phase B Current 65 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
093FH	02368	188	2	30	Phase B Current 66 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0940H	02369	188	3	30	Phase B Current 67 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0941H	02370	188	4	30	Phase B Current 68 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0942H	02371	188	5	30	Phase B Current 69 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0943H	02372	188	6	30	Phase B Current 70 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0944H	02373	188	7	30	Phase B Current 71 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0945H	02374	188	8	30	Phase B Current 72 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0946H	02375	188	9	30	Phase B Current 73 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0947H	02376	188	10	30	Phase B Current 74 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0948H	02377	188	11	30	Phase B Current 75 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0949H	02378	188	12	30	Phase B Current 76 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
094AH	02379	188	13	30	Phase B Current 77 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
094BH	02380	188	14	30	Phase B Current 78 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
094CH	02381	188	15	30	Phase B Current 79 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
094DH	02382	188	16	30	Phase B Current 80 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
094EH	02383	188	17	30	Phase B Current 81 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
094FH	02384	188	18	30	Phase B Current 82 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0950H	02385	188	19	30	Phase B Current 83 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0951H	02386	188	20	30	Phase B Current 84 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0952H	02387	188	21	30	Phase B Current 85 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0953H	02388	188	22	30	Phase B Current 86 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0954H	02389	188	23	30	Phase B Current 87 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0955H	02390	188	24	30	Phase B Current 88 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0956H	02391	188	25	30	Phase B Current 89 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0957H	02392	188	26	30	Phase B Current 90 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0958H	02393	188	27	30	Phase B Current 91 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0959H	02394	188	28	30	Phase B Current 92 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
095AH	02395	188	29	30	Phase B Current 93 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
095BH	02396	188	30	30	Phase B Current 94 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
095CH	02397	188	31	30	Phase B Current 95 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
095DH	02398	188	32	30	Phase B Current 96 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
095EH	02399	188	33	30	Phase B Current 97 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
095FH	02400	188	34	30	Phase B Current 98 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0960H	02401	188	35	30	Phase B Current 99 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0961H	02402	188	36	30	Phase B Current 100 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0962H	02403	188	37	30	Phase B Current 101 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0963H	02404	188	38	30	Phase B Current 102 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0964H	02405	188	39	30	Phase B Current 103 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0965H	02406	188	40	30	Phase B Current 104 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0966H	02407	188	41	30	Phase B Current 105 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0967H	02408	188	42	30	Phase B Current 106 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0968H	02409	188	43	30	Phase B Current 107 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0969H	02410	188	44	30	Phase B Current 108 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
096AH	02411	188	45	30	Phase B Current 109 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
096BH	02412	188	46	30	Phase B Current 110 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
096CH	02413	188	47	30	Phase B Current 111 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
096DH	02414	188	48	30	Phase B Current 112 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
096EH	02415	188	49	30	Phase B Current 113 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
096FH	02416	188	50	30	Phase B Current 114 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0970H	02417	188	51	30	Phase B Current 115 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0971H	02418	188	52	30	Phase B Current 116 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0972H	02419	188	53	30	Phase B Current 117 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0973H	02420	188	54	30	Phase B Current 118 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0974H	02421	188	55	30	Phase B Current 119 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0975H	02422	188	56	30	Phase B Current 120 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0976H	02423	188	57	30	Phase B Current 121 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0977H	02424	188	58	30	Phase B Current 122 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0978H	02425	188	59	30	Phase B Current 123 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0979H	02426	188	60	30	Phase B Current 124 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
097AH	02427	188	61	30	Phase B Current 125 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
097BH	02428	188	62	30	Phase B Current 126 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
097CH	02429	188	63	30	Phase B Current 127 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
097DH	02430	189	0	30	Phase C Current 0 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
097EH	02431	189	1	30	Phase C Current 1 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
097FH	02432	189	2	30	Phase C Current 2 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0980H	02433	189	3	30	Phase C Current 3 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0981H	02434	189	4	30	Phase C Current 4 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0982H	02435	189	5	30	Phase C Current 5 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0983H	02436	189	6	30	Phase C Current 6 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0984H	02437	189	7	30	Phase C Current 7 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0985H	02438	190	0	30	Phase C Current 8 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0986H	02439	190	1	30	Phase C Current 9 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0987H	02440	190	2	30	Phase C Current 10 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0988H	02441	190	3	30	Phase C Current 11 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0989H	02442	190	4	30	Phase C Current 12 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
098AH	02443	190	5	30	Phase C Current 13 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
098BH	02444	190	6	30	Phase C Current 14 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
098CH	02445	190	7	30	Phase C Current 15 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
098DH	02446	191	0	30	Phase C Current 16 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
098EH	02447	191	1	30	Phase C Current 17 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
098FH	02448	191	2	30	Phase C Current 18 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0990H	02449	191	3	30	Phase C Current 19 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0991H	02450	191	4	30	Phase C Current 20 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0992H	02451	191	5	30	Phase C Current 21 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0993H	02452	191	6	30	Phase C Current 22 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0994H	02453	191	7	30	Phase C Current 23 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0995H	02454	191	8	30	Phase C Current 24 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0996H	02455	191	9	30	Phase C Current 25 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0997H	02456	191	10	30	Phase C Current 26 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0998H	02457	191	11	30	Phase C Current 27 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
0999H	02458	191	12	30	Phase C Current 28 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
099AH	02459	191	13	30	Phase C Current 29 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
099BH	02460	191	14	30	Phase C Current 30 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
099CH	02461	191	15	30	Phase C Current 31 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
099DH	02462	192	0	30	Phase C Current 32 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
099EH	02463	192	1	30	Phase C Current 33 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
099FH	02464	192	2	30	Phase C Current 34 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A0H	02465	192	3	30	Phase C Current 35 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A1H	02466	192	4	30	Phase C Current 36 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A2H	02467	192	5	30	Phase C Current 37 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A3H	02468	192	6	30	Phase C Current 38 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A4H	02469	192	7	30	Phase C Current 39 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A5H	02470	192	8	30	Phase C Current 40 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A6H	02471	192	9	30	Phase C Current 41 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A7H	02472	192	10	30	Phase C Current 42 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A8H	02473	192	11	30	Phase C Current 43 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09A9H	02474	192	12	30	Phase C Current 44 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09AAH	02475	192	13	30	Phase C Current 45 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09ABH	02476	192	14	30	Phase C Current 46 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09ACH	02477	192	15	30	Phase C Current 47 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09ADH	02478	192	16	30	Phase C Current 48 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09AEH	02479	192	17	30	Phase C Current 49 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09AFH	02480	192	18	30	Phase C Current 50 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B0H	02481	192	19	30	Phase C Current 51 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B1H	02482	192	20	30	Phase C Current 52 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B2H	02483	192	21	30	Phase C Current 53 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B3H	02484	192	22	30	Phase C Current 54 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B4H	02485	192	23	30	Phase C Current 55 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B5H	02486	192	24	30	Phase C Current 56 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B6H	02487	192	25	30	Phase C Current 57 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B7H	02488	192	26	30	Phase C Current 58 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B8H	02489	192	27	30	Phase C Current 59 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09B9H	02490	192	28	30	Phase C Current 60 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09BAH	02491	192	29	30	Phase C Current 61 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09BBH	02492	192	30	30	Phase C Current 62 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09BCH	02493	192	31	30	Phase C Current 63 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09BDH	02494	193	0	30	Phase C Current 64 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
09BEH	02495	193	1	30	Phase C Current 65 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09BFH	02496	193	2	30	Phase C Current 66 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C0H	02497	193	3	30	Phase C Current 67 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C1H	02498	193	4	30	Phase C Current 68 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C2H	02499	193	5	30	Phase C Current 69 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C3H	02500	193	6	30	Phase C Current 70 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C4H	02501	193	7	30	Phase C Current 71 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C5H	02502	193	8	30	Phase C Current 72 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C6H	02503	193	9	30	Phase C Current 73 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C7H	02504	193	10	30	Phase C Current 74 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C8H	02505	193	11	30	Phase C Current 75 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09C9H	02506	193	12	30	Phase C Current 76 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09CAH	02507	193	13	30	Phase C Current 77 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09CBH	02508	193	14	30	Phase C Current 78 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09CCH	02509	193	15	30	Phase C Current 79 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09CDH	02510	193	16	30	Phase C Current 80 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09CEH	02511	193	17	30	Phase C Current 81 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09CFH	02512	193	18	30	Phase C Current 82 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D0H	02513	193	19	30	Phase C Current 83 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D1H	02514	193	20	30	Phase C Current 84 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D2H	02515	193	21	30	Phase C Current 85 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D3H	02516	193	22	30	Phase C Current 86 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D4H	02517	193	23	30	Phase C Current 87 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D5H	02518	193	24	30	Phase C Current 88 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D6H	02519	193	25	30	Phase C Current 89 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D7H	02520	193	26	30	Phase C Current 90 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D8H	02521	193	27	30	Phase C Current 91 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09D9H	02522	193	28	30	Phase C Current 92 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09DAH	02523	193	29	30	Phase C Current 93 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09DBH	02524	193	30	30	Phase C Current 94 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09DCH	02525	193	31	30	Phase C Current 95 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09DDH	02526	193	32	30	Phase C Current 96 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09DEH	02527	193	33	30	Phase C Current 97 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09DFH	02528	193	34	30	Phase C Current 98 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E0H	02529	193	35	30	Phase C Current 99 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E1H	02530	193	36	30	Phase C Current 100 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E2H	02531	193	37	30	Phase C Current 101 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E3H	02532	193	38	30	Phase C Current 102 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E4H	02533	193	39	30	Phase C Current 103 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E5H	02534	193	40	30	Phase C Current 104 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E6H	02535	193	41	30	Phase C Current 105 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E7H	02536	193	42	30	Phase C Current 106 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E8H	02537	193	43	30	Phase C Current 107 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09E9H	02538	193	44	30	Phase C Current 108 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09EAH	02539	193	45	30	Phase C Current 109 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09EBH	02540	193	46	30	Phase C Current 110 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09ECH	02541	193	47	30	Phase C Current 111 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09EDH	02542	193	48	30	Phase C Current 112 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09EEH	02543	193	49	30	Phase C Current 113 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09EFH	02544	193	50	30	Phase C Current 114 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F0H	02545	193	51	30	Phase C Current 115 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F1H	02546	193	52	30	Phase C Current 116 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F2H	02547	193	53	30	Phase C Current 117 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F3H	02548	193	54	30	Phase C Current 118 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F4H	02549	193	55	30	Phase C Current 119 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F5H	02550	193	56	30	Phase C Current 120 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
09F6H	02551	193	57	30	Phase C Current 121 st Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F7H	02552	193	58	30	Phase C Current 122 nd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F8H	02553	193	59	30	Phase C Current 123 rd Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09F9H	02554	193	60	30	Phase C Current 124 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09FAH	02555	193	61	30	Phase C Current 125 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09FBH	02556	193	62	30	Phase C Current 126 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
09FCH	02557	193	63	30	Phase C Current 127 th Harmonic Phase	+180 degree / -180 degree	0.01 degree	F9	R	
THD/K-Factor Block										
09FDH	02558	194	0	30	Phase A-N / Phase A-B Voltage THD	+327.67% / -327.68%	0.01%	F10	R	
09FEH	02559	195	0	30	Phase B-N / Phase B-C Voltage THD	+327.67% / -327.68%	0.01%	F10	R	
09FFH	02560	196	0	30	Phase C-N / Phase C-A Voltage THD	+327.67% / -327.68%	0.01%	F10	R	
0A00H	02561	197	0	30	Phase A Current THD	+327.67% / -327.68%	0.01%	F10	R	
0A01H	02562	198	0	30	Phase B Current THD	+327.67% / -327.68%	0.01%	F10	R	
0A02H	02563	199	0	30	Phase C Current THD	+327.67% / -327.68%	0.01%	F10	R	
0A03H	02564	200	0	30	Phase A Current K-Factor	327.67 / -327.68	0.01	F67	R	
0A04H	02565	201	0	30	Phase B Current K-Factor	327.67 / -327.68	0.01	F67	R	
0A05H	02566	202	0	30	Phase C Current K-Factor	327.67 / -327.68	0.01	F67	R	
Harmonic Time Stamp Block										
0A06H-0A09H	02567-02570	203	0	50	Phase A-N / Phase A-B Voltage Harmonic Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A0AH-0A0DH	02571-02574	204	0	50	Phase B-N / Phase B-C Voltage Harmonic Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A0EH-0A11H	02575-02578	205	0	50	Phase C-N / Phase C-A Voltage Harmonic Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A12H-0A15H	02579-02582	206	0	50	Phase A Current Harmonic Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A16H-0A19H	02583-02586	207	0	50	Phase B Current Harmonic Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A1AH-0A1DH	02587-02590	208	0	50	Phase C Current Harmonic Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
Phase Angle Block										
0A1EH-0A21H	02591-02594	209	0	50	Phase Angle Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A22H	02595	210	0	30	Phase Angle Phase A-N Voltage	+180 degree / -180 degree	0.01 degree	F9	R	
0A23H	02596	210	1	30	Phase Angle Phase B-N Voltage	+180 degree / -180 degree	0.01 degree	F9	R	
0A24H	02597	210	2	30	Phase Angle Phase C-N Voltage	+180 degree / -180 degree	0.01 degree	F9	R	
0A25H	02598	211	0	30	Phase Angle Phase A Current	+180 degree / -180 degree	0.01 degree	F9	R	
0A26H	02599	211	1	30	Phase Angle Phase B Current	+180 degree / -180 degree	0.01 degree	F9	R	
0A27H	02600	211	2	30	Phase Angle Phase C Current	+180 degree / -180 degree	0.01 degree	F9	R	
0A28H	02601	212	0	30	Phase Angle Phase A-B Voltage	+180 degree / -180 degree	0.01 degree	F9	R	
0A29H	02602	212	1	30	Phase Angle Phase B-C Voltage	+180 degree / -180 degree	0.01 degree	F9	R	
0A2AH	02603	212	2	30	Phase Angle Phase C-A Voltage	+180 degree / -180 degree	0.01 degree	F9	R	
0A2BH	02604	213	0	30	Voltage Phase Sequence			F13	R	
Block Window Average Block										
0A2CH-0A2FH	02605-02608	214	0	50	Block Window Average Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A30H	02609	215	0	30	Block Window Average Status			F14	R	
0A31H-0A32H	02610-02611	216	0	30	Block Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A33H-0A34H	02612-02613	216	1	30	Block Window Average VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A35H-0A36H	02614-02615	216	2	30	Block Window Average Watt	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0A37H-0A38H	02616-02617	217	0	30	Maximum Block Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A39H-0A3AH	02618-02619	217	1	30	Maximum Block Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
0A32BH-0A3CH	02620-02621	217	2	30	Maximum Block Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A3DH-0A3EH	02622-02623	217	3	30	Maximum Block Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
0A3FH-0A40H	02624-02625	217	4	30	Maximum Block Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0A41H-0A42H	02626-02627	218	0	30	Minimum Block Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A43H-0A44H	02628-02629	218	1	30	Minimum Block Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
0A45H-0A46H	02630-02631	218	2	30	Minimum Block Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A47H-0A48H	02632-02633	218	3	30	Minimum Block Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
0A49H-0A4AH	02634-02635	218	4	30	Minimum Block Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0A4BH-0A4CH	02636-02637	219	0	30	Coincident Block Window Average VAR for Maximum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A4DH-0A4EH	02638-02639	219	1	30	Coincident Block Window Average VAR for Maximum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0A4FH-0A50H	02640-02641	219	2	30	Coincident Block Window Average VAR for Minimum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A51H-0A52H	02642-02643	219	3	30	Coincident Block Window Average VAR for Minimum Negative Watt	-G1990+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A53H-0A56H	02644-02647	220	0	50	Maximum Block Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A57H-0A5AH	02648-02651	220	1	50	Maximum Block Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A5BH-0A5EH	02652-02655	220	2	50	Maximum Block Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A5FH-0A62H	02656-02659	220	3	50	Maximum Block Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A63H-0A66H	02660-02663	220	4	50	Maximum Block Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A67H-0A6AH	02664-02667	221	0	50	Minimum Block Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A6BH-0A6EH	02668-02671	221	1	50	Minimum Block Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A6FH-0A72H	02672-02675	221	2	50	Minimum Block Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A73H-0A76H	02676-02679	221	3	50	Minimum Block Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A77H-0A7AH	02680-02683	221	4	50	Minimum Block Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
Rolling Window Block										
0A7BH-0A7EH	02684-02687	222	0	50	Rolling Window Average Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0A7FH	02688	223	0	30	Rolling Window Average Status			F14	R	
0A80H-0A81H	02689-02690	224	0	30	Reserved	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A82H-0A83H	02691-02692	224	1	30	Reserved	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A84H-0A85H	02693-02694	224	2	30	Reserved	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0A86H-0A87H	02695-02696	225	0	30	Rolling Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A88H-0A89H	02697-02698	225	1	30	Rolling Window Average VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A8AH-0A8BH	02699-02700	225	2	30	Rolling Window Average W	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0A8CH-0A8DH	02701-02702	226	0	30	Maximum Rolling Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A8EH-0A8FH	02703-02704	226	1	30	Maximum Rolling Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
0A91H-0A91H	02705-02706	226	2	30	Maximum Rolling Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A92H-0A93H	02707-02708	226	3	30	Maximum Rolling Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
0A94H-0A95H	02709-02710	226	4	30	Maximum Rolling Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0A96H-0A97H	02711-02712	227	0	30	Minimum Rolling Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0A98H-0A99H	02713-02714	227	1	30	Minimum Rolling Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
0A9AH-0A9BH	02715-02716	227	2	30	Minimum Rolling Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0A9CH-0A9DH	02717-02718	227	3	30	Minimum Rolling Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
0A9EH-0A9FH	02719-02720	227	4	30	Minimum Rolling Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
0AA0H-0AA1H	02721-02722	228	0	30	Coincident Rolling Window Average VAR for Maximum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0AA2H-0AA3H	02723-02724	228	1	30	Coincident Rolling Window Average VAR for Maximum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0AA4H-0AA5H	02725-02726	228	2	30	Coincident Rolling Window Average VAR for Minimum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0AA6H-0AA7H	02727-02728	228	3	30	Coincident Rolling Window Average VAR for Minimum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0AA8H-0AABH	02729-02732	229	0	50	Maximum Rolling Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AACH-0AAFH	02733-02736	229	1	50	Maximum Rolling Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AB0H-0AB3H	02737-02740	229	2	50	Maximum Rolling Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AB4H-0AB7H	02741-02744	229	3	50	Maximum Rolling Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AB8H-0ABBH	02745-02748	229	4	50	Maximum Rolling Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0ABCH-0ABFH	02749-02752	230	0	50	Minimum Rolling Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AC0H-0AC3H	02753-02756	230	1	50	Minimum Rolling Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AC4H-0AC7H	02757-02760	230	2	50	Minimum Rolling Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0AC8H-0ACBH	02761-02764	230	3	50	Minimum Rolling Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
0ACCH-0ACFH	02765-02768	230	4	50	Minimum Rolling Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
Limit Block										
0AD0H	02769	231	0-15	1	Limit States, Value 1 Comparisons, 1-16			F15	R	
0AD1H	02770	231	16-31	1	Limit States, Value 1 Comparisons, 17-32			F15	R	
0AD2H	02771	232	0-15	1	Limit States, Value 2 Comparisons, 1-16			F15	R	
0AD3H	02772	232	16-31	1	Limit States, Value 2 Comparisons, 17-32			F15	R	
0AD4H	02773	233	0-7	1	Low Speed (Internal) Inputs			F16	R	
Digital Input Block										
0AD5H	02774	234	0-7	1	Digital Input States, Module 1			F17	R	
0AD6H-0AD7H	02775-02776	235	0	20	Digital Input Accumulation 1, Module 1	4,294,967,295 / 0		F18	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0AD8H-0AD9H	02777-02778	235	1	20	Digital Input Accumulation 2, Module 1	4,294,967,295 / 0		F18	R	
0ADBH-0ADCH	02779-02780	235	2	20	Digital Input Accumulation 3, Module 1	4,294,967,295 / 0		F18	R	
0ADDH-0ADEH	02781-02782	235	3	20	Digital Input Accumulation 4, Module 1	4,294,967,295 / 0		F18	R	
0ADEH-0ADFH	02783-02784	235	4	20	Digital Input Accumulation 5, Module 1	4,294,967,295 / 0		F18	R	
0AE0H-0AE1H	02785-02786	235	5	20	Digital Input Accumulation 6, Module 1	4,294,967,295 / 0		F18	R	
0AE2H-0AE3H	02787-02788	235	6	20	Digital Input Accumulation 7, Module 1	4,294,967,295 / 0		F18	R	
0AE4H-0AE5H	02789-02790	235	7	20	Digital Input Accumulation 8, Module 1	4,294,967,295 / 0		F18	R	
0AE6H	02791	236	0-7	1	Digital Input States, Module 2			F17	R	
0AE7H-0AE8H	02792-02793	237	0	20	Digital Input Accumulation 1, Module 2	4,294,967,295 / 0		F18	R	
0AE9H-0AEA	02794-02795	237	1	20	Digital Input Accumulation 2, Module 2	4,294,967,295 / 0		F18	R	
0AEBH-0AEC	02796-02797	237	2	20	Digital Input Accumulation 3, Module 2	4,294,967,295 / 0		F18	R	
0AEDH-0AEEH	02798-02799	237	3	20	Digital Input Accumulation 4, Module 2	4,294,967,295 / 0		F18	R	
0AEFH-0AF0H	02800-02801	237	4	20	Digital Input Accumulation 5, Module 2	4,294,967,295 / 0		F18	R	
0AF1H-0AF2H	02802-02803	237	5	20	Digital Input Accumulation 6, Module 2	4,294,967,295 / 0		F18	R	
0AF3H-0AF4H	02804-02805	237	6	20	Digital Input Accumulation 7, Module 2	4,294,967,295 / 0		F18	R	
0AF5H-0AF6H	02806-02807	237	7	20	Digital Input Accumulation 8, Module 2	4,294,967,295 / 0		F18	R	
0AF7H	02808	238	0-7	1	Digital Input States, Module 3			F17	R	
0AF8H-0AF9H	02809-02810	239	0	20	Digital Input Accumulation 1, Module 3	4,294,967,295 / 0		F18	R	
0AFAH-0AFBH	02811-02812	239	1	20	Digital Input Accumulation 2, Module 3	4,294,967,295 / 0		F18	R	
0AFCH-0AFDH	02813-02814	239	2	20	Digital Input Accumulation 3, Module 3	4,294,967,295 / 0		F18	R	
0AFEH-0AFFH	02815-02816	239	3	20	Digital Input Accumulation 4, Module 3	4,294,967,295 / 0		F18	R	
0B00H-0B01H	02817-02818	239	4	20	Digital Input Accumulation 5, Module 3	4,294,967,295 / 0		F18	R	
0B02H-0B03H	02819-02820	239	5	20	Digital Input Accumulation 6, Module 3	4,294,967,295 / 0		F18	R	
0B04H-0B05H	02821-02822	239	6	20	Digital Input Accumulation 7, Module 3	4,294,967,295 / 0		F18	R	
0B06H-0B07H	02823-02824	239	7	20	Digital Input Accumulation 8, Module 3	4,294,967,295 / 0		F18	R	
0B08H	02825	240	0-7	1	Digital Input States, Module 4			F17	R	
0B09H-0B0AH	02826-02827	241	0	20	Digital Input Accumulation 1, Module 4	4,294,967,295 / 0		F18	R	
0B0BH-0B0CH	02828-02829	241	1	20	Digital Input Accumulation 2, Module 4	4,294,967,295 / 0		F18	R	
0B0DH-0B0EH	02830-02831	241	2	20	Digital Input Accumulation 3, Module 4	4,294,967,295 / 0		F18	R	
0B0FH-0B10H	02832-02833	241	3	20	Digital Input Accumulation 4, Module 4	4,294,967,295 / 0		F18	R	
0B11H-0B12H	02834-02835	241	4	20	Digital Input Accumulation 5, Module 4	4,294,967,295 / 0		F18	R	
0B13H-0B14H	02836-02837	241	5	20	Digital Input Accumulation 6, Module 4	4,294,967,295 / 0		F18	R	
0B15H-0B16H	02838-02839	241	6	20	Digital Input Accumulation 7, Module 4	4,294,967,295 / 0		F18	R	
0B17H-0B18H	02840-02841	241	7	20	Digital Input Accumulation 8, Module 4	4,294,967,295 / 0		F18	R	
0B43H-0BFFH	02884-03072				reserved					
0C00H-0C01H	03073-03074				One cycle Phase A VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0C02H-0C03H	03075-03076				One cycle Phase B VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0C04H-0C05H	03077-03078				One cycle Phase C VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0C06H-0C07H	03079-03080				One cycle Three Phase VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
0C08H-0C09H	03081-03082				One cycle Phase A VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C0AH-0C0BH	03083-03084				One cycle Phase B VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C0CH-0C0DH	03085-03086				One cycle Phase C VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C0EH-0C0FH	03087-03088				One cycle Three Phase VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C10H-0C11H	03089-03090				One cycle Phase A Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0C12H-0C13H	03091-03092				One cycled Phase B Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0C14H-0C15H	03093-03094				One cycle Phase C Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0C16H-0C17H	03095-03096				One cycle Three Phase Watts	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
0C18h-0C19H	03097-03098				One cycle Frequency	+32767 Hz / 0 Hz	1/ 65536 Hz	F7	R	
0C1AH	03099				One cycle Phase A Power Factor	3,999 / 0.000	0.001 PF	F8	R	
0C1BH	03100				One cycle Phase B Power Factor	3,999 / 0.000	0.001 PF	F8	R	
0C1CH	03101				One cycle Phase C Power Factor	3,999 / 0.000	0.001 PF	F8	R	
0C1DH	03102				One cycle Three Phase Power Factor	3,999 / 0.000	0.001 PF	F8	R	
0C1EH-0C1FH	03103-03104				One cycle Phase A Fundamental VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C20H-0C21H	03105-03106				One cycle Phase B Fundamental VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C22H-0C23H	03107-03108				One cycle Phase C Fundamental VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C24H-0C25H	03109-03110				One cycle Three Phase Fundamental VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
0C26H	03111				One cycle Phase A Fundamental Power Factor	3,999 / 0.000	0.001 PF	F8	R	
0C27H	03112				One cycle Phase B Fundamental Power Factor	3,999 / 0.000	0.001 PF	F8	R	
0C28H	03113				One cycle Phase C Fundamental Power Factor	3,999 / 0.000	0.001 PF	F8	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
0C29H	03114				One cycle Three Phase Fundamental Power Factor	3.999 / 0.000	0.001 PF	F8	R	
					Reserved Block					
0C2AH-166FH	03115-05744				reserved				R	
					Internal Input Pulse Accumulation Block					
1670H-1673H	05745-05748	399	0	50	Internal Input Pulse Accumulation Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1674H-1677H	05749-05752	400	0	20	Pulse Accumulation Internal Input 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1678H-167BH	05753-05756	400	1	20	Pulse Accumulation Internal Input 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
167CH-167FH	05757-05760	400	2	20	Pulse Accumulation Internal Input 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1680H-1683H	05761-05764	400	3	20	Pulse Accumulation Internal Input 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1684H-1687H	05765-05768	400	4	20	Pulse Accumulation Internal Input 5	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1688H-168BH	05769-05772	400	5	20	Pulse Accumulation Internal Input 6	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
168CH-168FH	05773-05776	400	6	20	Pulse Accumulation Internal Input 7	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1690H-1693H	05777-05780	400	7	20	Pulse Accumulation Internal Input 8	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1694H-1697H	05781-05784	401	0	20	Pulse Accumulation Aggregation 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1698H-169BH	05785-05788	401	1	20	Pulse Accumulation Aggregation 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
169CH-169FH	05789-05792	401	2	20	Pulse Accumulation Aggregation 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16A0H-16A3H	05793-05796	401	3	20	Pulse Accumulation Aggregation 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
					Pulse Accumulation Block Window Average / Maximum Block					
16A4H-16A7H	05797-05800	402	0	50	Pulse Accumulation Block Window Average / Maximum Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
16A8H	05801	403	0	30	Pulse Accumulation Block Window Average / Maximum Block Status			F14	R	
16A9H-16ACH	05802-05805	404	0	20	Block Window Average Internal Input 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16ADH-16B0H	05806-05809	404	1	20	Block Window Average Internal Input 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16B1H-16B4H	05810-05813	404	2	20	Block Window Average Internal Input 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16B5H-16B8H	05814-05817	404	3	20	Block Window Average Internal Input 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16B9H-16BCH	05818-05821	404	4	20	Block Window Average Internal Input 5	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16BDH-16C0H	05822-05825	404	5	20	Block Window Average Internal Input 6	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16C1H-16C4H	05826-05829	404	6	20	Block Window Average Internal Input 7	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16C5H-16C8H	05830-05833	404	7	20	Block Window Average Internal Input 8	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16C9H-16CCH	05834-05837	405	0	20	Block Window Average Aggregation 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16CDH-16DOH	05838-05841	405	1	20	Block Window Average Aggregation 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16D1H-16D4H	05842-05845	405	2	20	Block Window Average Aggregation 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16D5H-16D8H	05846-05849	405	3	20	Block Window Average Aggregation 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16D9H-16DCH	05850-05853	406	0	20	Maximum Block Window Average Internal Input 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16DDH-16EOH	05854-05857	406	1	20	Maximum Block Window Average Internal Input 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16E1H-16E4H	05858-05861	406	2	20	Maximum Block Window Average Internal Input 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16E5H-16E8H	05862-05865	406	3	20	Maximum Block Window Average Internal Input 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
16E9H-16ECH	05866-05869	406	4	20	Maximum Block Window Average Internal Input 5	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16EDH-16FOH	05870-05873	406	5	20	Maximum Block Window Average Internal Input 6	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16F1H-16F4H	05874-05877	406	6	20	Maximum Block Window Average Internal Input 7	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16F5H-16F8H	05878-05881	406	7	20	Maximum Block Window Average Internal Input 8	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16F9H-16FCH	05882-05885	407	0	20	Maximum Block Window Average Aggregation 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
16FDH-1700H	05886-05889	407	1	20	Maximum Block Window Average Aggregation 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1701H-1704H	05890-05893	407	2	20	Maximum Block Window Average Aggregation 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1705H-1708H	05894-05897	407	3	20	Maximum Block Window Average Aggregation 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1709H-170CH	05898-05901	408	0	50	Maximum Block Window Average Internal Input 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
170DH-1710H	05902-05905	408	1	50	Maximum Block Window Average Internal Input 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1711H-1714H	05906-05909	408	2	50	Maximum Block Window Average Internal Input 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1715H-1718H	05910-05913	408	3	50	Maximum Block Window Average Internal Input 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1719H-171CH	05914-05917	408	4	50	Maximum Block Window Average Internal Input 5 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
171DH-1720H	05918-05921	408	5	50	Maximum Block Window Average Internal Input 6 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1721H-1724H	05922-05925	408	6	50	Maximum Block Window Average Internal Input 7 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1725H-1728H	05926-05929	408	7	50	Maximum Block Window Average Internal Input 8 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1729H-172CH	05930-05933	409	0	50	Maximum Block Window Average Aggregation 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
172DH-1730H	05934-05937	409	1	50	Maximum Block Window Average Aggregation 2 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1731H-1734H	05938-05941	409	2	50	Maximum Block Window Average Aggregation 3 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1735H-1738H	05942-05945	409	3	50	Maximum Block Window Average Aggregation 4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
Temperature										
1739H	05946	410	0	30	Nexus Internal Temperature	+3276.7 C / -3276.8 C	0.1 degree C	F33		
Analog Input Block										
173AH	05947	411	0	30	Analog Input 1, Module 1	+327.67% / -327.68%	0.01%	F10	R	
173BH	05948	411	1	30	Analog Input 2, Module 1	+327.67% / -327.68%	0.01%	F10	R	
173CH	05949	411	2	30	Analog Input 3, Module 1	+327.67% / -327.68%	0.01%	F10	R	
173DH	05950	411	3	30	Analog Input 4, Module 1	+327.67% / -327.68%	0.01%	F10	R	
173EH	05951	411	4	30	Analog Input 5, Module 1	+327.67% / -327.68%	0.01%	F10	R	
173FH	05952	411	5	30	Analog Input 6, Module 1	+327.67% / -327.68%	0.01%	F10	R	
1740H	05953	411	6	30	Analog Input 7, Module 1	+327.67% / -327.68%	0.01%	F10	R	
1741H	05954	411	7	30	Analog Input 8, Module 1	+327.67% / -327.68%	0.01%	F10	R	
1742H	05955	412	0	30	Analog Input 1, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1743H	05956	412	1	30	Analog Input 2, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1744H	05957	412	2	30	Analog Input 3, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1745H	05958	412	3	30	Analog Input 4, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1746H	05959	412	4	30	Analog Input 5, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1747H	05960	412	5	30	Analog Input 6, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1748H	05961	412	6	30	Analog Input 7, Module 2	+327.67% / -327.68%	0.01%	F10	R	
1749H	05962	412	7	30	Analog Input 8, Module 2	+327.67% / -327.68%	0.01%	F10	R	
174AH	05963	413	0	30	Analog Input 1, Module 3	+327.67% / -327.68%	0.01%	F10	R	
174BH	05964	413	1	30	Analog Input 2, Module 3	+327.67% / -327.68%	0.01%	F10	R	
174CH	05965	413	2	30	Analog Input 3, Module 3	+327.67% / -327.68%	0.01%	F10	R	
174DH	05966	413	3	30	Analog Input 4, Module 3	+327.67% / -327.68%	0.01%	F10	R	
174EH	05967	413	4	30	Analog Input 5, Module 3	+327.67% / -327.68%	0.01%	F10	R	
174FH	05968	413	5	30	Analog Input 6, Module 3	+327.67% / -327.68%	0.01%	F10	R	
1750H	05969	413	6	30	Analog Input 7, Module 3	+327.67% / -327.68%	0.01%	F10	R	
1751H	05970	413	7	30	Analog Input 8, Module 3	+327.67% / -327.68%	0.01%	F10	R	
1752H	05971	414	0	30	Analog Input 1, Module 4	+327.67% / -327.68%	0.01%	F10	R	
1753H	05972	414	1	30	Analog Input 2, Module 4	+327.67% / -327.68%	0.01%	F10	R	
1754H	05973	414	2	30	Analog Input 3, Module 4	+327.67% / -327.68%	0.01%	F10	R	
1755H	05974	414	3	30	Analog Input 4, Module 4	+327.67% / -327.68%	0.01%	F10	R	
1756H	05975	414	4	30	Analog Input 5, Module 4	+327.67% / -327.68%	0.01%	F10	R	
1757H	05976	414	5	30	Analog Input 6, Module 4	+327.67% / -327.68%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1758H	05977	414	6	30	Analog Input 7, Module 4	+327.67% / -327.68%	0.01%	F10	R	
1759H	05978	414	7	30	Analog Input 8, Module 4	+327.67% / -327.68%	0.01%	F10	R	
Limit Combination Block										
175AH	05979	415	0-15	1	Limit States, Combinations, 1-16			F34	R	
175BH	05980	415	16-31	1	Limit States, Combinations, 17-32			F34	R	
Relay Logic Block										
175CH-175FH	05981-05984	416	0	50	Relay Logic Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	
1760H	05985	417	0-15	1	Relay Logic States, Input 1, Relays 1-16			F34	R	
1761H	05986	418	0-15	1	Relay Logic States, Input 2, Relays 1-16			F34	R	
1762H	05987	419	0-15	1	Relay Logic States, Input 3, Relays 1-16			F34	R	
1763H	05988	420	0-15	1	Relay Logic States, Input 4, Relays 1-16			F34	R	
1764H	05989	421	0-15	1	Relay Logic States, Input 5, Relays 1-16			F34	R	
1765H	05990	422	0-15	1	Relay Logic States, Input 6, Relays 1-16			F34	R	
1766H	05991	423	0-15	1	Relay Logic States, Input 7, Relays 1-16			F34	R	
1767H	05992	424	0-15	1	Relay Logic States, Input 8, Relays 1-16			F34	R	
1768H	05993	425	0-15	1	Relay Logic States, Gate A, Relays 1-16			F34	R	
1769H	05994	426	0-15	1	Relay Logic States, Gate B, Relays 1-16			F34	R	
176AH	05995	427	0-15	1	Relay Logic States, Gate C, Relays 1-16			F34	R	
176BH	05996	428	0-15	1	Relay Logic States, Gate D, Relays 1-16			F34	R	
176CH	05997	429	0-15	1	Relay Logic States, Gate E, Relays 1-16			F34	R	
176DH	05998	430	0-15	1	Relay Logic States, Gate F, Relays 1-16			F34	R	
176EH	05999	431	0-15	1	Relay Logic States, Gate G, Relays 1-16			F34	R	
176FH	06000	432	0-1	30	Delay Timer, Relay 1 / Relay 2			F35	R	
1770H	06001	432	2-3	30	Delay Timer, Relay 3 / Relay 4			F35	R	
1771H	06002	432	4-5	30	Delay Timer, Relay 5 / Relay 6			F35	R	
1772H	06003	432	6-7	30	Delay Timer, Relay 7 / Relay 8			F35	R	
1773H	06004	432	8-9	30	Delay Timer, Relay 9 / Relay 10			F35	R	
1774H	06005	432	10-11	30	Delay Timer, Relay 11 / Relay 12			F35	R	
1775H	06006	432	12-13	30	Delay Timer, Relay 13 / Relay 14			F35	R	
1776H	06007	432	14-15	30	Delay Timer, Relay 15 / Relay 16			F35	R	
1777H	06008	433	0-15	1	Desired Relay States, Relays 1-16			F36	R	
1778H	06009	434	0-15	1	Relays Pending Updates, Relays 1-16			F37	R	
1779H	06010	435	0-15	1	Shadowed Relay States, Relays 1-16			F38	R	
177AH	06011	436	0-15	10	Confirmed Polled Relay States, Relays 1-16			F39	R	
177BH	06012	437	0-15	1	Valid Flags for Confirmed Relay States, Relays 1-16			F40	R	
177CH	06013	438	0-15	1	Locked Relays, Relays 1-16			F41	R	
177DH	06014	439	0-15	1	Locked Relay States, Relays 1-16			F42	R	
Reset Time Block										
177EH-1781H	06015-06018	440	0	50	Reset Time Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1782H-1785H	06019-06022	440	1	50	Reset Maximum Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
1786H-1789H	06023-06026	440	2	50	Reset Minimum Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
178AH-178DH	06027-06030	440	3	50	Reset Energy Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
178EH-1791H	06031-06034	440	4	50	Reserved			F3	R	1
1792H-1795H	06035-06038	440	5	50	Reset Pulse Accumulations/Aggregations Time Stamps	12/31/9999 23:59:59.99	10 msec	F3	R	1
Miscellaneous Flags										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1796H	06039	441	0-15	1	Current Time Stamp Status: MSB first, Bit[15-12] = Current Weekday, 0=Sunday, 6= Saturday Bit[11] = Not defined Bit[10] = Debugging 1 = Line Synch Frequency Valid) Bit[09] = IRIG-B Year Valid Bit[08] = Debugging, 1= IRIG-B Time Continue Forwarding) Bit[07] = Active IRIG-B Bit[06] = Active DST Bit[05] = Active Line Synch Bit[04] = Active Cold Load Bit[03] = DST Spring Date, it means current date/time is before DST period starting moment of current calendar year Bit[02] = DST Fall Date, it means current date/time is after DST period ending moment of current calendar year Bit[01] = Active SNTP Bit[00] = 1 = Battery low flag)			F51		
Test Mode										
1797H-179AH	06040-06043	442	0	50	Test Mode Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3		
179BH-179EH	06044-06047	443	0	50	Test Mode Start Time	12/31/9999 23:59:59.99	10 msec	F3		
179FH-17A2H	06048-06051	443	1	50	Test Mode Current Test Start Time	12/31/9999 23:59:59.99	10 msec	F3		
17A3H	06052	444	0	30	Test Mode Block Average Status / Rolling Average Status			F14		
17A4H-17A7H	06053-06056				Reserved					
17A8H-17AFH	06057-06060	446	0	20	Test Mode Total VAh (Q1234)	9999999999999999.99999999/- 9999999999999999.99999999 VAh	1/ 4294967296 Wh sec	F117	R	
17B0H-17B7H	06061-06064	446	1	20	Test Mode Received VARh (Q34)	9999999999999999.99999999/- 9999999999999999.99999999 VARh	1/ 4294967296 Wh sec	F117	R	
17B8H-17BFH	06065-06068	446	2	20	Test Mode Delivered VARh (Q12)	9999999999999999.99999999/- 9999999999999999.99999999 VARh	1/ 4294967296 Wh sec	F117	R	
17C0H-17C7H	06069-06072	446	3	20	Test Mode Received Wh (Q14)	9999999999999999.99999999/- 9999999999999999.99999999 Wh	1/ 4294967296 Wh sec	F117	R	
17C8H-17CFH	06073-06076	446	4	20	Test Mode Delivered Wh (Q23)	9999999999999999.99999999/- 9999999999999999.99999999 Wh	1/ 4294967296 Wh sec	F117	R	
KYZ Output Accumulation Block										
17D0H-17D3H	06097-06100	447	0		KYZ Output Accumulation Block Time Stamp	12/31/9999 23:59:59.99		F3		
17D4H-17D5H	06101-06102	448	0	20	KYZ Output Accumulation #1, Test Pulse 1 LED	4,294,967,295 / 0		F18	R	
17D6H-17D7H	06103-06104	448	1	20	KYZ Output Accumulation #2, Test Pulse 2 LED	4,294,967,295 / 0		F18	R	
17D8H-17D9H	06105-06106	448	2	20	KYZ Output Accumulation #3, Pulse Output 1 LED / Relay 1	4,294,967,295 / 0		F18	R	
17DAH-17DBH	06107-06108	448	3	20	KYZ Output Accumulation #4, Pulse Output 2 LED / Relay 2	4,294,967,295 / 0		F18	R	
17DCH-17DDH	06109-06110	448	4	20	Reserved	4,294,967,295 / 0		F18	R	
Input Option Board Data Statusr Block										
17DEH	06111	449	0-3	1	MSB first, Bit[15] = 1st DIO module status valid Bit[14] = 2nd DIO module status valid Bit[13] = 3rd DIO module status valid Bit[12] = 4th DIO module status valid			F44	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
17DFH	06112	450	0-15	1	MSB first, Bit[15] = 1st AIN module AI chn 01 valid Bit[14] = 1st AIN module AI chn 02 valid Bit[13] = 1st AIN module AI chn 03 valid Bit[12] = 1st AIN module AI chn 04 valid Bit[11] = 1st AIN module AI chn 05 valid Bit[10] = 1st AIN module AI chn 06 valid Bit[09] = 1st AIN module AI chn 07 valid Bit[08] = 1st AIN module AI chn 08 valid Bit[07] = 2nd AIN module AI chn 09 valid Bit[06] = 2nd AIN module AI chn 10 valid Bit[05] = 2nd AIN module AI chn 11 valid Bit[04] = 2nd AIN module AI chn 12 valid Bit[03] = 2nd AIN module AI chn 13 valid Bit[02] = 2nd AIN module AI chn 14 valid Bit[01] = 2nd AIN module AI chn 15 valid Bit[00] = 2nd AIN module AI chn 16 valid			F45	R	
17E0H	06113	450	16-31	1	MSB first, Bit[15] = 3rd AIN module AI chn 01 valid Bit[14] = 3rd AIN module AI chn 02 valid Bit[13] = 3rd AIN module AI chn 03 valid Bit[12] = 3rd AIN module AI chn 04 valid Bit[11] = 3rd AIN module AI chn 05 valid Bit[10] = 3rd AIN module AI chn 06 valid Bit[09] = 3rd AIN module AI chn 07 valid Bit[08] = 3rd AIN module AI chn 08 valid Bit[07] = 4th AIN module AI chn 09 valid Bit[06] = 4th AIN module AI chn 10 valid Bit[05] = 4th AIN module AI chn 11 valid Bit[04] = 4th AIN module AI chn 12 valid Bit[03] = 4th AIN module AI chn 13 valid Bit[02] = 4th AIN module AI chn 14 valid Bit[01] = 4th AIN module AI chn 15 valid Bit[00] = 4th AIN module AI chn 16 valid			F45	R	
Flicker Status Block										
17E1H-17E4H	06114-06117	451	0	50	Flicker Status Block Time Stamp	12/31/9999 23:59:59.99		F3		
17EDH	06126	453	0	30	Flicker Status: value = 0000 means not available or stopped				R	
Instantaneous Flicker Block										
17EEH-17F1H	06127-06130	454	0	50	Instantaneous Flicker Block Time	12/31/9999 23:59:59.99		F3		
17F2H-17F3H	06131-06132	455	0	30	Instantaneous Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
17F4H-17F5H	06133-06134	455	1	30	Instantaneous Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
17F6H-17F7H	06135-06136	455	2	30	Instantaneous Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
Short Term Flicker Block										
17F8H-17FBH	06137-06140	456	0	50	Short Term Flicker Block Time	12/31/9999 23:59:59.99		F3		
17FCH-17FDH	06141-06142	457	0	30	Short Term Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
17FEH-17FFH	06143-06144	457	1	30	Short Term Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
1800H-1801H	06145-06146	457	2	30	Short Term Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
1802H-1803H	06147-06148	458	0	30	Maximum Short Term Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
1804H-1805H	06149-06150	458	1	30	Maximum Short Term Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
1806H-1807H	06151-06152	458	2	30	Maximum Short Term Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
1808H-1809H	06153-06154	459	0	30	Minimum Short Term Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
180AH-180BH	06155-06156	459	1	30	Minimum Short Term Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
180CH-180DH	06157-06158	459	2	30	Minimum Short Term Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
180EH-1811H	06159-06162	460	0	50	Short Term Flicker Interval End Time Stamp	12/31/9999 23:59:59.99		F3		
1812H-1815H	06163-06166	461	0	50	Maximum Short Term Flicker V_{AN} Time Stamp	12/31/9999 23:59:59.99		F3		
1816H-1819H	06167-06170	461	1	50	Maximum Short Term Flicker V_{BN} Time Stamp	12/31/9999 23:59:59.99		F3		
181AH-181DH	06171-06174	461	2	50	Maximum Short Term Flicker V_{CN} Time Stamp	12/31/9999 23:59:59.99		F3		
181EH-1821H	06175-06178	462	0	50	Minimum Short Term Flicker V_{AN} Time Stamp	12/31/9999 23:59:59.99		F3		
1822H-1825H	06179-06182	462	1	50	Minimum Short Term Flicker V_{BN} Time Stamp	12/31/9999 23:59:59.99		F3		

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1826H-1829H	06183-06186	462	2	50	Minimum Short Term Flicker V_{CN} Time Stamp	12/31/9999 23:59:59.99		F3		
Long Term Flicker Block										
182AH-182DH	06187-06190	463	0	50	Long Term Flicker Block Time	12/31/9999 23:59:59.99		F3		
182EH-182FH	06191-06192	464	0	30	Long Term Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
1830H-1831H	06193-06194	464	1	30	Long Term Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
1832H-1833H	06195-06196	464	2	30	Long Term Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
1834H-1835H	06197-06198	465	0	30	Maximum Long Term Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
1836H-1837H	06199-06200	465	1	30	Maximum Long Term Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
1838H-1839H	06201-06202	465	2	30	Maximum Long Term Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
183AH-183BH	06203-06204	466	0	30	Minimum Long Term Flicker V_{AN}	+32767 / 0	1/ 65536	F7	R	
183CH-183DH	06205-06206	466	1	30	Minimum Long Term Flicker V_{BN}	+32767 / 0	1/ 65536	F7	R	
183EH-183FH	06207-06208	466	2	30	Minimum Long Term Flicker V_{CN}	+32767 / 0	1/ 65536	F7	R	
1840H-1843H	06209-06212	467	0	50	Long Term Flicker Interval End Time Stamp	12/31/9999 23:59:59.99		F3		
1844H-1847H	06213-06216	468	0	50	Maximum Long Term Flicker V_{AN} Time Stamp	12/31/9999 23:59:59.99		F3		
1848H-184BH	06217-06220	468	1	50	Maximum Long Term Flicker V_{BN} Time Stamp	12/31/9999 23:59:59.99		F3		
184CH-184FH	06221-06224	468	2	50	Maximum Long Term Flicker V_{CN} Time Stamp	12/31/9999 23:59:59.99		F3		
1850H-1853H	06225-06228	469	0	50	Minimum Long Term Flicker V_{AN} Time Stamp	12/31/9999 23:59:59.99		F3		
1854H-1857H	06229-06232	469	1	50	Minimum Long Term Flicker V_{BN} Time Stamp	12/31/9999 23:59:59.99		F3		
1858H-185BH	06233-06236	469	2	50	Minimum Long Term Flicker V_{CN} Time Stamp	12/31/9999 23:59:59.99		F3		
Additional Energy Block										
185CH-185FH	06237-06240	470	0	50	Additional Energy Block Time	12/31/9999 23:59:59.99		F3		
1890H-18ABH	06289-06316				Reserved				R	
18ACH-18AFH	06317-06320	475	0	20	Quadrant 1 Watthour, Secondary	+9,999,999,999,999,999 WH / 0 WH	1 W_H	F12	R	
18B0H-18B3H	06321-06324	475	1	20	Quadrant 4 Watthour, Secondary	+9,999,999,999,999,999 WH / 0 WH	1 W_H	F12	R	
18B4H-18B7H	06325-06328	475	2	20	Quadrant 2 Watthour, Secondary	+9,999,999,999,999,999 WH / 0 WH	1 W_H	F12	R	
18B8H-18BBH	06329-06332	475	3	20	Quadrant 3 Watthour, Secondary	+9,999,999,999,999,999 WH / 0 WH	1 W_H	F12	R	
18BCH-18BFH	06333-06336	476	0	20	Quadrant 1 VAhour, Secondary	+9,999,999,999,999,999 VAh / 0 VAh	1 VA_H	F12	R	
18C0H-18C3H	06337-06340	476	1	20	Quadrant 1 VARhour, Secondary	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR_H	F12	R	
18C4H-18C7H	06341-06344	476	2	20	Quadrant 4 VAhour, Secondary	+9,999,999,999,999,999 VAh / 0 VAh	1 VA_H	F12	R	
18C8H-18CBH	06345-06348	476	3	20	Quadrant 4 VARhour, Secondary	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR_H	F12	R	
18CCH-18CFH	06349-06352	476	4	20	Quadrant 2 VAhour, Secondary	+9,999,999,999,999,999 VAh / 0 VAh	1 VA_H	F12	R	
18D0H-18D3H	06353-06356	476	5	20	Quadrant 2 VARhour, Secondary	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR_H	F12	R	
18D4H-18D7H	06357-06360	476	6	20	Quadrant 3 VAhour, Secondary	+9,999,999,999,999,999 VAh / 0 VAh	1 VA_H	F12	R	
18D8H-18DBH	06361-06364	476	7	20	Quadrant 3 VARhour, Secondary	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR_H	F12	R	
18DCH-18F7H	06365-06392				Reserved				R	
Energy and Pulses in the Interval										
18F8H-18FBH	06393-06396	479	0	50	Energy and Pulses in the Interval Block Time Stamp	12/31/9999 23:59:59.99		F3		
18FCH	06397	480	0	30	Total VAhour (Quadrants 1+2+3+4) in the Interval, Secondary	65,535 / 0	1 VA_H	F57	R	
18FDH	06398	480	1	30	Positive VARhour (Quadrants 1+2) in the Interval, Secondary	65,535 / 0	1 VAR_H	F57	R	
18FEH	06399	480	2	30	Negative VARhour (Quadrants 3+4) in the Interval, Secondary	65,535 / 0	1 VAR_H	F57	R	
18FFH	06400	480	3	30	Positive Watthour (Quadrants 1+4) in the Interval, Secondary	65,535 / 0	1 W_H	F57	R	
1900H	06401	480	4	30	Negative Watthour (Quadrants 2+3) in the Interval, Secondary	65,535 / 0	1 W_H	F57	R	
1901H-1920H	06402-06433				Reserved				R	
1921H-1922H	06434-06435	483	0	30	Pulse Accumulation, Internal Input 1 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1923H-1924H	06436-06437	483	1	30	Pulse Accumulation, Internal Input 2 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1925H-1926H	06438-06439	483	2	30	Pulse Accumulation, Internal Input 3 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1927H-1928H	06440-06441	483	3	30	Pulse Accumulation, Internal Input 4 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1929H-192AH	06442-06443	483	4	30	Pulse Accumulation, Internal Input 5 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
192BH-192CH	06444-06445	483	5	30	Pulse Accumulation, Internal Input 6 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
192DH-192EH	06446-06447	483	6	30	Pulse Accumulation, Internal Input 7 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
192FH-1930H	06448-06449	483	7	30	Pulse Accumulation, Internal Input 8 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1931H-1932H	06450-06451	484	0	30	Pulse Aggregation 1 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1933H-1934H	06452-06453	484	1	30	Pulse Aggregation 2 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1935H-1936H	06454-06455	484	2	30	Pulse Aggregation 3 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1937H-1938H	06456-06457	484	3	30	Pulse Aggregation 4 in the Interval, Scaled	4,294,967,295 / 0	1 Unit	F18	R	
1939H	06458	485	0	30	Quadrant 1 Watthour in the Interval, Secondary	65,535 / 0	1 Wh _H	F57	R	
193AH	06459	485	1	30	Quadrant 4 Watthour in the Interval, Secondary	65,535 / 0	1 Wh _H	F57	R	
193BH	06460	485	2	30	Quadrant 2 Watthour in the Interval, Secondary	65,535 / 0	1 Wh _H	F57	R	
193CH	06461	485	3	30	Quadrant 3 Watthour in the Interval, Secondary	65,535 / 0	1 Wh _H	F57	R	
193DH	06462	486	0	30	Quadrant 1 VAhour in the Interval, Secondary	65,535 / 0	1 VA _H	F57	R	
193EH	06463	486	1	30	Quadrant 1 VARhour in the Interval, Secondary	65,535 / 0	1 VAR _H	F57	R	
193FH	06464	486	2	30	Quadrant 4 VAhour in the Interval, Secondary	65,535 / 0	1 VA _H	F57	R	
1940H	06465	486	3	30	Quadrant 4 VARhour in the Interval, Secondary	65,535 / 0	1 VAR _H	F57	R	
1941H	06466	486	4	30	Quadrant 2 VAhour in the Interval, Secondary	65,535 / 0	1 VA _H	F57	R	
1942H	06467	486	5	30	Quadrant 2 VARhour in the Interval, Secondary	65,535 / 0	1 VAR _H	F57	R	
1943H	06468	486	6	30	Quadrant 3 VAhour in the Interval, Secondary	65,535 / 0	1 VA _H	F57	R	
1944H	06469	486	7	30	Quadrant 3 VARhour in the Interval, Secondary	65,535 / 0	1 VAR _H	F57	R	
1945H-1952H	06470-06483				Reserved				R	
1953H	06484	489	0	30	KYZ Pulse Output in the Interval, Relay 1 - Pulse 1	65,535 / 0	1 pulse	F57	R	
1954H	06485	489	1	30	KYZ Pulse Output in the Interval, Relay 2 - Pulse 2	65,535 / 0	1 pulse	F57	R	
1955H	06486	489	2	30	KYZ Pulse Output in the Interval, Relay 3	65,535 / 0	1 pulse	F57	R	
1956H	06487	489	3	30	KYZ Pulse Output in the Interval, Relay 4	65,535 / 0	1 pulse	F57	R	
1957H	06488	489	4	30	et_gain_switch (0000 for low range, 1111 for high range, others for auto range)	65,535 / 0			R/W	Debug and production only
Flicker Countdown Block										
1958H	06489	490	0	30	Short Term Flicker Countdown	65,535 / 0	1 second	F56	R	
1959H	06490	490	1	30	Long Term Flicker Countdown	65,535 / 0	1 second	F56	R	
Cumulative Demand Block										
195AH-195DH	06491-06494	491	0	50	Cumulative Demand Block Time Stamp	12/31/9999 23:59:99		F3	R	
195EH-195FH	06495-06496	492	0	30	Positive Watt (Quadrants 1+4) Cumulative Demand	4,294,967,295 / 0		F18	R	
1960H-1961H	06497-06498	492	1	30	Negative Watt (Quadrants 2+3) Cumulative Demand	4,294,967,295 / 0		F18	R	
1962H-1963H	06499-06500	493	0	30	Positive Watt (Quadrants 1+4) Continuous Cumulative Demand	4,294,967,295 / 0		F18	R	
1964H-1965H	06501-06502	493	1	30	Negative Watt (Quadrants 2+3) Continuous Cumulative Demand	4,294,967,295 / 0		F18	R	
Uncompensated and Q Block										
1A08H-1A09H	06665-06666	500	0	30	Uncompensated One second Phase A VA	+32767 VA / 0 VA	1/65536 VA sec	F7		
1A0AH-1A0BH	06667-06678	500	1	30	Uncompensated One second Phase B VA	+32767 VA / 0 VA	1/65536 VA sec	F7		
1A0CH-1A0DH	06669-06670	500	2	30	Uncompensated One second Phase C VA	+32767 VA / 0 VA	1/65536 VA sec	F7		
1A0EH-1A0FH	06671-06672	501	0	30	Uncompensated One second VA	+32767 VA / 0 VA	1/65536 VA sec	F7		
1A10H-1A11H	06673-06674	502	0	30	Uncompensated One second Phase A VAR	+32767 VAR / - 32768 VAR	1/65536 VAR sec	F7		
1A12H-1A13H	06675-06676	502	1	30	Uncompensated One second Phase B VAR	+32767 VAR / - 32768 VAR	1/65536 VAR sec	F7		
1A14H-1A15H	06677-06678	502	2	30	Uncompensated One second Phase C VAR	+32767 VAR / - 32768 VAR	1/65536 VAR sec	F7		
1A16H-1A17H	06679-06680	503	0	30	Uncompensated One second VAR	+32767 VAR / - 32768 VAR	1/65536 VAR sec	F7		
1A18H-1A19H	06681-06682	504	0	30	Uncompensated One second Phase A W	+32767 W / - 32768 W	1/65536 W sec	F7		
1A1AH-1A1BH	06683-06684	504	1	30	Uncompensated One second Phase B W	+32767 W / - 32768 W	1/65536 W sec	F7		
1A1CH-1A1DH	06685-06686	504	2	30	Uncompensated One second Phase C W	+32767 W / - 32768 W	1/65536 W sec	F7		
1A1EH-1A1FH	06687-06688	505	0	30	Uncompensated One second W	+32767 W / - 32768 W	1/65536 W sec	F7		
1A20H-1A23H	06689-06692	506	0	20	Uncompensated VAh, secondary BCD	9,999,999,999,999 VAh / 0 VAh	1 VAh	F11		
1A24H-1A27H	06693-06706	506	1	20	Uncompensated + VARh, secondary BCD	9,999,999,999,999 VARh / 0 VARh	1 VARh	F11		
1A28H-1A2BH	06697-06700	506	2	20	Uncompensated - VARh, secondary BCD	9,999,999,999,999 VARh / 0 VARh	1 VARh	F11		
1A2CH-1A2FH	06701-06704	506	3	20	Uncompensated + Wh, secondary BCD	9,999,999,999,999 Wh / 0 Wh	1 Wh	F11		

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1A30H-1A33H	06705-06708	506	4	20	Uncompensated - Wh, secondary BCD	9,999,999,999,999,999 Wh / 0 Wh	1 Wh	F11		
1A34H-1A37H	06709-06712	507	0	20	Uncompensated VAh, secondary, binary	9,999,999,999,999,999 / 0	1 VAh	F12		
1A38H-1A3BH	06713-06716	507	1	20	Uncompensated +VARh, secondary, binary	9,999,999,999,999,999 / 0	1 VARh	F12		
1A3CH-1A3FH	06717-06720	507	2	20	Uncompensated -VARh, secondary, binary	9,999,999,999,999,999 / 0	1 VARh	F12		
1A40H-1A43H	06721-06724	507	3	20	Uncompensated +Wh, secondary, binary	9,999,999,999,999,999 / 0	1 Wh	F12		
1A44H-1A47H	06725-06728	507	4	20	Uncompensated -Wh, secondary, binary	9,999,999,999,999,999 / 0	1 Wh	F12		
1A48H-1A6FH	06729-06768				Reserved	9,999,999,999,999,999 / 0	1	F12		
1A70H	06769	510	0	30	Uncompensated VAh in the Interval, secondary	65,535 / 0	1	F47		
1A71H	06770	510	1	30	Uncompensated +VARh in the Interval, secondary	65,535 / 0	1	F47		
1A72H	06771	510	2	30	Uncompensated -VARh in the Interval, secondary	65,535 / 0	1	F47		
1A73H	06772	510	3	30	Uncompensated +Wh in the Interval, secondary	65,535 / 0	1	F47		
1A74H	06773	510	4	30	Uncompensated -Wh in the Interval, secondary	65,535 / 0	1	F47		
					Reserved					
1A81H-1A82H	06784-06785	512	0	30	One second Phase A Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A83H-1A84H	06786-06787	512	1	30	One second Phase B Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A85H-1A86H	06788-06789	512	2	30	One second Phase C Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A87H-1A88H	06790-06791	513	0	30	One second Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A89H-1A8AH	06792-06793	514	0	30	Thermal Average Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A8BH-1A8CH	06794-06795	515	0	30	Maximum Thermal Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A8DH-1A8EH	06796-06797	515	1	30	Maximum Thermal Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A8FH-1A90H	06798-06799	516	0	30	Minimum Thermal Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A91H-1A92H	06800-06801	516	1	30	Minimum Thermal Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1A93H-1A96H	06802-06805	517	0	50	Maximum Thermal Average + Q Time Stamps	12/31/9999 23:59:59.99		F3		
1A97H-1A9AH	06806-06809	517	1	50	Maximum Thermal Average - Q Time Stamps	12/31/9999 23:59:59.99		F3		
1A9BH-1A9EH	06810-06813	518	0	50	Minimum Thermal Average + Q Time Stamps	12/31/9999 23:59:59.99		F3		
1A9FH-1AA2H	06814-06817	518	1	50	Minimum Thermal Average - Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AA3H-1AA6H	06818-06821	519	0-1	20	+ Qh, secondary BCD	9,999,999,999,999,999 Qh / 0 Qh	1 Qh	F11		
1AA7H-1AAAH	06822-06825	519	0-1	20	- Qh, secondary BCD	9,999,999,999,999,999 Qh / 0 Qh	1 Qh	F11		
1AABH-1AAEH	06826-06829	520	0	20	+ Qh, secondary binary	9,999,999,999,999,999 Qh / 0 Qh	1 Qh	F12		
1AAFH-1AB2H	06830-06833	520	1	20	- Qh, secondary binary	9,999,999,999,999,999 Qh / 0 Qh	1 Qh	F12		
1AB3H-1AC0H	06834-06849				Reserved					
1AC1H	06850	523	0	30	+ Qh in the Interval, secondary	65,535 / 0	1	F47		
1AC2H	06851	523	1	30	- Qh in the Interval, secondary	65,535 / 0	1	F47		
1AC3H-1AC6H	06852-06855				Reserved					
1AD7H-1AC8H	06856-06857	525	0	30	Block Window Average Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AC9H-1ACAH	06858-06859	526	0	30	Maximum Block Window Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1ACBH-1ACCCH	06860-06861	526	1	30	Maximum Block Window Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1ACDH-1ACEH	06862-06863	527	0	30	Minimum Block Window Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1ACFH-1AD0H	06864-06865	527	1	30	Minimum Block Window Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AD1H-1AD4H	06866-06869	528	0	50	Maximum Block Window Average + Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AD5H-1AD8H	06870-06873	528	1	50	Maximum Block Window Average - Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AD9H-1ADCCH	06874-06877	529	0	50	Minimum Block Window Average + Q Time Stamps	12/31/9999 23:59:59.99		F3		
1ADDH-1AE0H	06878-06881	529	1	50	Minimum Block Window Average - Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AE1H-1AE2H	06882-06883	530	0	30	Rolling Window Average Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AE3H-1AE4H	06884-06885	531	0	30	Maximum Rolling Window Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AE5H-1AE6H	06886-06887	531	1	30	Maximum Rolling Window Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AE7H-1AE8H	06888-06889	532	0	30	Minimum Rolling Window Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AE9H-1AEA	06890-06891	532	1	30	Minimum Rolling Window Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
1AEBH-1AEEH	06892-06895	533	0	50	Maximum Rolling Window Average + Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AEFH-1AF2H	06896-06899	533	1	50	Maximum Rolling Window Average - Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AF3H-1AF6H	06900-06903	534	0	50	Minimum Rolling Window Average + Q Time Stamps	12/31/9999 23:59:59.99		F3		
1AF7H-1AFAH	06904-06907	534	1	50	Minimum Rolling Window Average - Q Time Stamps	12/31/9999 23:59:59.99		F3		
Scaled Energy Block										
1AFBH-1AFEH	06908-06911	535	0	50	Scaled Energy Block Timestamp	12/31/9999 23:59:59.99		F3		

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1AFFH-1B00H	06912-06913	536	0	20	Total VAh (Quadrant 1+2+3+4) Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B01H-1B02H	06914-06915	536	1	20	Positive VARh (Quadrant 1+2) Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B03H-1B04H	06916-06917	536	2	20	Negative VARh (Quadrant 3+4) Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B05H-1B06H	06918-06919	537	0	20	Positive Wh (Quadrant 1+4) Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B07H-1B08H	06920-06921	537	1	20	Quadrant 1 VAh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B09H-1B0AH	06922-06923	537	2	20	Quadrant 1 VARh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B0BH-1B0CH	06924-06925	537	3	20	Quadrant 4 VAh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B0DH-1B0EH	06926-06927	537	4	20	Quadrant 4 VARh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B0FH-1B10H	06928-06929	537	5	20	Negative Wh (Quadrant 2+3) Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B11H-1B12H	06930-06931	537	6	20	Quadrant 2 VAh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B13H-1B14H	06932-06933	537	7	20	Quadrant 2 VARh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B15H-1B16H	06934-06935	537	8	20	Quadrant 3 VAh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B17H-1B18H	06936-06937	537	9	20	Quadrant 3 VARh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B19H-1B1AH	06938-06939	538	0	20	I2t Phase A Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B1BH-1B1CH	06940-06941	538	1	20	I2t Phase B Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B1DH-1B1EH	06942-06943	538	2	20	I2t Phase C Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B1FH-1B20H	06944-06945	538	3	20	V2t Phase A Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B21H-1B22H	06946-06947	538	4	20	V2t Phase B Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B23H-1B24H	06948-06949	538	5	20	V2t Phase C Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B25H-1B26H	06950-06951	539	0	20	Quadrant 1 Wh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B27H-1B28H	06952-06953	539	1	20	Quadrant 4 Wh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B29H-1B2AH	06954-06955	539	2	20	Quadrant 2 Wh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B2BH-1B2CH	06956-06957	539	3	20	Quadrant 3 Wh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B2DH-1B2EH	06958-06959	450	0	20	Uncompensated Total VAh, Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B2FH-1B30H	06960-06961	540	1	20	Uncompensated + VARh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B31H-1B32H	06962-06963	540	2	20	Uncompensated - VARh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B33H-1B34H	06964-06965	540	3	20	Uncompensated + Wh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B35H-1B36H	06966-06967	540	4	20	Uncompensated - Wh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B37H-1B38H	06968-06969	541	0	20	+ Qh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B39H-1B3AH	06970-06971	541	1	20	- Qh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
Test Mode Demand										
1B3BH-1B3CH	06972-06973	542	0	20	Test Mode Block Window Average VA	+32767.9999 VA / 0 VA	1/ 65536 VA sec	F7	R	
1B3DH-1B3EH	06974-06975	542	1	20	Test Mode Block Window Average +VAR	+32767.9999 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1B3FH-1B40H	06976-06977	542	2	20	Test Mode Block Window Average -VAR	0 VAR / -32767.9999 VAR	1/ 65536 VAR sec	F7	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1B41H-1B42H	06978-06979	542	3	20	Test Mode Block Window Average +W	+32767.9999 W / 0 W	1/ 65536 W sec	F7	R	
1B43H-1B44H	06980-06981	542	4	20	Test Mode Block Window Average -W	0 W / -32767.9999 W	1/ 65536 W sec	F7	R	
Scaled Energy Block - Cont.										
1B4FH-1B50H	06992-06993	543	0	20	Pulse Accumulation Inputs 1, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B51H-1B52H	06994-06995	543	1	20	Pulse Accumulation Inputs 2, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B53H-1B54H	06996-06997	543	2	20	Pulse Accumulation Inputs 3, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B55H-1B56H	06998-06999	543	3	20	Pulse Accumulation Inputs 4, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B57H-1B58H	07000-07001	543	4	20	Pulse Accumulation Inputs 5, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B59H-1B5AH	07002-07003	543	5	20	Pulse Accumulation Inputs 6, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B5BH-1B5CH	07004-07005	543	6	20	Pulse Accumulation Inputs 7, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B5DH-1B5EH	07006-07007	543	7	20	Pulse Accumulation Inputs 8, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B5FH-1B60H	07008-07009	544	0	20	Pulse Aggregations 1, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B61H-1B62H	07010-07011	544	1	20	Pulse Aggregations 2, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B63H-1B64H	07012-07013	544	2	20	Pulse Aggregations 3, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1B65H-1B66H	07014-07015	544	3	20	Pulse Aggregations 4, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E41H-1E42H	07746-07747	583	0	30	Total VAh (Quadrant 1+2+3+4) in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E43H-1E44H	07748-07749	583	1	30	Positive VARh (Quadrant 1+2) in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E45H-1E46H	07750-07751	583	2	30	Negative VARh (Quadrant 3+4) in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E47H-1E48H	07752-07753	584	0	30	Positive Wh (Quadrant 1+4) in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E49H-1E4AH	07754-07755	584	1	30	Quadrant 1 VAh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E4BH-1E4CH	07756-07757	584	2	30	Quadrant 1 VARh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E4DH-1E4EH	07758-07759	584	3	30	Quadrant 4 VAh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E4FH-1E50H	07760-07761	584	4	30	Quadrant 4 VARh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E51H-1E52H	07762-07763	584	5	30	Negative Wh (Quadrant 2+3) in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E53H-1E54H	07764-07765	584	6	30	Quadrant 2 VAh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E55H-1E56H	07766-07767	584	7	30	Quadrant 2 VARh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E57H-1E58H	07768-07769	584	8	30	Quadrant 3 VAh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E59H-1E5AH	07770-07771	584	9	30	Quadrant 3 VARh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E5BH-1E5CH	07772-07773	585	0	30	I2t Phase A in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E5DH-1E5EH	07774-07775	585	1	30	I2t Phase B in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E5FH-1E60H	07776-07777	585	2	30	I2t Phase C in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E61H-1E62H	07778-07779	585	3	30	V2t Phase A in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E63H-1E64H	07780-07781	585	4	30	V2t Phase B in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E65H-1E66H	07782-07783	585	5	30	V2t Phase C in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1E67H-1E68H	07784-07785	586	0	30	Quadrant 1 Wh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E69H-1E6AH	07786-07787	586	1	30	Quadrant 4 Wh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E6BH-1E6CH	07788-07789	586	2	30	Quadrant 2 Wh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E6DH-1E6EH	07790-07791	586	3	30	Quadrant 3 Wh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E6FH-1E70H	07792-07793	587	0	30	Uncompensated Total VAh (Q 1+2+3+4) in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E71H-1E72H	07794-07795	587	1	30	Uncompensated + VARh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E73H-1E74H	07796-07797	587	2	30	Uncompensated - VARh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E75H-1E76H	07798-07799	587	3	30	Uncompensated + Wh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E77H-1E78H	07800-07801	587	4	30	Uncompensated - Wh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E79H-1E7AH	07802-07803	588	0	30	+ Qh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E7BH-1E7CH	07804-07805	588	1	30	- Qh in the Interval, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E7DH-1E7EH	07806-07807	589	0	30	Pulse Accumulation Inputs 1 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E7FH-1E80H	07808-07809	589	1	30	Pulse Accumulation Inputs 2 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E81H-1E82H	07810-07811	589	2	30	Pulse Accumulation Inputs 3 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E83H-1E84H	07812-07813	589	3	30	Pulse Accumulation Inputs 4 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E85H-1E86H	07814-07815	589	4	30	Pulse Accumulation Inputs 5 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E87H-1E88H	07816-07817	589	5	30	Pulse Accumulation Inputs 6 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E89H-1E8AH	07818-07819	589	6	30	Pulse Accumulation Inputs 7 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E8BH-1E8CH	07820-07821	589	7	30	Pulse Accumulation Inputs 8 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E8DH-1E8EH	07822-07823	590	0	30	Pulse Aggregations 1 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E8FH-1E90H	07824-07825	590	1	30	Pulse Aggregations 2 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E91H-1E92H	07826-07827	590	2	30	Pulse Aggregations 3 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
1E93H-1E94H	07828-07829	590	3	30	Pulse Aggregations 4 in the Interval, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
Total Average Power Factor Block										
1E95H-1E98H	07830-07833	591	0	50	Total Average Power Factor Block Timestamp	12/31/9999 23:59:59.99		F3	R	
1E99H	07834	592	0	30	Total Average Power Factor Q14	1.000 / 0	0.001 PF	F8	R	
1E9AH	07835	592	1	30	Total Average Power Factor Q23	1.000 / 0	0.001 PF	F8	R	
1E9BH	07836	593	0	30	Maximum Total Average Power Factor Q14	1.000 / 0	0.001 PF	F8	R	
1E9CH	07837	593	1	30	Maximum Total Average Power Factor Q23	1.000 / 0	0.001 PF	F8	R	
1E9DH	07838	594	0	30	Minimum Total Average Power Factor Q14	1.000 / 0	0.001 PF	F8	R	
1E9EH	07839	594	1	30	Minimum Total Average Power Factor Q23	1.000 / 0	0.001 PF	F8	R	
1E9FH-1EA2H	07840-07843	595	0	50	Maximum Total Average Power Factor Q14 Timestamp	12/31/9999 23:59:59.99		F3	R	
1EA3H-1EA6H	07844-07847	595	1	50	Maximum Total Average Power Factor Q23 Timestamp	12/31/9999 23:59:59.99		F3	R	
1EA7H-1EAAH	07848-07851	596	0	50	Minimum Total Average Power Factor Q14 Timestamp	12/31/9999 23:59:59.99		F3	R	
1EABH-1EAEH	07852-07855	596	1	50	Minimum Total Average Power Factor Q23 Timestamp	12/31/9999 23:59:59.99		F3	R	
1EAFH-1EB2H	07856-07859	597	0	50	Total Average Power Factor Reset Timestamp	12/31/9999 23:59:59.99		F3	R	
1EB3H-1EB6H	07860-07863				Reserved				R	
Negative Maximum Pulse Aggregation Average Block										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1EB7H-1EBAH	07864-07867	599	0	30	Negative Maximum Block Window Average Aggregation 1	0 /- 9,223,372,036,854,776,808	1 Unit	F62	R	
1EBBH-1EC6H	07868-07879	599	1-3	30	Negative Maximum Block Window Average Aggregation 2-4	0 /- 9,223,372,036,854,776,808	1 Unit	F62	R	
1EC7H-1ECAH	07880-07883	600	0		Negative Maximum Block Window Average Aggregation 1 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	
1ECBH-1ED6H	07884-07895	600	1-3		Negative Maximum Block Window Average Aggregation 2-4 Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	
New Demand Block(Either Block window average or Sliding Window Average)										
1EF7H-1EF8H	07928-07929	1227	0		VAQ1234	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	
1EF9H-1EFAH	07930-07931	1227	1		WQ14	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1EFBH-1EFCH	07932-07933	1227	2		WQ23	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1EFDH-1EFEH	07934-07935	1227	3		VARQ12	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1EFFH-1F00H	07936-07937	1227	4		VARQ34	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F01H-1F02H	07938-07939	1227	5		pQ	+32767 Q / 0 Q	1/ 65536 Q sec	F7	R	
1F03H-1F04H	07940-07941	1227	6		nQ	+32767 Q / 0 Q	1/ 65536 Q sec	F7	R	
1F05H-1F06H	07942-07943	1227	7		WQ1	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1F07H-1F08H	07944-07945	1227	8		WQ2	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1F09H-1F0AH	07946-07947	1227	9		WQ3	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1F0BH-1F0CH	07948-07949	1227	10		WQ4	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1F0DH-1F0EH	07950-07951	1227	11		VARQ1	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F0FH-1F10H	07952-07953	1227	12		VARQ2	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F11H-1F12H	07954-07955	1227	13		VARQ3	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F13H-1F14H	07956-07957	1227	14		VARQ4	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F15H-1F16H	07958-07959	1227	15		VAQ1	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	
1F17H-1F18H	07960-07961	1227	16		VAQ2	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	
1F19H-1F1AH	07962-07963	1227	17		VAQ3	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	
1F1BH-1F1CH	07964-07965	1227	18		VAQ4	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	
1F1DH-1F1EH	07966-07967	1227	19		I2T Phase A	+32767 I2T / 0 I2T	1/ 65536 I2T sec	F7	R	
1F1FH-1F20H	07968-07969	1227	20		I2T Phase B	+32767 I2T / 0 I2T	1/ 65536 I2T sec	F7	R	
1F21H-1F22H	07970-07971	1227	21		I2T Phase C	+32767 I2T / 0 I2T	1/ 65536 I2T sec	F7	R	
1F23H-1F24H	07972-07973	1227	22		V2T Phase A	+32767 V2T / 0 V2T	1/ 65536 V2T sec	F7	R	
1F25H-1F26H	07974-07975	1227	23		V2T Phase B	+32767 V2T / 0 V2T	1/ 65536 V2T sec	F7	R	
1F27H-1F28H	07976-07977	1227	24		V2T Phase C	+32767 V2T / 0 V2T	1/ 65536 V2T sec	F7	R	
1F29H-1F2AH	07978-07979	1227	25		Uncompensated VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	
1F2BH-1F2CH	07980-07981	1227	26		Uncompensated +VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F2DH-1F2EH	07982-07983	1227	27		Uncompensated -VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	
1F2FH-1F30H	07984-07985	1227	28		Uncompensated +W	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1F31H-1F32H	07986-07987	1227	29		Uncompensated -W	+32767 W / 0 W	1/ 65536 W sec	F7	R	
1F33H-1F36H	07988-07991	1228	0		Internal Input 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F37H-1F3AH	07992-07995	1228	1		Internal Input 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F3BH-1F3EH	07996-07999	1228	2		Internal Input 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F3FH-1F42H	08000-08003	1228	3		Internal Input 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F43H-1F46H	08004-08007	1228	4		Internal Input 5	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F47H-1F4AH	08008-08011	1228	5		Internal Input 6	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F4BH-1F4EH	08012-08015	1228	6		Internal Input 7	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F4FH-1F52H	08016-08019	1228	7		Internal Input 8	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F53H-1F56H	08020-08023	1229	0		Aggregation 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F57H-1F5AH	08024-08027	1229	1		Aggregation 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F5BH-1F5EH	08028-08031	1229	2		Aggregation 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
1F5FH-1F62H	08032-08035	1229	3		Aggregation 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
1F63H	8036	1230	0		PF	-1.0 / 1.0	0.001 PF	F103	R	
1F64H	8037	1230	1		+PF	0 / 1.0	0.001 PF	F103	R	
1F65H	8038	1230	2		-PF	0 / 1.0	0.001 PF	F103	R	
1F66H	8039	1231	0		Uncomp PF	-1.0 / 1.0	0.001 PF	F103	R	
1F67H-1F9DH	08040-08088				Reserved					
Master Device Data Block										
2100H-21FFH	08449-08704									
Power Quality Test (EN-50160/IEC61000-4-30) Dynamic Readings Block										
2200H-2203H	08705-08708	603	0		Dynamic Readings Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	
2204H-2205H	08709-08710	604	0		Sym Comp Voltage Magnitude 3 Sec - zero sequence	+32767 / -32768	1/65536 V	F7	R	
2206H-2207H	08711-08712	604	1		Sym Comp Voltage Magnitude 3 Sec - positive sequence	+32767 / -32768	1/65536 V	F7	R	
2208H-2209H	08713-08714	604	2		Sym Comp Voltage Magnitude 3 Sec - negative sequence	+32767 / -32768	1/65536 V	F7	R	
220AH	08715	605	0		Sym Comp Voltage Phase 3 Sec - zero sequence	+327.67 / -327.68	0.01 degree	F9	R	
220BH	08716	605	1		Sym Comp Voltage Phase 3 Sec - positive sequence	+327.67 / -327.68	0.01 degree	F9	R	
220CH	08717	605	2		Sym Comp Voltage Phase 3 Sec - negative sequence	+327.67 / -327.68	0.01 degree	F9	R	
220DH-220EH	08718-08719	606	0		10 sec Ave Freq	+32767Hz / 0Hz	1/65536Hz	F7	R	
2215H-2216H	08726-08727	608	0		Sym Comp Voltage Magnitude 10 Min - zero sequence	+32767 / -32768	1/65536 V	F7	R	
2217H-2218H	08728-08729	608	1		Sym Comp Voltage Magnitude 10 Min - positive sequence	+32767 / -32768	1/65536 V	F7	R	
2219H-221AH	08730-08731	608	2		Sym Comp Voltage Magnitude 10 Min - negative sequence	+32767 / -32768	1/65536 V	F7	R	
Total Demand Distortion (TDD)										
23D6H	09175	656	0		TDD Phase A-N / Phase A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
23D7H	09176	657	0		TDD Phase B-N / Phase B-C Voltage	+327.67% / -327.68%	0.01%	F10	R	
23D8H	09177	658	0		TDD Phase C-N / Phase C-A Voltage	+327.67% / -327.68%	0.01%	F10	R	
23D9H	09178	659	0		TDD Phaes A Current	+327.67% / -327.68%	0.01%	F10	R	
23DAH	09179	660	0		TDD Phaes B Current	+327.67% / -327.68%	0.01%	F10	R	
23DBH	09180	661	0		TDD Phase C Current	+327.67% / -327.68%	0.01%	F10	R	
23DCH	09181	662	0		Maximum TDD Phase A-N / Phase A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
23DDH	09182	662	1		Maximum TDD Phase B-N / Phase B-C Voltage	+327.67% / -327.68%	0.01%	F10	R	
23DEH	09183	662	2		Maximum TDD Phase C-N / Phase C-A Voltage	+327.67% / -327.68%	0.01%	F10	R	
23DFH	09184	663	0		Maximum TDD Phaes A Current	+327.67% / -327.68%	0.01%	F10	R	
23E0H	09185	663	1		Maximum TDD Phaes B Current	+327.67% / -327.68%	0.01%	F10	R	
23E1H	09186	663	2		Maximum TDD Phaes C Current	+327.67% / -327.68%	0.01%	F10	R	
23E2H	09187	664	0		Minimum TDD Phase A-N / Phase A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
23E3H	09188	664	1		Minimum TDD Phase B-N / Phase A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
23E4H	09189	664	2		Minimum TDD Phase C-N / Phase A-B Voltage	+327.67% / -327.68%	0.01%	F10	R	
23E5H	09190	665	0		Minimum TDD Phase A Current	+327.67% / -327.68%	0.01%	F10	R	
23E6H	09191	665	1		Minimum TDD Phase B Current	+327.67% / -327.68%	0.01%	F10	R	
23E7H	09192	665	2		Minimum TDD Phase C Current	+327.67% / -327.68%	0.01%	F10	R	
23E8H-23EBH	09193-09196	666	0		Maximum TDD Phase A-N / Phase A-B Voltage Timestamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
23ECH-23EFH	09197-09200	666	1		Maximum TDD Phase B-N / Phase B-C Voltage Timestamp	12/31/9999 23:59:59.100	11 msec	F3	R	
23FOH-23F3H	09201-09204	666	2		Maximum TDD Phase C-N / Phase C-A Voltage Timestamp	12/31/9999 23:59:59.101	12 msec	F3	R	
23F4H-23F7H	09205-09208	666	3		Maximum TDD Phase A Current Timestamp	12/31/9999 23:59:59.102	13 msec	F3	R	
23F8H-23FBH	09209-09212	666	4		Maximum TDD Phase B Current Timestamp	12/31/9999 23:59:59.103	14 msec	F3	R	
23FCH-23FFH	09213-09216	666	5		Maximum TDD Phase C Current Timestamp	12/31/9999 23:59:59.104	15 msec	F3	R	
2400H-2403H	09217-09220	667	0		Minimum TDD Phase A-N / Phase A-B Voltage Timestamp	12/31/9999 23:59:59.105	16 msec	F3	R	1
2404H-2407H	09221-09224	667	1		Minimum TDD Phase B-N / Phase B-C Voltage Timestamp	12/31/9999 23:59:59.106	17 msec	F3	R	
2408H-240BH	09225-09228	667	2		Minimum TDD Phase C-N / Phase C-A Voltage Timestamp	12/31/9999 23:59:59.107	18 msec	F3	R	
240CH-240FH	09229-09232	667	3		Minimum TDD Phase A Current Timestamp	12/31/9999 23:59:59.108	19 msec	F3	R	
2410FH-2413H	09233-09236	667	4		Minimum TDD Phase A Current Timestamp	12/31/9999 23:59:59.109	20 msec	F3	R	
2414H-2417H	09237-09240	667	5		Minimum TDD Phase A Current Timestamp	12/31/9999 23:59:59.110	21 msec	F3	R	
Frozen Energy Block										
2C00H-2C03H	11265-11268	900	0		Frozen Energy Block Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	
Frozen Energy - Secondary Energy Readings										
2C04H-2C07H	11269-11272	901	0		VA hour (Quadrant 1+2+3+4), Secondary	+9,999,999,999,999,999 VAh / 0 VAh	1 VA _H	F12	R	
2C08H-2C0BH	11273-11276	901	1		VAR hour (Quadrant 1+2), Secondary	+9,999,999,999,999,999 VARh / 0 VARh	1 VAR _H	F12	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2C0CH-2C0FH	11277-11280	901	2		VAR hour (Quadrant 2+3), Secondary	0 VARh / -9,999,999,999,999 VARh	1 VAR _H	F12	R	
2C10H-2C13H	11281-11284	901	3		Watt hour (Quadrant 1+4), Secondary	+9,999,999,999,999 Wh / 0 Wh	1 W _H	F12	R	
2C14H-2C17H	11285-11288	901	4		Watt hour (Quadrant 2+3), Secondary	0 Wh / -9,999,999,999,999 Wh	1 W _H	F12	R	
2C18H-2C1BH	11289-11292	901	5		VA hour (Quadrant 1), Secondary	+9,999,999,999,999 VAh / 0 VAh	1 VA _H	F12	R	
2C1CH-2C1FH	11293-11296	901	6		VAR hour (Quadrant 1), Secondary	+9,999,999,999,999 VARh / 0 VARh	1 VAR _H	F12	R	
2C20H-2C23H	11297-11300	901	7		VA hour (Quadrant 4), Secondary	+9,999,999,999,999 VAh / 0 VAh	1 VA _H	F12	R	
2C2CH-2C27H	11301-11304	901	8		VAR hour (Quadrant 4), Secondary	+9,999,999,999,999 VARh / 0 VARh	1 VAR _H	F12	R	
2C28H-2C2BH	11305-11308	901	9		VA hour (Quadrant 2), Secondary	+9,999,999,999,999 VAh / 0 VAh	1 VA _H	F12	R	
2C2CH-2C2FH	11309-11312	901	10		VAR hour (Quadrant 2), Secondary	+9,999,999,999,999 VARh / 0 VARh	1 VAR _H	F12	R	
2C30H-2C33H	11313-11316	901	11		VA hour (Quadrant 3), Secondary	+9,999,999,999,999 VAh / 0 VAh	1 VA _H	F12	R	
2C34H-2C37H	11317-11320	901	12		VAR hour (Quadrant 3), Secondary	+9,999,999,999,999 VARh / 0 VARh	1 VAR _H	F12	R	
2C38H-2C3BH	11321-11324	901	13		I ² Phase A, Secondary	+9,999,999,999,999 I ² / 0	1 I ² _t	F12	R	
2C3CH-2C3FH	11325-11328	901	14		I ² Phase B, Secondary	+9,999,999,999,999 I ² / 0	1 I ² _t	F12	R	
2C40H-2C43H	11329-11332	901	15		I ² Phase C, Secondary	+9,999,999,999,999 I ² / 0	1 I ² _t	F12	R	
2C44H-2C47H	11333-11336	901	16		V ² Phase A, Secondary	+9,999,999,999,999 V ² / 0	1 V ² _t	F12	R	
2C48H-2C4BH	11337-11340	901	17		V ² Phase B, Secondary	+9,999,999,999,999 V ² / 0	1 V ² _t	F12	R	
2C4CH-2C4FH	11341-11344	901	18		V ² Phase C, Secondary	+9,999,999,999,999 V ² / 0	1 V ² _t	F12	R	
2C50H-2C53H	11345-11348	901	19		Watt hour (Quadrant 1), Secondary	+9,999,999,999,999 WH / 0 WH	1 W _H	F12	R	
2C54H-2C57H	11349-11352	901	20		Watt hour (Quadrant 4), Secondary	+9,999,999,999,999 WH / 0 WH	1 W _H	F12	R	
2C58H-2C5BH	11353-11356	901	21		Watt hour (Quadrant 2), Secondary	+9,999,999,999,999 WH / 0 WH	1 W _H	F12	R	
2C5CH-2C5FH	11357-11360	901	22		Watt hour (Quadrant 3), Secondary	+9,999,999,999,999 WH / 0 WH	1 W _H	F12	R	
2C60H-2C63H	11361-11364	901	23		VA hour (Quadrant 1+2+3+4), Uncompensated, Secondary	9,999,999,999,999 / 0	1	F12		
2C64H-2C67H	11365-11368	901	24		VAR hour (Quadrant 1+2), Uncompensated, Secondary	9,999,999,999,999 / 0	1	F12		
2C68H-2C6BH	11369-11372	901	25		VAR hour (Quadrant 3+4), Uncompensated, Secondary	9,999,999,999,999 / 0	1	F12		
2C6CH-2C6FH	11373-11376	901	26		Watt hour (Quadrant 1+4), Uncompensated, Secondary	9,999,999,999,999 / 0	1	F12		
2C70H-2C73H	11377-11380	901	27		Watt hour (Quadrant 2+3), Uncompensated, Secondary	9,999,999,999,999 / 0	1	F12		
2C74H-2C77H	11381-11384	901	28		Q hour, positive, Secondary	Qh	1 Qh	F12		
2C78H-2C7BH	11385-11388	901	29		Q hour, negative, Secondary	9,999,999,999,999 Qh / 0 Qh	1 Qh	F12		
Reserved Block										
2C7CH-2CF3H	11389-11566				Reserved				R	
Frozen Energy - Internal Input Pulse Accumulation Readings										
2CF4H-2CF7H	11509-11512	903	0		Pulse Accumulation Internal Input 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2CF8H-2CFBH	11513-11516	903	1		Pulse Accumulation Internal Input 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2CFCH-2CFFH	11517-11520	903	2		Pulse Accumulation Internal Input 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D00H-2D03H	11521-11524	903	3		Pulse Accumulation Internal Input 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2D04H-2D07H	11525-11528	903	4		Pulse Accumulation Internal Input 5	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D08H-2D0BH	11529-11532	903	5		Pulse Accumulation Internal Input 6	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D0CH-2D0FH	11533-11536	903	6		Pulse Accumulation Internal Input 7	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D10H-2D13H	11537-11540	903	7		Pulse Accumulation Internal Input 8	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D14H-2D17H	11541-11544	903	8		Pulse Accumulation Aggregation 1	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D18H-2D1BH	11545-11548	903	9		Pulse Accumulation Aggregation 2	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D1CH-2D1FH	11549-11552	903	10		Pulse Accumulation Aggregation 3	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
2D20H-2D23H	11553-11556	903	11		Pulse Accumulation Aggregation 4	+/- 9,223,372,036,854,776,808	1 Unit	F62	R	
Frozen Energy - KYZ Output Accumulation Readings										
2D24H-2D25H	11557-11558	904	0		KYZ Output Accumulation, Relay 1 - Pulse 1	4,294,967,295 / 0		F18	R	
2D26H-2D27H	11559-11560	904	1		KYZ Output Accumulation, Relay 2 - Pulse 2	4,294,967,295 / 0		F18	R	
2D28H-2D29H	11561-11562	904	2		KYZ Output Accumulation, Relay 3	4,294,967,295 / 0		F18	R	
2D2AH-2D2BH	11563-11564	904	3		KYZ Output Accumulation, Relay 4	4,294,967,295 / 0		F18	R	
2D2CH-2D2DH	11565-11566	904	4		Reserved	4,294,967,295 / 0		F18	R	
Frozen Energy - Scaled Energy Readings										
2D2EH-2D2FH	11567-11568	905	0		VA hour (Quadrant 1+2+3+4), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D30H-2D31H	11569-11570	905	1		VAR hour (Quadrant 1+2), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D32H-2D33H	11571-11572	905	2		VAR hour (Quadrant 2+3), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D34H-2D35H	11573-11574	905	3		Watt hour (Quadrant 1+4), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D36H-2D37H	11575-11576	905	4		VA hour (Quadrant 1), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D38H-2D39H	11577-11578	905	5		VAR hour (Quadrant 1), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D3AH-2D3BH	11579-11580	905	6		VA hour (Quadrant 4), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D3CH-2D3DH	11581-11582	905	7		VAR hour (Quadrant 4), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D3EH-2D3FH	11583-11584	905	8		Watt hour (Quadrant 2+3), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D40H-2D41H	11585-11586	905	9		VA hour (Quadrant 2), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D42H-2D43H	11587-11588	905	10		VAR hour (Quadrant 2), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D44H-2D45H	11589-11590	905	11		VA hour (Quadrant 3), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D46H-2D47H	11591-11592	905	12		VAR hour (Quadrant 3), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D48H-2D49H	11593-11594	905	13		I2t Phase A, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D4AH-2D4BH	11595-11596	905	14		I2t Phase B, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D4CH-2D4DH	11597-11598	905	15		I2t Phase C, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D4EH-2D4FH	11599-11600	905	16		V2t Phase A, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D50H-2D51H	11601-11602	905	17		V2t Phase B, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D52H-2D53H	11603-11604	905	18		V2t Phase C, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D54H-2D55H	11605-11606	905	19		Watt hour (Quadrant 1), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D56H-2D57H	11607-11608	905	20		Watt hour (Quadrant 4), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2D58H-2D59H	11609-11610	905	21		Watt hour (Quadrant 2), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D5AH-2D5BH	11611-11612	905	22		Watt hour (Quadrant 3), Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D5CH-2D5DH	11613-11614	905	23		VA hour (Quadrant 1+2+3+4), Uncompensated, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D5EH-2D5FH	11615-11616	905	24		VAR hour (Quadrant 1+2), Uncompensated, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D60H-2D61H	11617-11618	905	25		VAR hour (Quadrant 3+4), Uncompensated, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D62H-2D63H	11619-11620	905	26		Watt hour (Quadrant 1+4), Uncompensated, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D64H-2D65H	11621-11622	905	27		Watt hour (Quadrant 2+3), Uncompensated, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D66H-2D67H	11623-11624	905	28		Q hour, positive, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D68H-2D69H	11625-11626	905	29		Q hour, negative, Scaled Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
Frozen Energy - Scaled Internal Input Pulse Accumulation Readings										
2D6AH-2D6BH	11627-11628	906	0		Pulse Accumulation Inputs 1, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D6CH-2D6DH	11629-11630	906	1		Pulse Accumulation Inputs 2, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D6EH-2D6FH	11631-11632	906	2		Pulse Accumulation Inputs 3, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D70H-2D71H	11633-11634	906	3		Pulse Accumulation Inputs 4, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D72H-2D73H	11635-11636	906	4		Pulse Accumulation Inputs 5, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D74H-2D75H	11637-11638	906	5		Pulse Accumulation Inputs 6, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D76H-2D77H	11639-11640	906	6		Pulse Accumulation Inputs 7, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D78H-2D79H	11641-11642	906	7		Pulse Accumulation Inputs 8, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D7AH-2D7BH	11643-11644	906	8		Pulse Aggregations 1, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D7CH-2D7DH	11645-11646	906	9		Pulse Aggregations 2, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D7EH-2D7FH	11647-11648	906	10		Pulse Aggregations 3, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
2D80H-2D81H	11649-11650	906	11		Pulse Aggregations 4, Scaled	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁻⁷	F64		
Previous Block Window Average Block										
2D82H-2D83H	11651-11652	907	0	30	Previous Maximum Block Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
2D84H-2D85H	11653-11654	907	1	30	Previous Maximum Block Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2D86H-2D87H	11655-11656	907	2	30	Previous Maximum Block Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2D88H-2D89H	11657-11658	907	3	30	Previous Maximum Block Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2D8AH-2D8BH	11659-11660	907	4	30	Previous Maximum Block Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2D8CH-2D8DH	11661-11662	908	0	30	Previous Minimum Block Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
2D8EH-2D8FH	11663-11664	908	1	30	Previous Minimum Block Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2D90H-2D91H	11665-11666	908	2	30	Previous Minimum Block Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2D92H-2D93H	11667-11668	908	3	30	Previous Minimum Block Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2D94H-2D95H	11669-11670	908	4	30	Previous Minimum Block Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2D96H-2D97H	11671-11672	909	0	30	Coin. Block Window Average VAR for Previous Maximum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2D98H-2D99H	11673-11674	909	1	30	Coin. Block Window Average VAR for Previous Maximum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2D9AH-2D9BH	11675-11676	909	2	30	Coin. Block Window Average VAR for Previous Minimum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2D9CH-2D9DH	11677-11678	909	3	30	Coin. Block Window Average VAR for Previous Minimum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2D9EH-2DA1H	11679-11682	910	0	50	Previous Maximum Block Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DA2H-2DA5H	11683-11686	910	1	50	Previous Maximum Block Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DA6H-2DA9H	11687-11690	910	2	50	Previous Maximum Block Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DAAH-2DADH	11691-11694	910	3	50	Previous Maximum Block Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DAEH-2DBIH	11695-11698	910	4	50	Previous Maximum Block Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DB2H-2DB5H	11699-11702	911	0	50	Previous Minimum Block Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DB6H-2DB9H	11703-11706	911	1	50	Previous Minimum Block Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DBAH-2DBDH	11707-11710	911	2	50	Previous Minimum Block Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DBEH-2DC1H	11711-11714	911	3	50	Previous Minimum Block Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DC2H-2DC5H	11715-11718	911	4	50	Previous Minimum Block Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DC6H-2DC7H	11719-11720	912	0	30	Previous Maximum Block Window Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
2DC8H-2DC9H	11721-11722	912	1	30	Previous Maximum Block Window Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
2DCAH-2DCBH	11723-11724	913	0	30	Previous Minimum Block Window Average + Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
2DCH-2DCDH	11725-11726	913	1	30	Previous Minimum Block Window Average - Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
2DCEH-2DD1H	11727-11730	914	0	50	Previous Maximum Block Window + Q Time Stamps	12/31/9999 23:59:59.99		F3		
2DD2H-2DD5H	11731-11734	914	1	50	Previous Maximum Block Window - Q Time Stamps	12/31/9999 23:59:59.99		F3		
2DD6H-2DD9H	11735-11738	915	0	50	Previous Minimum Block Window + Q Time Stamps	12/31/9999 23:59:59.99		F3		
2DDAH-2DDDH	11739-11742	915	1	50	Previous Minimum Block Window - Q Time Stamps	12/31/9999 23:59:59.99		F3		
Previous Rolling Window Block										
2DDEH-2DDFH	11743-11744	916	0	30	Previous Maximum Rolling Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
2DE0H-2DE1H	11745-11746	916	1	30	Previous Maximum Rolling Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2DE2H-2DE3H	11747-11748	916	2	30	Previous Maximum Rolling Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2DE4H-2DE5H	11749-11750	916	3	30	Previous Maximum Rolling Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2DE6H-2DE7H	11751-11752	916	4	30	Previous Maximum Rolling Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2DE8H-2DE9H	11753-11754	917	0	30	Previous Minimum Rolling Window Average VA	+32767 VA / 0 VA	1/ 65536 VA sec	F7	R	9
2DEAH-2DEBH	11755-11756	917	1	30	Previous Minimum Rolling Window Average Positive VAR	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2DECH-2DEDH	11757-11758	917	2	30	Previous Minimum Rolling Window Average Negative VAR	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2DEEH-2DEFH	11759-11760	917	3	30	Previous Minimum Rolling Window Average Positive Watt	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2DF0H-2DF1H	11761-11762	917	4	30	Previous Minimum Rolling Window Average Negative Watt	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2DF2H-2DF3H	11763-11764	918	0	30	Coin. Rolling Window Average VAR for Previous Maximum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2DF4H-2DF5H	11765-11766	918	1	30	Coin. Rolling Window Average VAR for Previous Maximum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2DF6H-2DF7H	11767-11768	918	2	30	Coin. Rolling Window Average VAR for Previous Minimum Positive Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2DF8H-2DF9H	11769-11770	918	3	30	Coin. Rolling Window Average VAR for Previous Minimum Negative Watt	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2DFAH-2DFDH	11771-11774	919	0		Previous Maximum Rolling Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2DFEH-2E01H	11775-11778	919	1		Previous Maximum Rolling Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E02H-2E05H	11779-11782	919	2		Previous Maximum Rolling Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E06H-2E09H	11783-11786	919	3		Previous Maximum Rolling Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E0AH-2E0DH	11787-11790	919	4		Previous Maximum Rolling Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E0EH-2E11H	11791-11794	920	0		Previous Minimum Rolling Window Average VA Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E12H-2E15H	11795-11798	920	1		Previous Minimum Rolling Window Average Positive VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E16H-2E19H	11799-11802	920	2		Previous Minimum Rolling Window Average Negative VAR Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E1AH-2E1DH	11803-11806	920	3		Previous Minimum Rolling Window Average Positive Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1
2E1EH-2E21H	11807-11810	920	4		Previous Minimum Rolling Window Average Negative Watt Time Stamp	12/31/9999 23:59:59.99	10 msec	F3	R	1

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2E22H-2E25H	11811-11814	921	0-1		Previous Maximum Rolling Window Average +/- Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
2E26H-2E29H	11815-11818	922	0-1		Previous Minimum Rolling Window Average +/- Q	+32767 Q / -32768 Q	1/65536 Q sec	F7		
2E2AH-2E31H	11819-11826	923	0-1		Previous Maximum Rolling Window Average +/- Q Time Stamps	12/31/9999 23:59:59.99		F3		
2E32H-2E39H	11827-11834	924	0-1		Previous Minimum Rolling Window Average +/- Q Time Stamps	12/31/9999 23:59:59.99		F3		
Previous Scaled Energy Block										
2E3AH-2E3BH	11835-11836	925	0	20	Previous Total VAh (Quadrant 1+2+3+4) Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E3CH-2E3DH	11837-11838	925	1	20	Previous Positive VARh (Quadrant 1+2) Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E3EH-2E3FH	11839-11840	925	2	20	Previous Negative VARh (Quadrant 3+4) Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E40H-2E41H	11841-11842	926	0	20	Previous Positive Wh (Quadrant 1+4) Scaled Primary	999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E42H-2E43H	11843-11844	926	1	20	Previous Quadrant 1 VAh Scaled Primary	999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E44H-2E45H	11845-11846	926	2	20	Previous Quadrant 1 VARh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E46H-2E47H	11847-11848	926	3	20	Previous Quadrant 4 VAh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E48H-2E49H	11849-11850	926	4	20	Previous Quadrant 4 VARh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E4AH-2E4BH	11851-11852	926	5	20	Previous Negative Wh (Quadrant 2+3) Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E4CH-2E4DH	11853-11854	926	6	20	Previous Quadrant 2 VAh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E4EH-2E4FH	11855-11856	926	7	20	Previous Quadrant 2 VARh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E50H-2E51H	11857-11858	926	8	20	Previous Quadrant 3 VAh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E52H-2E53H	11859-11860	926	9	20	Previous Quadrant 3 VARh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E54H-2E55H	11861-11862	927	0	20	Previous I2t Phase A Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E56H-2E57H	11863-11864	927	1	20	Previous I2t Phase B Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E58H-2E59H	11865-11866	927	2	20	Previous I2t Phase C Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E5AH-2E5BH	11867-11868	927	3	20	Previous V2t Phase A Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E5CH-2E5DH	11869-11870	927	4	20	Previous V2t Phase B Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E5EH-2E5FH	11871-11872	927	5	20	Previous V2t Phase C Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E60H-2E61H	11873-11874	928	0	20	Previous Quadrant 1 Wh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E62H-2E63H	11875-11876	928	1	20	Previous Quadrant 4 Wh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E64H-2E65H	11877-11878	928	2	20	Previous Quadrant 2 Wh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E66H-2E67H	11879-11880	928	3	20	Previous Quadrant 3 Wh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E68H-2E69H	11881-11882	929	0	20	Previous Uncompensated Total VAh, Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E6AH-2E6BH	11883-11884	929	1	20	Previous Uncompensated + VARh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E6CH-2E6DH	11885-11886	929	2	20	Previous Uncompensated - VARh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E6EH-2E6FH	11887-11888	929	3	20	Previous Uncompensated + Wh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E70H-2E71H	11889-11890	929	4	20	Previous Uncompensated - Wh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
2E72H-2E73H	11891-11892	930	0	20	Previous + Qh Scaled Primary	variable (9999 through 999999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2E74H-2E75H	11893-11894	930	1		Previous - Qh Scaled Primary	variable (9999 through 99999999 / 0)	variable 10 ⁶ - 10 ⁷	F64		
One Second Three Phase Mean RMS Block										
2E76H-2E77H	11895-11896	931	0	30	One Second Three Phase Mean RMS Vpn	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	
2E78H-2E79H	11897-11898	932	0	30	One Second Three Phase Mean RMS Amp	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	
2E7AH-2E7BH	11899-11900	933	0	30	One Second Three Phase Mean RMS Vpp	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	
Block Window Max/Min and 10 Minute Mean THD Block										
2E7CH-2E7FH	11901-11904	934	0	50	Block Window Max/Min and 10 Minute Mean THD Block Timestamp	12/31/9999 23:59:59.99		F3		
2E80H-2E83H	11905-11908	934	1	50	Block Window Max./Min Interval 1 Timestamp	12/31/9999 23:59:59.99		F3		
2E84H-2E87H	11909-11912	934	2	50	Block Window Max/Min Interval 2 Timestamp	12/31/9999 23:59:59.99		F3		
2E88H-2E8BH	11913-11916	934	3	50	Block Window Max Interval 1 Three Phase Mean RMS Vpn Timestamp	12/31/9999 23:59:59.99		F3		
2E8CH-2E8FH	11917-11920	934	4	50	Block Window Max Interval 1 Three Phase Mean RMS Amp Timestamp	12/31/9999 23:59:59.99		F3		
2E90H-2E93H	11921-11924	934	5	50	Block Window Max Interval 1 Three Phase Mean RMS Vpp Timestamp	12/31/9999 23:59:59.99		F3		
2E94H-2E97H	11925-11928	934	6	50	Block Window Max Interval 1 VAR Q1+2 Timestamp	12/31/9999 23:59:59.99		F3		
2E98H-2E9BH	11929-11932	934	7	50	Block Window Max Interval 1 VAR Q3+4 Timestamp	12/31/9999 23:59:59.99		F3		
2E9CH-2E9FH	11933-11936	934	8	50	Block Window Max Interval 1 W Q1+4 Timestamp	12/31/9999 23:59:59.99		F3		
2EA0H-2EA3H	11937-11940	934	9	50	Block Window Max Interval 1 W Q2+3 Timestamp	12/31/9999 23:59:59.99		F3		
2EA4H-2EA7H	11941-11944	934	10	50	Block Window Max Interval 2 Three Phase Mean RMS Vpn Timestamp	12/31/9999 23:59:59.99		F3		
2EA8H-2EABH	11945-11948	934	11	50	Block Window Max Interval 2 Three Phase Mean RMS Amp Timestamp	12/31/9999 23:59:59.99		F3		
2EACH-2EAFH	11949-11952	934	12	50	Block Window Max Interval 2 Three Phase Mean RMS Vpp Timestamp	12/31/9999 23:59:59.99		F3		
2EB0H-2EB3H	11953-11956	934	13	50	Block Window Max Interval 2 VAR Q1+2 Timestamp	12/31/9999 23:59:59.99		F3		
2EB4H-2EB7H	11957-11960	934	14	50	Block Window Max Interval 2 VAR Q3+4 Timestamp	12/31/9999 23:59:59.99		F3		
2EB8H-2EBBH	11961-11964	934	15	50	Block Window Max Interval 2 W Q1+4 Timestamp	12/31/9999 23:59:59.99		F3		
2EBCH-2EBFH	11965-11968	934	16	50	Block Window Max Interval 2 W Q2+3 Timestamp	12/31/9999 23:59:59.99		F3		
2EC0H-2EC3H	11969-11972	934	17	50	Block Window Min Interval 1 Three Phase Mean RMS Vpn Timestamp	12/31/9999 23:59:59.99		F3		
2EC4H-2EC7H	11973-11976	934	18	50	Block Window Min Interval 1 Three Phase Mean RMS Amp Timestamp	12/31/9999 23:59:59.99		F3		
2EC8H-2ECBH	11977-11980	934	19	50	Block Window Min Interval 1 Three Phase Mean RMS Vpp Timestamp	12/31/9999 23:59:59.99		F3		
2ECCH-2ECFH	11981-11984	934	20	50	Block Window Min Interval 1 VAR Q1+2 Timestamp	12/31/9999 23:59:59.99		F3		
2ED0H-2ED3H	11985-11988	934	21	50	Block Window Min Interval 1 VAR Q3+4 Timestamp	12/31/9999 23:59:59.99		F3		
2ED4H-2ED7H	11989-11992	934	22	50	Block Window Min Interval 1 W Q1+4 Timestamp	12/31/9999 23:59:59.99		F3		
2ED8H-2EDBH	11993-11996	934	23	50	Block Window Min Interval 1 W Q2+3 Timestamp	12/31/9999 23:59:59.99		F3		
2EDCH-2EDFH	11997-12000	934	24	50	Block Window Min Interval 2 Three Phase Mean RMS Vpn Timestamp	12/31/9999 23:59:59.99		F3		
2EE0H-2EE3H	12001-12004	934	25	50	Block Window Min Interval 2 Three Phase Mean RMS Amp Timestamp	12/31/9999 23:59:59.99		F3		
2EE4H-2EE7H	12005-12008	934	26	50	Block Window Min Interval 2 Three Phase Mean RMS Vpp Timestamp	12/31/9999 23:59:59.99		F3		
2EE8H-2EEBH	12009-12012	934	27	50	Block Window Min Interval 2 VAR Q1+2 Timestamp	12/31/9999 23:59:59.99		F3		
2EECH-2EEFH	12013-12016	934	28	50	Block Window Min Interval 2 VAR Q3+4 Timestamp	12/31/9999 23:59:59.99		F3		
2EF0H-2EF3H	12017-12020	934	29	50	Block Window Min Interval 2 W Q1+4 Timestamp	12/31/9999 23:59:59.99		F3		
2EF4H-2EF7H	12021-12024	934	30	50	Block Window Min Interval 2 W Q2+3 Timestamp	12/31/9999 23:59:59.99		F3		
2EF8H-2EFBH	12025-12028	934	31	50	10 Minute Mean THD Timestamp	12/31/9999 23:59:59.99		F3		
2EFCH	12029	935	0	30	10 Minute Mean THD Van/Vab	+327.67% / -327.68%	0.01%	F10	R	
2EFDH	12030	935	1	30	10 Minute Mean THD Vbn/Vbc	+327.67% / -327.68%	0.01%	F10	R	
2EFEH	12031	935	2	30	10 Minute Mean THD Vcn/Vca	+327.67% / -327.68%	0.01%	F10	R	
2EFHH	12032	936	0	30	10 Minute Mean THD Ia	+327.67% / -327.68%	0.01%	F10	R	
2F00H	12033	936	1	30	10 Minute Mean THD Ib	+327.67% / -327.68%	0.01%	F10	R	
2F01H	12034	936	2	30	10 Minute Mean THD Ic	+327.67% / -327.68%	0.01%	F10	R	
2F02H-2F03H	12035-12036	937	0	30	Block Window Max Interval 1 Mean Vpn	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F04H-2F05H	12037-12038	938	0	30	Block Window Max Interval 1 Mean Amp	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
2F06H-2F07H	12039-12040	939	0	30	Block Window Max Interval 1 Mean Vpp	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
2F08H-2F09H	12041-12042	940	0	30	Block Window Max Interval 1 VAR Q1+2	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2F0AH-2F0BH	12043-12044	940	1	30	Block Window Max Interval 1 VAR Q3+4	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F0CH-2F0DH	12045-12046	940	2	30	Block Window Max Interval 1 W Q1+4	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2F0EH-2F0FH	12047-12048	940	3	30	Block Window Max Interval 1 W Q2+3	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2F10H-2F11H	12049-12050	941	0	30	Block Window Max Interval 2 Mean Vpn	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F12H-2F13H	12051-12052	942	0	30	Block Window Max Interval 2 Mean Amp	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
2F14H-2F15H	12053-12054	943	0	30	Block Window Max Interval 2 Mean Vpp	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F16H-2F17H	12055-12056	944	0	30	Block Window Max Interval 2 VAR Q1+2	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2F18H-2F19H	12057-12058	944	1	30	Block Window Max Interval 2 VAR Q3+4	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F1AH-2F1BH	12059-12060	944	2	30	Block Window Max Interval 2 W Q1+4	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2F1CH-2F1DH	12061-12062	944	3	30	Block Window Max Interval 2 W Q2+3	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2F1EH-2F1FH	12063-12064	945	0	30	Block Window Min Interval 1 Mean Vpn	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F20H-2F21H	12065-12066	946	0	30	Block Window Min Interval 1 Mean Amp	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
2F22H-2F23H	12067-12068	947	0	30	Block Window Min Interval 1 Mean Vpp	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F24H-2F25H	12069-12070	948	0	30	Block Window Min Interval 1 VAR Q1+2	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2F26H-2F27H	12071-12072	948	1	30	Block Window Min Interval 1 VAR Q3+4	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F28H-2F29H	12073-12074	948	2	30	Block Window Min Interval 1 W Q1+4	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2F2AH-2F2BH	12075-12076	948	3	30	Block Window Min Interval 1 W Q2+3	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2F2CH-2F2DH	12077-12078	949	0	30	Block Window Min Interval 2 Mean Vpn	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F2EH-2F2FH	12079-12080	950	0	30	Block Window Min Interval 2 Mean Amp	+ 32767 A / 0 A	1/ 65536 A sec	F7	R	6
2F30H-2F31H	12081-12082	951	0	30	Block Window Min Interval 2 Mean Vpp	+ 32767 V / 0 V	1/ 65536 V sec	F7	R	5
2F32H-2F33H	12083-12084	952	0	30	Block Window Min Interval 2 VAR Q1+2	+32767 VAR / 0 VAR	1/ 65536 VAR sec	F7	R	9
2F34H-2F35H	12085-12086	952	1	30	Block Window Min Interval 2 VAR Q3+4	0 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F36H-2F37H	12087-12088	952	2	30	Block Window Min Interval 2 W Q1+4	+32767 W / 0 W	1/ 65536 W sec	F7	R	9
2F38H-2F39H	12089-12090	952	3	30	Block Window Min Interval 2 W Q2+3	0 W / -32768 W	1/ 65536 W sec	F7	R	9
2F3AH-2F3DH	12091-12094	953	0	50	Block Window Max Interval 1 Overall VAR Timestamp	12/31/9999 23:59:59.99		F3		
2F3EH-2F41H	12095-12098	953	1	50	Block Window Max Interval 1 Overall W Timestamp	12/31/9999 23:59:59.99		F3		
2F42H-2F45H	12099-12102	953	2	50	Block Window Max Interval 2 Overall VAR Timestamp	12/31/9999 23:59:59.99		F3		
2F46H-2F49H	12103-12106	953	3	50	Block Window Max Interval 2 Overall W Timestamp	12/31/9999 23:59:59.99		F3		
2F4AH-2F4DH	12107-12110	953	4	50	Block Window Min Interval 1 Overall VAR Timestamp	12/31/9999 23:59:59.99		F3		
2F4EH-2F51H	12111-12114	953	5	50	Block Window Min Interval 1 Overall W Timestamp	12/31/9999 23:59:59.99		F3		
2F52H-2F55H	12115-12118	953	6	50	Block Window Min Interval 2 Overall VAR Timestamp	12/31/9999 23:59:59.99		F3		
2F56H-2F59H	12119-12122	953	7	50	Block Window Min Interval 2 Overall W Timestamp	12/31/9999 23:59:59.99		F3		
2F5AH-2F5BH	12123-12124	954	0	30	Block Window Max Interval 1 Overall VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F5CH-2F5DH	12125-12126	954	1	30	Block Window Max Interval 1 Overall W	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
2F5EH-2F5FH	12127-12128	954	2	30	Block Window Max Interval 2 Overall VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F60H-2F61H	12129-12130	954	3	30	Block Window Max Interval 2 Overall W	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
2F62H-2F63H	12131-12132	954	4	30	Block Window Min Interval 1 Overall VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F64H-2F65H	12133-12134	954	5	30	Block Window Min Interval 1 Overall W	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
2F66H-2F67H	12135-12136	954	6	30	Block Window Min Interval 2 Overall VAR	+32767 VAR / -32768 VAR	1/ 65536 VAR sec	F7	R	9
2F68H-2F69H	12137-12138	954	7	30	Block Window Min Interval 2 Overall W	+32767 W / -32768 W	1/ 65536 W sec	F7	R	9
Coincident Power Factor										
2F6CH	12141	1232	0		Coincident Block Window Average PF for Maximum +W	3,999 / 0.000	0.001 PF	F8	R	
2F6DH	12142	1232	1		Coincident Block Window Average PF for Maximum -W	3,999 / 0.000	0.001 PF	F8	R	
2F6EH	12143	1232	2		Coincident Block Window Average PF for Minimum +W	3,999 / 0.000	0.001 PF	F8	R	
2F6FH	12144	1232	3		Coincident Block Window Average PF for Minimum -W	3,999 / 0.000	0.001 PF	F8	R	
2F74H	12149	1234	0		Previous Coine. Block Window Average PF for Maximum +W	3,999 / 0.000	0.001 PF	F8	R	
2F75H	12150	1234	1		Previous Coine. Block Window Average PF for Maximum -W	3,999 / 0.000	0.001 PF	F8	R	
2F76H	12151	1234	2		Previous Coine. Block Window Average PF for Minimum +W	3,999 / 0.000	0.001 PF	F8	R	
2F77H	12152	1234	3		Previous Coine. Block Window Average PF for Minimum -W	3,999 / 0.000	0.001 PF	F8	R	
Enhanced Factory Settings Block										
4000H-4007H	16385-16392				Hardware Options (16 bytes)				R	
4008H-400BH	16393-16396				Serial Numbers (8 bytes, binary numbers)				R	
400CH-400FH	16397-16400				Reserved				R	
4010H-4017H	16401-16408				OEM Model String				R	
4018H-403FH	16408-16448				Reserved				R	
4040H-5FFFH	16449-24576				Undefined				R	
Enhanced Programmable Settings Block 2 (Range: 6000H-7FFFH)										
Nexus 15xx Master RTU (Function Code 0x03 Only) Group Labels										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
6000H-61FFH	24577-25088				Group Label[0] Group Label[1] ... Group Label[127]					
6200H-63FFH	25089-25600				Item Label[0] Item Label[1] ... Item Label[127]					
6400H-64FFH	25601-25856				Item Descriptor[0] Item Descriptor[1] ... Item Descriptor[127]					
6500H-65FFH	25857-26112				Item Limit[0] Setpoint 1 Item Limit[0] Setpoint 2 Item Limit[1] Setpoint 1 Item Limit[1] Setpoint 2 ... Item Limit[31] Setpoint 1 Item Limit[31] Setpoint 2					
6600H-67FFH	26111-26624				Undefined					
6800H-689FH	26625-26784				Reserved					
68A0H-68A1H	26785-26786				1st Digital Input Option board (Slot 3) chn 01 rollover settings					
68A2H-68A3H	26787-26788				1st Digital Input Option board (Slot 3) chn 02 rollover settings					
68A4H-68A5H	26789-26790				1st Digital Input Option board (Slot 3) chn 03 rollover settings					
68A6H-68A7H	26791-26792				1st Digital Input Option board (Slot 3) chn 04 rollover settings					
68A8H-68A9H	26793-26794				1st Digital Input Option board (Slot 3) chn 05 rollover settings					
68AAH-68ABH	26795-26796				1st Digital Input Option board (Slot 3) chn 06 rollover settings					
68ACH-68ADH	26797-26798				1st Digital Input Option board (Slot 3) chn 07 rollover settings					
68AEH-68AFH	26799-26800				1st Digital Input Option board (Slot 3) chn 08 rollover settings					
68B0H-68B1H	26801-26802				1st Digital Input Option board (Slot 3) chn 09 rollover settings					
68B2H-68B3H	26803-26804				1st Digital Input Option board (Slot 3) chn 10 rollover settings					
68B4H-68B5H	26805-26806				1st Digital Input Option board (Slot 3) chn 11 rollover settings					
68B6H-68B7H	26807-26808				1st Digital Input Option board (Slot 3) chn 12 rollover settings					
68B8H-68B9H	26809-26810				1st Digital Input Option board (Slot 3) chn 13 rollover settings					
68BAH-68BBH	26811-26812				1st Digital Input Option board (Slot 3) chn 14 rollover settings					
68BCH-68BDH	26813-26814				1st Digital Input Option board (Slot 3) chn 15 rollover settings					
68BEH-68BFH	26815-26816				1st Digital Input Option board (Slot 3) chn 16 rollover settings					
68C0H-68C1H	26817-26818				2nd Digital Input Option board (Slot 4) chn 01 rollover settings					
68C2H-68C3H	26819-26820				2nd Digital Input Option board (Slot 4) chn 02 rollover settings					
68C4H-68C5H	26821-26822				2nd Digital Input Option board (Slot 4) chn 03 rollover settings					
68C6H-68C7H	26823-26824				2nd Digital Input Option board (Slot 4) chn 04 rollover settings					
68C8H-68C9H	26825-26826				2nd Digital Input Option board (Slot 4) chn 05 rollover settings					
68CAH-68CBH	26827-26828				2nd Digital Input Option board (Slot 4) chn 06 rollover settings					
68CCH-68CDH	26829-26830				2nd Digital Input Option board (Slot 4) chn 07 rollover settings					
68CEH-68CFH	26831-26832				2nd Digital Input Option board (Slot 4) chn 08 rollover settings					
68D0H-68D1H	26833-26834				2nd Digital Input Option board (Slot 4) chn 09 rollover settings					
68D2H-68D3H	26835-26836				2nd Digital Input Option board (Slot 4) chn 10 rollover settings					
68D4H-68D5H	26837-26838				2nd Digital Input Option board (Slot 4) chn 11 rollover settings					
68D6H-68D7H	26839-26840				2nd Digital Input Option board (Slot 4) chn 12 rollover settings					
68D8H-68D9H	26841-26842				2nd Digital Input Option board (Slot 4) chn 13 rollover settings					
68DAH-68DBH	26843-26844				2nd Digital Input Option board (Slot 4) chn 14 rollover settings					
68DCH-68DDH	26845-26846				2nd Digital Input Option board (Slot 4) chn 15 rollover settings					
68DEH-68DFH	26847-26848				2nd Digital Input Option board (Slot 4) chn 16 rollover settings					
68E0H-6FFFH	26849-28672				Reserved					
Nexus 15xx Interval Log Settings Block										
7000H-707FH	28673-28800				Interval Log 3 Item[0]: Line, Pointer Interval Log 3 Item[1]: Line, Pointer ... Interval Log 3 Item[63]: Line, Pointer					

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
7080H-70FFH	28801-28928				Interval Log 4 Item[0]: Line, Pointer Interval Log 4 Item[1]: Line, Pointer ... Interval Log 4 Item[63]: Line, Pointer					
7100H-717FH	28929-29056				Interval Log 5 Item[0]: Line, Pointer Interval Log 5 Item[1]: Line, Pointer ... Interval Log 5 Item[63]: Line, Pointer					
7180H-71FFH	29057-29184				Interval Log 6 Item[0]: Line, Pointer Interval Log 6 Item[1]: Line, Pointer ... Interval Log 6 Item[63]: Line, Pointer					
7200H-727FH	29185-29312				Interval Log 7 Item[0]: Line, Pointer Interval Log 7 Item[1]: Line, Pointer ... Interval Log 7 Item[63]: Line, Pointer					
7280H-72FFH	29313-29440				Interval Log 8 Item[0]: Line, Pointer Interval Log 8 Item[1]: Line, Pointer ... Interval Log 8 Item[63]: Line, Pointer					
7300HH	29441				Interval Log 3 Interval					
7301HH	29442				Interval Log 4 Interval					
7302HH	29443				Interval Log 3 Record Size					
7303HH	29444				Interval Log 4 Record Size					
7304HH	29445				Interval Log 5 Interval					
7305HH	29446				Interval Log 6 Interval					
7306HH	29447				Interval Log 5 Record Size					
7307HH	29448				Interval Log 6 Record Size					
7308HH	29449				Interval Log 7 Interval					
7309HH	29450				Interval Log 8 Interval					
730AHH	29451				Interval Log 7 Record Size					
730BHH	29452				Interval Log 8 Record Size					
730CH-748BH	29453-29836				Reserved					
748CH-750BH	29837-29964				Event Triggered Log Item[0]: Line, Pointer Event Triggered Log Item[1]: Line, Pointer ... Event Triggered Log Item[63]: Line, Pointer					
750CH-754BH	29965-30028				Reserved					
754CH	30029				MSB Byte[1]: Event Triggered Log Internal Input ID Byte[0]: Reserved					
754DH	30030				MSB Byte[1]: Reserved Byte[0]: Event Triggered Log Enabled					
754EH	30031				Event Triggered Log Recording Speed					
754FH	30032				Event Triggered Log Recording Duration					
7550H	30033				Event Triggered Log Record Size					
7551H	30034				Event Triggered Log Multiple Sequence					
7552H	30035				MSB first Byte[1]: undefined Byte[0]: bit 7 - 2 - reserved bit 1 - 0 - disable TLC when all current are zero = 00 = NO = 01 = YES = 10 = YES = 11 = NO					
7553H	30036				Reserved					
Waveform Voltage Envelope Wave Shape Threshold										
7554H-756BH	30037-30060				Reserved					
Waveform Current Change of Rate Threshold										
756CH-756FH	30061-30064				Reserved					
Waveform Capture Rules										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
7570H-7571H	30065-30066				Waveform Capture Window Amount 0 = 1 capture 1 = 2 capture ... 65535 = 65536 capture >65535 = 1 capture					
7572H-7573H	30067-30068				Reserved					
7574H	30069				Waveform samples/cycles @60Hz 0 = 16 1 = 32 2 = 64 3 = 128 4 = 256 5 = 512 6 = 1024 >6 = 1024					
7575H	30070				MSB Byte[1]: Waveform Pre Trigger (>=1 <=179) Byte[0]: Waveform Post Trigger (>=1 <=179)					
7576H	30071				Waveform Digital Input Triggers (MSB) Byte[1]: Undefined Byte[0]: Bit [7] = Input 8 Bit [6] = Input 7 Bit [5] = Input 6 Bit [4] = Input 5 Bit [3] = Input 4 Bit [2] = Input 3 Bit [1] = Input 2 Bit [0] = Input 1					
7577H	30072				Reserved					
Waveform Transient										
7578H	30073				Voltage A Threshold % of full scale	+6553.5% / -6553.5%	0.1%			
7579H	30074				Voltage B Threshold % of full scale	+6553.5% / -6553.5%	0.1%			
757AH	30075				Voltage C Threshold % of full scale	+6553.5% / -6553.5%	0.1%			
757BH	30076				Mode/Enable(MSB) Bit[15]-Bit[11]: Reserved Bit[10]: Transien Enable - Channel Vc Bit[9]: Transien Enable - Channel Vb Bit[8]: Transien Enable - Channel Va Bit[7]-Bit[2]: Reserved Bit[1]: Transient Mode: 0=PH-N, 1=PH-PH Bit[0]: Transient Mode: 0=Disabled, 1=Enabled					
Waveform Transient Settings										
757CH	30077				Number Maximum of Channel					
757DH	30078				Channel 1 Number					
757EH	30079				Channel 2 Number					
757FH	30080				Channel 3 Number					
7580H	30081				Channel 4 Number					
7581H	30082				Channel 5 Number					
7582H	30083				Channel 6 Number					
7583H	30084				Channel 7 Number					
7584H	30085				Channel 8 Number					
7585H	30086				Channel 9 Number					
7586H	30087				Channel 10 Number					
7587H	30088				Channel 11 Number					
7588H	30089				Channel 12 Number					
7589H	30090				Channel 13 Number					
758AH	30091				Channel 14 Number					
758BH	30092				Channel 15 Number					
758CH	30093				Channel 16 Number					
758DH-758EH	30094-30095				Power Quality Enable					

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
758FH	30096				Transient Waveform Trigger (MSB) Bit[15]-Bit[6]: Reserved Bit[5]: Transient Waveform Trigger Enable - Channel Vca Bit[4]: Transient Waveform Trigger Enable - Channel Vbc Bit[3]: Transient Waveform Trigger Enable - Channel Vab Bit[2]: Transient Waveform Trigger Enable - Channel Vcn Bit[1]: Transient Waveform Trigger Enable - Channel Vbn Bit[0]: Transient Waveform Trigger Enable - Channel Van 0=Enable, 1=Disable					
Log Configuration Settings										
7590H-7591H	30097-30098				Log Mode 0 = Maximum Number of 1Mbyte files allowed >0 Not defined					
7592H-7593H	30099-30100				System Events Log Size	4,294,967,295 / 0	1	F53	R/W	
7594H-7595H	30101-30102				Interval Log 1 Log Size	4,294,967,295 / 0	1	F53	R/W	
7596H-7597H	30103-30104				Interval Log 2 Log Size	4,294,967,295 / 0	1	F53	R/W	
7598H-7599H	30105-30106				Interval Log 3 Log Size	4,294,967,295 / 0	1	F53	R/W	
759AH-759BH	30107-30108				Interval Log 4 Log Size	4,294,967,295 / 0	1	F53	R/W	
759CH-759DH	30109-30110				Interval Log 5 Log Size	4,294,967,295 / 0	1	F53	R/W	
759EH-759FH	30111-30112				Interval Log 6 Log Size	4,294,967,295 / 0	1	F53	R/W	
75A0H-75A1H	30113-30114				Interval Log 7 Log Size	4,294,967,295 / 0	1	F53	R/W	
75A2H-75A3H	30115-30116				Interval Log 8 Log Size	4,294,967,295 / 0	1	F53	R/W	
75A4H-75A5H	30117-30118				Event Triggered Log Size	4,294,967,295 / 0	1	F53	R/W	
75A6H-75A7H	30119-30120				Sequence of Event (Limits) Log Size	4,294,967,295 / 0	1	F53	R/W	
75A8H-75A9H	30121-30122				Digital Input Log Size	4,294,967,295 / 0	1	F53	R/W	
75AAH-75ABH	30123-30124				Digital Output Log Size	4,294,967,295 / 0	1	F53	R/W	
75ACH-75ADH	30125-13126				Flicker Log Size	4,294,967,295 / 0	1	F53	R/W	
75AEH-75AFH	30127-30128				Waveform Log Size	4,294,967,295 / 0	1	F53	R/W	
75B0H-75B1H	30129-30130				Power Quality Log Size	4,294,967,295 / 0	1	F53	R/W	
75B2H-75B3H	30131-30132				Transients Log Size	4,294,967,295 / 0	1	F53	R/W	
75B4H-75FFH	30133-30208				Reserved					
Network Card #2 Settings (Part 1 of 2)										
7600H-7601H	30209-30210				IP Address					
7602H-7603H	30211-30212				Subnet Mask					
7604H-7605H	30213-30214				Default Gateway					
7606H	30215				MSB Byte[1]: Port 2 Baud Rate Byte[0]: Gateway Delay					
7607H	30216				MSB Byte[1]: Mode Byte[0]: Mode 2					
7608H-760FH	30217-30224				Computer Name					
7610H-7611H	30225-30226				DNS Server 1 IP Address					
7612H-7613H	30227-30228				DNS Server 2 IP Address					
7614H-7615H	30229-30230				Server / Service Enable Bits					
7616H	30231				Email Port Number					
7617H	30232				FTP Port Number					
Network Card #2 Settings (Part 2 of 2)										
7618H-7621H	30233-30242				Reserved					
7622H	30243				Email Mode (MSB) Bit[15]: 0=authentication on; 1=authentication off Bit[14]-Bit[0] = Not defined					
7623H-7663H	30244-30308				Reserved					
Email Client Settings										
7664H-7683H	30309-30340				Email Server IP Address/name					
7684H-76A3H	30341-30372				Administrator Email Address					
76A4H-76C3H	30373-30404				Email Replay Address					
76C4H-76E3H	30405-30436				Email Subject Text					
76E4H-76F3H	30437-30452				Email username					
76F4H-7703H	30453-30468				Email Password					
FTP Client Settings										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
7704H-7713H	30469-30484				Username					
7714H-7723H	30485-30500				Password					
7724H-7763H	30501-30567				Startup Path/Directory					
7764H-7783H	30565-30596				Server IP Address/Name					
GE Protocol (EGD)										
7784H-7785H	30597-30598				IP Address					
7786H	30599				Update Interval(1=100msec to 65000=6500 seconds)					
7787H	30600				MSB Byte[1]: Connection Type (0=broadcast, 1=multicast, 2=unicast) Byte[0]: Options (Bit[0]: 1=Use IP as Producer ID, 0=Use User Defined)					
7788H-7789H	30601-30602				User Producer ID					
778AH-778BH	30603-30604				Reserved					
DNP LAN/WAN										
778CH-778DH	30605-30606				MSB Byte[3]: Mode(0=disabled, 1=standard settings, 2=user settings, 3>= disabled) Byte[2]: Bitmap (Bit[7]: TCP Enable, Bit[6]=UDP enable, Bit[5]: Validate Ports, Bit[4]: UDP Defined Port) Byte[1]: UDP Address Byte[0]: Validate IP					
778EH	30607				TCP Listen Port					
778FH	30608				UDP Listen Port					
7790H-7791H	30609-30610				Valid IP Address #1					
7792H-7793H	30611-30612				Valid IP Address #2					
7794H-7795H	30613-30614				Valid IP Address #3					
7796H-7797H	30615-30616				Valid IP Address #4					
7798H-7799H	30617-30618				Valid IP Subnet Mask #1					
779AH-779BH	30619-30620				Valid IP Subnet Mask #2					
779CH-779DH	30621-30622				Valid IP Subnet Mask #3					
779EH-779FH	30623-30624				Valid IP Subnet Mask #4					
77A0H-77A3H	30625-30628				Valid TCP Start Ports					
77A4H-77A7H	30629-30632				Valid TCP End Ports					
77A8H-77ABH	30633-30636				Valid UDP Start Ports					
77ACH-77AFH	30637-30640				Valid UDP End Ports					
77B0H-77B1H	30641-30642				Valid Multicast Group Address					
77B2H	30643				Valid UDP Respond Port					
77B3H	30644				Device Address					
77B4H-77B7H	30645-30648				Reserved					
SNTP Settings										
77B8H	30649				Synch Source MSB first, Byte[1] - Synch Source: 0 = IRIG-B(default); 1 = SNTP; 2 = Line synch; 3 = PTP (IEEE 1588); 255 = No synch; others = undefined. Byte[0] - Mode: 0 = Unicast; 1 = Broadcast (not implemented)					
77B9H	30651				Port Default to 123 if equal to 0x000 or 0xFFFF					
77BAH	30652				Synch Rate in minute: >=1(default) and <= 1440 (24Hours)					
77BBH	30652				Timeout in seconds: >=10(default) and <= 60					
77BCH-77DBH	30653-30684				Server 1 Name or IP Address is ASCII character					
77DCH-77FBH	30685-30716				Server 2 Name or IP Address is ASCII character					
77FCH-77FFH	30617-30720				Reserved					
IEC 61000-4-30: Block Settings										
Voltage Boundary Hysteresis										
7800H	30721				Phase A-N Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7801H	30722				Phase B-N Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7802H	30723				Phase C-N Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7803H	30724				Phase A-B Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7804H	30725				Phase B-C Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
7805H	30726				Phase C-A Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7806H	30727				Phase X-N Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7807H	30728				Phase N-E Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7808H	30729				Phase A-E Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
7809H	30730				Phase B-E Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
780AH	30731				Phase C-E Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
780BH	30732				Phase X-E Voltage Sag Setpoint	0% / +65535%	0.01%	F10	R	
780CH	30733				Phase A-N Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
780DH	30734				Phase B-N Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
780EH	30735				Phase C-N Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
780FH	30736				Phase A-B Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7810H	30737				Phase B-C Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7811H	30738				Phase C-A Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7812H	30739				Phase X-N Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7813H	30740				Phase N-E Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7814H	30741				Phase A-E Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7815H	30742				Phase B-E Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7816H	30743				Phase C-E Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
7817H	30744				Phase X-E Voltage Swell Setpoint	0% / +65535%	0.01%	F10	R	
Current Boundary Hysteresis										
7818H	30745				Phase A Current Sag Setpoint	0% / +65535%	0.01%	F10	R	
7819H	30746				Phase B Current Sag Setpoint	0% / +65535%	0.01%	F10	R	
781AH	30747				Phase C Current Sag Setpoint	0% / +65535%	0.01%	F10	R	
781BH	30748				Phase X Current Sag Setpoint	0% / +65535%	0.01%	F10	R	
781CH	30749				Phase A Current Swell Setpoint	0% / +65535%	0.01%	F10	R	
781DH	30750				Phase B Current Swell Setpoint	0% / +65535%	0.01%	F10	R	
781EH	30751				Phase C Current Swell Setpoint	0% / +65535%	0.01%	F10	R	
781FH	30752				Phase X Current Swell Setpoint	0% / +65535%	0.01%	F10	R	
Voltage Boundary Interruptions										
7820H	30753				Phase A-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7821H	30754				Phase B-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7822H	30755				Phase C-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7823H	30756				Phase A-B Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7824H	30757				Phase B-C Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7825H	30758				Phase C-A Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7826H	30759				Phase X-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7827H	30760				Phase N-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7828H	30761				Phase A-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7829H	30762				Phase B-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7829H	30763				Phase C-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
782BH	30764				Phase X-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
Voltage Boundary Interruptions Hysteresis										
782CH	30765				Phase A-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
782DH	30766				Phase B-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
782EH	30767				Phase C-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
782FH	30768				Phase A-B Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7830H	30769				Phase B-C Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7831H	30770				Phase C-A Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7832H	30771				Phase X-N Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7833H	30772				Phase N-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7834H	30773				Phase A-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7835H	30774				Phase B-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7836H	30775				Phase C-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
7837H	30776				Phase X-E Voltage Setpoint	0% / +65535%	0.01%	F10	R	
Voltage Nominal										
7838H	30777				Phase A-N Voltage	0% / +65535%	0.01%	F10	R	
7839H	30778				Phase B-N Voltage	0% / +65535%	0.01%	F10	R	
783AH	30779				Phase C-N Voltage	0% / +65535%	0.01%	F10	R	
783BH	30780				Phase A-B Voltage	0% / +65535%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
783CH	30781				Phase B-C Voltage	0% / +65535%	0.01%	F10	R	
783DH	30782				Phase C-A Voltage	0% / +65535%	0.01%	F10	R	
783EH-783FH	30783-30784				Reserved	0% / +65535%	0.01%	F10	R	
Harmonic Subgroup Magnitude Threshold										
7840H	30785				Order #0	0% / +65535%	0.01%	F10	R	
7841H	30786				Order #1	0% / +65535%	0.01%	F10	R	
7842H	30787				Order #2	0% / +65535%	0.01%	F10	R	
7843H	30788				Order #3	0% / +65535%	0.01%	F10	R	
7844H	30789				Order #4	0% / +65535%	0.01%	F10	R	
7845H	30790				Order #5	0% / +65535%	0.01%	F10	R	
7846H	30791				Order #6	0% / +65535%	0.01%	F10	R	
7847H	30792				Order #7	0% / +65535%	0.01%	F10	R	
7848H	30793				Order #8	0% / +65535%	0.01%	F10	R	
7849H	30794				Order #9	0% / +65535%	0.01%	F10	R	
784AH	30795				Order #10	0% / +65535%	0.01%	F10	R	
784BH	30796				Order #11	0% / +65535%	0.01%	F10	R	
784CH	30797				Order #12	0% / +65535%	0.01%	F10	R	
784DH	30798				Order #13	0% / +65535%	0.01%	F10	R	
784EH	30799				Order #14	0% / +65535%	0.01%	F10	R	
784FH	30800				Order #15	0% / +65535%	0.01%	F10	R	
7850H	30801				Order #16	0% / +65535%	0.01%	F10	R	
7851H	30802				Order #17	0% / +65535%	0.01%	F10	R	
7852H	30803				Order #18	0% / +65535%	0.01%	F10	R	
7853H	30804				Order #19	0% / +65535%	0.01%	F10	R	
7854H	30805				Order #20	0% / +65535%	0.01%	F10	R	
7855H	30806				Order #21	0% / +65535%	0.01%	F10	R	
7856H	30807				Order #22	0% / +65535%	0.01%	F10	R	
7857H	30808				Order #23	0% / +65535%	0.01%	F10	R	
7858H	30809				Order #24	0% / +65535%	0.01%	F10	R	
7859H	30810				Order #25	0% / +65535%	0.01%	F10	R	
785AH	30811				Order #26	0% / +65535%	0.01%	F10	R	
785BH	30812				Order #27	0% / +65535%	0.01%	F10	R	
785CH	30813				Order #28	0% / +65535%	0.01%	F10	R	
785DH	30814				Order #29	0% / +65535%	0.01%	F10	R	
785EH	30815				Order #30	0% / +65535%	0.01%	F10	R	
785FH	30816				Order #31	0% / +65535%	0.01%	F10	R	
7860H	30817				Order #32	0% / +65535%	0.01%	F10	R	
7861H	30818				Order #33	0% / +65535%	0.01%	F10	R	
7862H	30819				Order #34	0% / +65535%	0.01%	F10	R	
7863H	30820				Order #35	0% / +65535%	0.01%	F10	R	
7864H	30821				Order #36	0% / +65535%	0.01%	F10	R	
7865H	30822				Order #37	0% / +65535%	0.01%	F10	R	
7866H	30823				Order #38	0% / +65535%	0.01%	F10	R	
7867H	30824				Order #39	0% / +65535%	0.01%	F10	R	
7868H	30825				Order #40	0% / +65535%	0.01%	F10	R	
7869H	30826				Order #41	0% / +65535%	0.01%	F10	R	
786AH	30827				Order #42	0% / +65535%	0.01%	F10	R	
786BH	30828				Order #43	0% / +65535%	0.01%	F10	R	
786CH	30829				Order #44	0% / +65535%	0.01%	F10	R	
786DH	30830				Order #45	0% / +65535%	0.01%	F10	R	
786EH	30831				Order #46	0% / +65535%	0.01%	F10	R	
786FH	30832				Order #47	0% / +65535%	0.01%	F10	R	
7870H	30833				Order #48	0% / +65535%	0.01%	F10	R	
7871H	30834				Order #49	0% / +65535%	0.01%	F10	R	
7872H	30835				Order #50	0% / +65535%	0.01%	F10	R	
7873H	30836				Order #51	0% / +65535%	0.01%	F10	R	
Interharmonic Subgroup Magnitude Threshold										
7874H	30837				Order #0	0% / +65535%	0.01%	F10	R	
7875H	30838				Order #1	0% / +65535%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
7876H	30839				Order #2	0% / +65535%	0.01%	F10	R	
7877H	30840				Order #3	0% / +65535%	0.01%	F10	R	
7878H	30841				Order #4	0% / +65535%	0.01%	F10	R	
7879H	30842				Order #5	0% / +65535%	0.01%	F10	R	
787AH	30843				Order #6	0% / +65535%	0.01%	F10	R	
787BH	30844				Order #7	0% / +65535%	0.01%	F10	R	
787CH	30845				Order #8	0% / +65535%	0.01%	F10	R	
787DH	30846				Order #9	0% / +65535%	0.01%	F10	R	
787EH	30847				Order #10	0% / +65535%	0.01%	F10	R	
787FH	30848				Order #11	0% / +65535%	0.01%	F10	R	
7880H	30849				Order #12	0% / +65535%	0.01%	F10	R	
7881H	30850				Order #13	0% / +65535%	0.01%	F10	R	
7882H	30851				Order #14	0% / +65535%	0.01%	F10	R	
7883H	30852				Order #15	0% / +65535%	0.01%	F10	R	
7884H	30853				Order #16	0% / +65535%	0.01%	F10	R	
7885H	30854				Order #17	0% / +65535%	0.01%	F10	R	
7886H	30855				Order #18	0% / +65535%	0.01%	F10	R	
7887H	30856				Order #19	0% / +65535%	0.01%	F10	R	
7888H	30857				Order #20	0% / +65535%	0.01%	F10	R	
7889H	30858				Order #21	0% / +65535%	0.01%	F10	R	
788AH	30859				Order #22	0% / +65535%	0.01%	F10	R	
788BH	30860				Order #23	0% / +65535%	0.01%	F10	R	
788CH	30861				Order #24	0% / +65535%	0.01%	F10	R	
788DH	30862				Order #25	0% / +65535%	0.01%	F10	R	
788EH	30863				Order #26	0% / +65535%	0.01%	F10	R	
788FH	30864				Order #27	0% / +65535%	0.01%	F10	R	
7890H	30865				Order #28	0% / +65535%	0.01%	F10	R	
7891H	30866				Order #29	0% / +65535%	0.01%	F10	R	
7892H	30867				Order #30	0% / +65535%	0.01%	F10	R	
7893H	30868				Order #31	0% / +65535%	0.01%	F10	R	
7894H	30869				Order #32	0% / +65535%	0.01%	F10	R	
7895H	30870				Order #33	0% / +65535%	0.01%	F10	R	
7896H	30871				Order #34	0% / +65535%	0.01%	F10	R	
7897H	30872				Order #35	0% / +65535%	0.01%	F10	R	
7898H	30873				Order #36	0% / +65535%	0.01%	F10	R	
7899H	30874				Order #37	0% / +65535%	0.01%	F10	R	
789AH	30875				Order #38	0% / +65535%	0.01%	F10	R	
789BH	30876				Order #39	0% / +65535%	0.01%	F10	R	
789CH	30877				Order #40	0% / +65535%	0.01%	F10	R	
789DH	30878				Order #41	0% / +65535%	0.01%	F10	R	
789EH	30879				Order #42	0% / +65535%	0.01%	F10	R	
789FH	30880				Order #43	0% / +65535%	0.01%	F10	R	
78A0H	30881				Order #44	0% / +65535%	0.01%	F10	R	
78A1H	30882				Order #45	0% / +65535%	0.01%	F10	R	
78A2H	30883				Order #46	0% / +65535%	0.01%	F10	R	
78A3H	30884				Order #47	0% / +65535%	0.01%	F10	R	
78A4H	30885				Order #48	0% / +65535%	0.01%	F10	R	
78A5H	30886				Order #49	0% / +65535%	0.01%	F10	R	
78A6H	30887				Order #50	0% / +65535%	0.01%	F10	R	
78A7H	30888				Order #51	0% / +65535%	0.01%	F10	R	
Harmonic Group Magnitude Threshold (Factory Use Only)										
78A8H	30889				Order #0	0% / +65535%	0.01%	F10	R	
78A9H	30890				Order #1	0% / +65535%	0.01%	F10	R	
78AAH	30891				Order #2	0% / +65535%	0.01%	F10	R	
78ABH	30892				Order #3	0% / +65535%	0.01%	F10	R	
78ACH	30893				Order #4	0% / +65535%	0.01%	F10	R	
78ADH	30894				Order #5	0% / +65535%	0.01%	F10	R	
78AEH	30895				Order #6	0% / +65535%	0.01%	F10	R	
78AFH	30896				Order #7	0% / +65535%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
78B0H	30897				Order #8	0% / +65535%	0.01%	F10	R	
78B1H	30898				Order #9	0% / +65535%	0.01%	F10	R	
78B2H	30899				Order #10	0% / +65535%	0.01%	F10	R	
78B3H	30900				Order #11	0% / +65535%	0.01%	F10	R	
78B4H	30901				Order #12	0% / +65535%	0.01%	F10	R	
78B5H	30902				Order #13	0% / +65535%	0.01%	F10	R	
78B6H	30903				Order #14	0% / +65535%	0.01%	F10	R	
78B7H	30904				Order #15	0% / +65535%	0.01%	F10	R	
78B8H	30905				Order #16	0% / +65535%	0.01%	F10	R	
78B9H	30906				Order #17	0% / +65535%	0.01%	F10	R	
78BAH	30907				Order #18	0% / +65535%	0.01%	F10	R	
78BBH	30908				Order #19	0% / +65535%	0.01%	F10	R	
78BCH	30909				Order #20	0% / +65535%	0.01%	F10	R	
78BDH	30910				Order #21	0% / +65535%	0.01%	F10	R	
78BEH	30911				Order #22	0% / +65535%	0.01%	F10	R	
78BFH	30912				Order #23	0% / +65535%	0.01%	F10	R	
78C0H	30913				Order #24	0% / +65535%	0.01%	F10	R	
78C1H	30914				Order #25	0% / +65535%	0.01%	F10	R	
78C2H	30915				Order #26	0% / +65535%	0.01%	F10	R	
78C3H	30916				Order #27	0% / +65535%	0.01%	F10	R	
78C4H	30917				Order #28	0% / +65535%	0.01%	F10	R	
78C5H	30918				Order #29	0% / +65535%	0.01%	F10	R	
78C6H	30919				Order #30	0% / +65535%	0.01%	F10	R	
78C7H	30920				Order #31	0% / +65535%	0.01%	F10	R	
78C8H	30921				Order #32	0% / +65535%	0.01%	F10	R	
78C9H	30922				Order #33	0% / +65535%	0.01%	F10	R	
78CAH	30923				Order #34	0% / +65535%	0.01%	F10	R	
78CBH	30924				Order #35	0% / +65535%	0.01%	F10	R	
78CCH	30925				Order #36	0% / +65535%	0.01%	F10	R	
78CDH	30926				Order #37	0% / +65535%	0.01%	F10	R	
78CEH	30927				Order #38	0% / +65535%	0.01%	F10	R	
78CFH	30928				Order #39	0% / +65535%	0.01%	F10	R	
78DOH	30929				Order #40	0% / +65535%	0.01%	F10	R	
78D1H	30930				Order #41	0% / +65535%	0.01%	F10	R	
78D2H	30931				Order #42	0% / +65535%	0.01%	F10	R	
78D3H	30932				Order #43	0% / +65535%	0.01%	F10	R	
78D4H	30933				Order #44	0% / +65535%	0.01%	F10	R	
78D5H	30934				Order #45	0% / +65535%	0.01%	F10	R	
78D6H	30935				Order #46	0% / +65535%	0.01%	F10	R	
78D7H	30936				Order #47	0% / +65535%	0.01%	F10	R	
78D8H	30937				Order #48	0% / +65535%	0.01%	F10	R	
78D9H	30938				Order #49	0% / +65535%	0.01%	F10	R	
78DAH	30939				Order #50	0% / +65535%	0.01%	F10	R	
78DBH	30940				Order #51	0% / +65535%	0.01%	F10	R	
Interharmonic Group Magnitude Threshold (Factory Use Only)										
78DCH	30941				Order #0	0% / +65535%	0.01%	F10	R	
78DDH	30942				Order #1	0% / +65535%	0.01%	F10	R	
78DEH	30943				Order #2	0% / +65535%	0.01%	F10	R	
78DFH	30944				Order #3	0% / +65535%	0.01%	F10	R	
78E0H	30945				Order #4	0% / +65535%	0.01%	F10	R	
78E1H	30946				Order #5	0% / +65535%	0.01%	F10	R	
78E2H	30947				Order #6	0% / +65535%	0.01%	F10	R	
78E3H	30948				Order #7	0% / +65535%	0.01%	F10	R	
78E4H	30949				Order #8	0% / +65535%	0.01%	F10	R	
78E5H	30950				Order #9	0% / +65535%	0.01%	F10	R	
78E6H	30951				Order #10	0% / +65535%	0.01%	F10	R	
78E7H	30952				Order #11	0% / +65535%	0.01%	F10	R	
78E8H	30953				Order #12	0% / +65535%	0.01%	F10	R	
78E9H	30954				Order #13	0% / +65535%	0.01%	F10	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
78EAH	30955				Order #14	0% / +65535%	0.01%	F10	R	
78EBH	30956				Order #15	0% / +65535%	0.01%	F10	R	
78ECH	30957				Order #16	0% / +65535%	0.01%	F10	R	
78EDH	30958				Order #17	0% / +65535%	0.01%	F10	R	
78EEH	30959				Order #18	0% / +65535%	0.01%	F10	R	
78EFH	30960				Order #19	0% / +65535%	0.01%	F10	R	
78F0H	30961				Order #20	0% / +65535%	0.01%	F10	R	
78F1H	30962				Order #21	0% / +65535%	0.01%	F10	R	
78F2H	30963				Order #22	0% / +65535%	0.01%	F10	R	
78F3H	30964				Order #23	0% / +65535%	0.01%	F10	R	
78F4H	30965				Order #24	0% / +65535%	0.01%	F10	R	
78F5H	30966				Order #25	0% / +65535%	0.01%	F10	R	
78F6H	30967				Order #26	0% / +65535%	0.01%	F10	R	
78F7H	30968				Order #27	0% / +65535%	0.01%	F10	R	
78F8H	30969				Order #28	0% / +65535%	0.01%	F10	R	
78F9H	30970				Order #29	0% / +65535%	0.01%	F10	R	
78FAH	30971				Order #30	0% / +65535%	0.01%	F10	R	
78FBH	30972				Order #31	0% / +65535%	0.01%	F10	R	
78FCH	30973				Order #32	0% / +65535%	0.01%	F10	R	
78FDH	30974				Order #33	0% / +65535%	0.01%	F10	R	
78FEH	30975				Order #34	0% / +65535%	0.01%	F10	R	
78FFH	30976				Order #35	0% / +65535%	0.01%	F10	R	
7900H	30977				Order #36	0% / +65535%	0.01%	F10	R	
7901H	30978				Order #37	0% / +65535%	0.01%	F10	R	
7902H	30979				Order #38	0% / +65535%	0.01%	F10	R	
7903H	30980				Order #39	0% / +65535%	0.01%	F10	R	
7904H	30981				Order #40	0% / +65535%	0.01%	F10	R	
7905H	30982				Order #41	0% / +65535%	0.01%	F10	R	
7906H	30983				Order #42	0% / +65535%	0.01%	F10	R	
7907H	30984				Order #43	0% / +65535%	0.01%	F10	R	
7908H	30985				Order #44	0% / +65535%	0.01%	F10	R	
7909H	30986				Order #45	0% / +65535%	0.01%	F10	R	
790AH	30987				Order #46	0% / +65535%	0.01%	F10	R	
790BH	30988				Order #47	0% / +65535%	0.01%	F10	R	
790CH	30989				Order #48	0% / +65535%	0.01%	F10	R	
790DH	30990				Order #49	0% / +65535%	0.01%	F10	R	
790EH	30991				Order #50	0% / +65535%	0.01%	F10	R	
790FH	30992				Order #51	0% / +65535%	0.01%	F10	R	
7910H	30993				Threshold Enable Channel #			F108	R	
7911H	30994				Mains Signalling Threshold	0% / +65535%	0.01%	F10	R	
7912H	30995				Mains Signalling Interharmonics Bin Start Number			F51		
7913H-791FH	30996-31008				Mains Signalling Interharmonics Bin Start Number			F51		
Overvoltage (Phase to Earth) Threshold										
7920H	31009				Phase N-E Voltage Setpoint	0.00 / +655.35	Volts		R	
7921H	31010				Phase A-E Voltage Setpoint	0.00 / +655.35	Volts		R	
7922H	31011				Phase B-E Voltage Setpoint	0.00 / +655.35	Volts		R	
7923H	31012				Phase C-E Voltage Setpoint	0.00 / +655.35	Volts		R	
7924H	31013				MSB Byte[1]: Allowed Long Interruption in a Year. Range from 0 to 100. Values>100 are equal to 100. Byte[0]: Rapid Voltage Change Data Source 0 = 10/12 Cycles Update RMS 1 = 1 Cycles Update RMS 2-255 = 10/12 Cycles Update RMS			F112	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
7925H	31014				MSB Byte[1]: Supply Voltage Unbalance Upper Limit. 0 = Less than or equal to 2% 1 = Less than or equal to 3% 2-255 = Less than or equal to 2% Byte[0]: Voltage Dip Concern Threshold Phase A see detail on modbus register below			F112	R	
7926H	31015				MSB Byte[1]: Voltage Dip Concern Threshold Phase B Byte[0]: Voltage Dip Concern Threshold Phase C 0 = Greater than or equal to 10% 1 = Greater than or equal to 15% 2 = Greater than or equal to 20% 3 = Greater than or equal to 30% 4 = Greater than or equal to 40% 5 = Greater than or equal to 50% 6 = Greater than or equal to 60% 7 = Greater than or equal to 70% 8 = Greater than or equal to 85% 9-255 = Greater than or equal to 85%			F112	R	
7927H	31016				MSB Byte[1]: First Day of Week 0 = Sunday 1 = Monday 2-255 = Sunday Byte[0]: Not Defined			F112	R	
7928H	31017				Sliding Reference Usr Sag/Swell Enable for Voltage			F77	R	
7929H	31018				Sliding Reference Usr Sag/Swell Enable for Current			F78	R	
Interval Maximum/Minimum/Average										
792AH	31019				Reserved			F112	R	
792BH-7FFF	31021-32768				Not Defined				R	
TOU Status Section										
8800H	34817				TOU Status bits: -aaa ttts ssdd mmmm aaa=active schedule(0-7), tt=current tier(1-4), sss=current season(1-4), dd=current daytype(0-3), mmmm=current month(1-12)			F112	R	continue block for 32bytes
8801H	34818				TOU profile update count since meter startup			F51	R	
8802H-8805H	34819-34822				Last TOU profile update time since meter startup			F3	R	
8806H	34823				reserved			F51	R	
8807H	34824				Detailed TOU status, when bit is set in the bit mask 0x8000=TOU is ready and running 0x4000=TOU is initializing 0x2000=TOU is in self-read mode 0x1000=TOU is in manual read mode 0x0800=Season block is customized as Weekly self-read 0x0400=Season block is customized as Daily self-read 0x0200=TOU profile update and re-initialization of TOU 0x0008=Error, block window average not triggered on time internal in meter profile 0x0004=Meter profile has errors 0x0002=TOU profile validation found errors 0x0001=TOU profile has errors			F51	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
8808H	34825				TOU Profile validation errors, when bit is set in the bit mask 0x0800=no schedule specified 0x0400=bad schedule in annual profile 0x0200=day type too big 0x0100=number used exceeded 0x0080=unsupported calendar format 0x0040=repeat is zero 0x0020=unsupported built-in day 0x0010=bad day of week 0x0008=week too big 0x0004=bad day in every month 0x0002=bad day of month 0x0001=month too big			F51	R	
8809H	34826				TOU profile update status code 0=No error/Update Idle 0xFFFF=Meter is checking the TOU profile, set by meter after meter received all data 1=TOU update profile length error 2=TOU update profile header error 3=TOU update profile invalid device type 4=TOU update profile checksum error 5=TOU update profile validation failed			F51	R	
880AH-880FH	34827-34832				reserved			F51	R	
TOU Profile Section										
8810H-8817H	34833-34840				TOU profile header			F2	R/W	continue block for 1768 byte
8818H	34841				TOU profile version			F51	R/W	
8819H	34842				reserved			F51	R/W	
881AH-881BH	34843-34844				TOU profile length			F53	R/W	
881CH-881FH	34845-34848				TOU profile modified date/time			F3	R/W	
8820H-8823H	34849-34852				reserved			F51	R/W	
8824H-882BH	34853-34860				TOU target device ID string			F2	R/W	
882CH	34861				TOU demand type 0=Sliding Window, 1=Block Window			F51	R/W	
882DH	34862				TOU demand interval, seconds			F51	R/W	
882EH-8835H	34863-34870				Scaled energy format IDs, byte array 0 to 15, for TOU energy accumulators in data sets 1 to 16. Value 0=no scaled energy format used. Valid scaled energy formats are 1-52			F47/F49	R/W	
8836H-883DH	34871-34878				Data Set Coincident Demand Type IDs, byte array 0 to 15, for coincident demand in data set 1 to 16. Value of 0=no type is assigned, and thus meter will not apply PTCT multiplying factors. Valid settings are from 1-30			F47/F49	R/W	
883EH-884FH	34879-34896				reserved			F51	R/W	
8850H-8A11H	34897-35346				Calendar entries 3 registers (6 bytes) each, 150 entries total			F123	R/W	
8A12H-8A43H	35347-35396				Tier Change List 50 entries total			F124	R/W	
8A44H-8A4BH	35397-35404				Schedule Indexs array 0-49			F119	R/W	
8A4CH-8A52H	35405-35411				Day type assignments 7 entries, 1st= Sun type...7th=Sat type value 0-3			F51	R/W	
8A53H-8A62H	35412-35427				Annual Profile 4x4 table of seasons vs. day types. Data specifies the schedule to use for all days of that type in a given season. First 4 registers are Season 0, next 4 are Season 1, etc. Registers 1 to 4 within a season block are for Holiday, Day Type 1, Day Type 2 and Day Type 3. Assigning 16 to unused cells is recommended.			F51	R/W	
8A63H	35428				Accumulator #1 Register Identifier (Data's Modbus register address)			F51	R/W	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
8A64H	35429				Peak Demand Register #1 Identifier (Data's Modbus register address)			F51	R/W	
8A65H	35430				Coincident Demand Register #1 Identifier (Data's Modbus register address)			R51	R/W	
8A66H	35431				Monitored Data Set #1 Options			F125	R/W	
8A67H-8A6EH	35432-35439				Label for Data Set #1			F2	R/W	
8A6FH-8A76H	35440-35447				Label for Accumulator of set #1			F2	R/W	
8A77H-8A7EH	35448-35455				Label for Peak Demand of set #1			F2	R/W	
8A7FH-8A86H	35456-35463				Label for Coincident Demand of set #1			F2	R/W	
8A87H-8A8EH	35464-35471				Label for Cumulative Demand of set #1			F2	R/W	
8A8FH-8D22H	35472-36131				Definition of Monitored Data Sets #2 - #16				R/W	
8D23H-8D2AH	36132-36139				reserved			F51	R/W	
8D2BH-8D42H	36140-36163				Label for day types 1, 2, 3			F2	R/W	
8D43H-8D4AH	36164-36171				Label for total tier			F2	R/W	
8D4BH-8D6AH	36172-36203				Labels for tiers 1 - 4			F2	R/W	
8D6BH-8E62H	36204-36451				Labels for holidays 1 - 31			F2	R/W	
8E63H-8EC2H	36452-36547				Labels for months 1 - 12			F2	R/W	
8EC3H-8EE2H	36548-36579				Labels for seasons 1 - 4			F2	R/W	
8EE3H	36580				Month Self Read Time of Day high byte is hour (0-23), low byte is minute (5, 15, 30, 60); must be aligned with the demand interval			F112	R/W	
8EE4H	36581				Season Self Read Time of Day high byte is hour (0-23), low byte is minute (5, 15, 30, 60); must be aligned with the demand interval			F112	R/W	
8EE5H	36582				Number of months If number of months = 0, all month data will be month 1; similarly if number of seasons = 0, all season data will be season 1.			F51	R/W	
8EE6H	36583				Number of seasons If number of months = 0, all month data will be month 1; similarly if number of seasons = 0, all season data will be season 1.			F51	R/W	
8EE7H	36584				Number of day types			F51	R/W	
8EE8H	36585				TOU Option bits 0x0001= for customized weekly and daily self-read setup (breaks the linke between season and month data)			F51	R/W	
8EE9H-8EEFH	36586-36592				reserved			F51	R/W	
8EF0H-8EF6H	36593-36599				TOU profile footer			F51	R/W	
8EF7H	36600				TOU profile checksum CRC16, MSB first			F51	R/W	
8EF8H-8F7FH	36601-36736				reserved			F51	R	
Historical Log 1 Snapshot Header										
9000H-9001H	36865-36866				Historical Log 1 Snapshot Memory Size	4,294,967,295 bytes / 0 bytes	1 byte		R	
9002H	36867				Historical Log 1 Snapshot Record Size	65535 bytes / 0 bytes	1 byte		R	
9003H	36868				Historical Log 1 Snapshot First Index	record 65535 / record 0	1 record		R	
9004H	36869				Historical Log 1 Snapshot Last Index	record 65535 / record 0	1 record		R	
9005H-9008H	36870-36873				Historical Log 1 Snapshot First Time Stamp	12/31/9999 23:59:59.99	10 msec		R	
9009H-900CH	36874-36877				Historical Log 1 Snapshot Last Time Stamp	12/31/9999 23:59:59.99	10 msec		R	
900DH-9010H	36878-36881				Historical Log 1 Snapshot Valid Bitmap				R	
9011H	36882				Historical Log 1 Max Records	65535 records / 0 records	1 record		R	
9012H	36883				Historical Log 1 Reset Status					
Historical Log 2 Snapshot Header										
9040H-9041H	36929-36930				Historical Log 2 Snapshot Memory Size	4,294,967,295 bytes / 0 bytes	1 byte		R	
9042H	36931				Historical Log 2 Snapshot Record Size	65535 bytes / 0 bytes	1 byte		R	
9043H	36932				Historical Log 2 Snapshot First Index	record 65535 / record 0	1 record		R	
9044H	36933				Historical Log 2 Snapshot Last Index	record 65535 / record 0	1 record		R	
9045H-9048H	36934-36937				Historical Log 2 Snapshot First Time Stamp	12/31/9999 23:59:59.99	10 msec		R	
9049H-904CH	36938-36941				Historical Log 2 Snapshot Last Time Stamp	12/31/9999 23:59:59.99	10 msec		R	
904DH-9050H	36942-36945				Historical Log 2 Snapshot Valid Bitmap				R	
9051H	36946				Historical Log 2 Max Records	65535 records / 0 records	1 record		R	
9052H	36947				Historical Log 2 Reset Status					

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
System Event Log Header										
9280H-9281H	37505-37506				System Event Log Memory Size	4,294,967,295 bytes / 0 bytes	1 byte		R	
9282H	37507				System Event Log Record Size	65535 bytes / 0 bytes	1 byte		R	
9283H	37508				System Event Log First Index	record 65535 / record 0	1 record		R	
9284H	37509				System Event Log Last Index	record 65535 / record 0	1 record		R	
9285H-9288H	37510-37513				System Event Log First Time Stamp	12/31/9999 23:59:59.99	10 msec		R	
9289H-928CH	37514-37517				System Event Log Last Time Stamp	12/31/9999 23:59:59.99	10 msec		R	
928DH-9290H	37518-37521				System Event Log Valid Bitmap				R	
9291H	37522				System Event Log Max Records	65535 records / 0 records	1 record		R	
9292H	37523				System Event Log Reset Status				R	
Window Index Block										
9500H	38145				Window Index for Historical Log 1	record 65535 / record 0	1 record		R/W	
9501H	38146				Window Index for Historical Log 2	record 65535 / record 0	1 record		R/W	
950AH	38155				Window Index for System Event Log	record 65535 / record 0	1 record		R/W	
Window Mode Block										
9540H	38209				Window Mode for Historical Log 1				R/W	Ch.5
9541H	38210				Window Mode for Historical Log 2				R/W	Ch.5
954AH	38219				Window Mode for System Event Log				R/W	Ch.5
Window Block										
9580H-95BFH	38273-38336				Historical Log 1 Window				R	Ch.5
95C0H-95FFH	38337-38400				Historical Log 2 Window				R	Ch.5
9800H-983FH	38913-38976				System Event Log Window				R	Ch.5
Auto Increment Window Block										
99FEH	39423				Auto Increment Configuration				R/W	Ch.5
99FFH	39424				Auto Increment Window Index				R/W	Ch.5
9A00H-9A3FH	39425-39488				Auto Increment Log Window				R	Ch.5
Port Control Block										
A300H	41729				Port Control Command				W	Ch.5
A301H-A303H	41730-41732				Port Control Lock States				R	Ch.5
A304H	41733				Port Control Pointer RecIn Comm 4	byte 511 / byte 0	1 byte		R/W	Ch.5
A305H	41734				Port Control Pointer RecOut Comm 4	byte 511 / byte 0	1 byte		R/W	Ch.5
A306H	41735				Port Control Pointer TrmIn Comm 4	byte 511 / byte 0	1 byte		R/W	Ch.5
A307H	41736				Port Control Pointer TrmOut Comm 4	byte 511 / byte 0	1 byte		R/W	Ch.5
A308H	41737				Port Control Pointer RecIn Comm 3	byte 511 / byte 0	1 byte		R/W	Ch.5
A309H	41738				Port Control Pointer RecOut Comm 3	byte 511 / byte 0	1 byte		R/W	Ch.5
A30AH	41739				Port Control Pointer TrmIn Comm 3	byte 511 / byte 0	1 byte		R/W	Ch.5
A30BH	41740				Port Control Pointer TrmOut Comm 3	byte 511 / byte 0	1 byte		R/W	Ch.5
A30CH	41741				Port Control Pointer RecIn Comm 2	byte 511 / byte 0	1 byte		R/W	Ch.5
A30DH	41742				Port Control Pointer RecOut Comm 2	byte 511 / byte 0	1 byte		R/W	Ch.5
A30EH	41743				Port Control Pointer TrmIn Comm 2	byte 511 / byte 0	1 byte		R/W	Ch.5
A30FH	41744				Port Control Pointer TrmOut Comm 2	byte 511 / byte 0	1 byte		R/W	Ch.5
A310H	41745				Port Control Pointer RecIn Comm 1 (232/485)	byte 511 / byte 0	1 byte		R/W	Ch.5
A311H	41746				Port Control Pointer RecOut Comm 1 (232/485)	byte 511 / byte 0	1 byte		R/W	Ch.5
A312H	41747				Port Control Pointer TrmIn Comm 1 (232/485)	byte 511 / byte 0	1 byte		R/W	Ch.5
A313H	41748				Port Control Pointer TrmOut Comm 1 (232/485)	byte 511 / byte 0	1 byte		R/W	Ch.5
A314H	41749				Port Control Pointer RecIn Comm Reserved (DIAG)	byte 511 / byte 0	1 byte		R/W	Ch.5
A315H	41750				Port Control Pointer RecOut Comm Reserved (DIAG)	byte 511 / byte 0	1 byte		R/W	Ch.5
A316H	41751				Port Control Pointer TrmIn Comm Reserved (DIAG)	byte 511 / byte 0	1 byte		R/W	Ch.5
A317H	41752				Port Control Pointer TrmOut Comm Reserved (DIAG)	byte 511 / byte 0	1 byte		R/W	Ch.5
A318H	41753				Port and Buffer Selection				R/W	Ch.5
A400H-A5FFH	41985-42496				Communication Buffer				R/W	Ch.5
ADC0H-ADFFH	44481-44544				Reserved				R	
Test Mode: Preset Enrgy Update										
AE00H	44545				Preset Energy File Block Index				W	
AE01H-AE20H	44546-44577				Preset Energy File Block				W	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
AE21H	44578				R: Preset Energy File Update Status: 0x0000 - Update file not allowed 0x0001 - Update file start 0x0002 - Update file progress 0x0003 - Update file success 0x0004 - Update file fail(bad format) 0x0005 - Update file fail(bad crc) 0x0006 - Update file fail(timeout) 0xFFFF - Update file allow W: Preset Energy File checksum				R/W	
Programmable Settings Block 1 (Range: B000H - CFFFH)										
Communication Settings Block										
B000H	45057				Address, Port 4 (I/O)				R	
B001H	45058				Protocol & Baud Rate, Port 4 (I/O)				R	
B002H	45059				Parity & Stop Bits, Port 4 (I/O)				R	
B003H	45060				Data Bits & Response Delay, Port 4(I/O)				R	
B004H	45061				Address, Port 3				R	
B005H	45062				Protocol & Baud Rate, Port 3				R	
B006H	45063				Parity & Stop Bits, Port 3				R	
B007H	45064				Data Bits & Response Delay, Port 3				R	
B008H	45065				Address, Port 2				R	
B009H	45066				Protocol & Baud Rate, Port 2				R	
B00AH	45067				Parity & Stop Bits, Port 2				R	
B00BH	45068				Data Bits & Response Delay, Port 2				R	
B00CH	45069				Address, Port 1 (232/485)				R	
B00DH	45070				Protocol & Baud Rate, Port 1 (232/485)				R	
B00EH	45071				Parity & Stop Bits, Port 1 (232/485)				R	
B00FH	45072				Data Bits & Response Delay, Port 1 (232/485)				R	
B010H	45073				Port 4 (I/O) Mode / Port 3 Mode				R	
B011H	45074				Port 2 Mode / Port 1 Mode				R	
B012H	45075				Reserved					
B013H	45076				Reserved					
Limit Settings Block										
B014H	45077				Line Number, Limit 1				R	
B015H	45078				Point Number and SAB, Limit 1				R	
B016H	45079				Value 1, Limit 1				R	
B017H	45080				Value 2, Limit 1				R	
B018H	45081				Line Number, Limit 2				R	
B019H	45082				Point Number and SAB, Limit 2				R	
B01AH	45083				Value 1, Limit 2				R	
B01BH	45084				Value 2, Limit 2				R	
B01CH	45085				Line Number, Limit 3				R	
B01DH	45086				Point Number and SAB, Limit 3				R	
B01EH	45087				Value 1, Limit 3				R	
B01FH	45088				Value 2, Limit 3				R	
B020H	45089				Line Number, Limit 4				R	
B021H	45090				Point Number and SAB, Limit 4				R	
B022H	45091				Value 1, Limit 4				R	
B023H	45092				Value 2, Limit 4				R	
B024H	45093				Line Number, Limit 5				R	
B025H	45094				Point Number and SAB, Limit 5				R	
B026H	45095				Value 1, Limit 5				R	
B027H	45096				Value 2, Limit 5				R	
B028H	45097				Line Number, Limit 6				R	
B029H	45098				Point Number and SAB, Limit 6				R	
B02AH	45099				Value 1, Limit 6				R	
B02BH	45100				Value 2, Limit 6				R	
B02CH	45101				Line Number, Limit 7				R	
B02DH	45102				Point Number and SAB, Limit 7				R	
B02EH	45103				Value 1, Limit 7				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B02FH	45104				Value 2, Limit 7				R	
B030H	45105				Line Number, Limit 8				R	
B031H	45106				Point Number and SAB, Limit 8				R	
B032H	45107				Value 1, Limit 8				R	
B033H	45108				Value 2, Limit 8				R	
B034H	45109				Line Number, Limit 9				R	
B035H	45110				Point Number and SAB, Limit 9				R	
B036H	45111				Value 1, Limit 9				R	
B037H	45112				Value 2, Limit 9				R	
B038H	45113				Line Number, Limit 10				R	
B039H	45114				Point Number and SAB, Limit 10				R	
B03AH	45115				Value 1, Limit 10				R	
B03BH	45116				Value 2, Limit 10				R	
B03CH	45117				Line Number, Limit 11				R	
B03DH	45118				Point Number and SAB, Limit 11				R	
B03EH	45119				Value 1, Limit 11				R	
B03FH	45120				Value 2, Limit 11				R	
B040H	45121				Line Number, Limit 12				R	
B041H	45122				Point Number and SAB, Limit 12				R	
B042H	45123				Value 1, Limit 12				R	
B043H	45124				Value 2, Limit 12				R	
B044H	45125				Line Number, Limit 13				R	
B045H	45126				Point Number and SAB, Limit 13				R	
B046H	45127				Value 1, Limit 13				R	
B047H	45128				Value 2, Limit 13				R	
B048H	45129				Line Number, Limit 14				R	
B049H	45130				Point Number and SAB, Limit 14				R	
B04AH	45131				Value 1, Limit 14				R	
B04BH	45132				Value 2, Limit 14				R	
B04CH	45133				Line Number, Limit 15				R	
B04DH	45134				Point Number and SAB, Limit 15				R	
B04EH	45135				Value 1, Limit 15				R	
B04FH	45136				Value 2, Limit 15				R	
B050H	45137				Line Number, Limit 16				R	
B051H	45138				Point Number and SAB, Limit 16				R	
B052H	45139				Value 1, Limit 16				R	
B053H	45140				Value 2, Limit 16				R	
B054H	45141				Line Number, Limit 17				R	
B055H	45142				Point Number and SAB, Limit 17				R	
B056H	45143				Value 1, Limit 17				R	
B057H	45144				Value 2, Limit 17				R	
B058H	45145				Line Number, Limit 18				R	
B059H	45146				Point Number and SAB, Limit 18				R	
B05AH	45147				Value 1, Limit 18				R	
B05BH	45148				Value 2, Limit 18				R	
B05CH	45149				Line Number, Limit 19				R	
B05DH	45150				Point Number and SAB, Limit 19				R	
B05EH	45151				Value 1, Limit 19				R	
B05FH	45152				Value 2, Limit 19				R	
B060H	45153				Line Number, Limit 20				R	
B061H	45154				Point Number and SAB, Limit 20				R	
B062H	45155				Value 1, Limit 20				R	
B063H	45156				Value 2, Limit 20				R	
B064H	45157				Line Number, Limit 21				R	
B065H	45158				Point Number and SAB, Limit 21				R	
B066H	45159				Value 1, Limit 21				R	
B067H	45160				Value 2, Limit 21				R	
B068H	45161				Line Number, Limit 22				R	
B069H	45162				Point Number and SAB, Limit 22				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B06AH	45163				Value 1, Limit 22				R	
B06BH	45164				Value 2, Limit 22				R	
B06CH	45165				Line Number, Limit 23				R	
B06DH	45166				Point Number and SAB, Limit 23				R	
B06EH	45167				Value 1, Limit 23				R	
B06FH	45168				Value 2, Limit 23				R	
B070H	45169				Line Number, Limit 24				R	
B071H	45170				Point Number and SAB, Limit 24				R	
B072H	45171				Value 1, Limit 24				R	
B073H	45172				Value 2, Limit 24				R	
B074H	45173				Line Number, Limit 25				R	
B075H	45174				Point Number and SAB, Limit 25				R	
B076H	45175				Value 1, Limit 25				R	
B077H	45176				Value 2, Limit 25				R	
B078H	45177				Line Number, Limit 26				R	
B079H	45178				Point Number and SAB, Limit 26				R	
B07AH	45179				Value 1, Limit 26				R	
B07BH	45180				Value 2, Limit 26				R	
B07CH	45181				Line Number, Limit 27				R	
B07DH	45182				Point Number and SAB, Limit 27				R	
B07EH	45183				Value 1, Limit 27				R	
B07FH	45184				Value 2, Limit 27				R	
B080H	45185				Line Number, Limit 28				R	
B081H	45186				Point Number and SAB, Limit 28				R	
B082H	45187				Value 1, Limit 28				R	
B083H	45188				Value 2, Limit 28				R	
B084H	45189				Line Number, Limit 29				R	
B085H	45190				Point Number and SAB, Limit 29				R	
B086H	45191				Value 1, Limit 29				R	
B087H	45192				Value 2, Limit 29				R	
B088H	45193				Line Number, Limit 30				R	
B089H	45194				Point Number and SAB, Limit 30				R	
B08AH	45195				Value 1, Limit 30				R	
B08BH	45196				Value 2, Limit 30				R	
B08CH	45197				Line Number, Limit 31				R	
B08DH	45198				Point Number and SAB, Limit 31				R	
B08EH	45199				Value 1, Limit 31				R	
B08FH	45200				Value 2, Limit 31				R	
B090H	45201				Line Number, Limit 32				R	
B091H	45202				Point Number and SAB, Limit 32				R	
B092H	45203				Value 1, Limit 32				R	
B093H	45204				Value 2, Limit 32				R	
Historical Log Settings Block										
B094H	45205				Line Number, Historical Log 1, Parameter 1				R	
B095H	45206				Point Number, Historical Log 1, Parameter 1				R	
B096H	45207				Line Number, Historical Log 1, Parameter 2				R	
B097H	45208				Point Number, Historical Log 1, Parameter 2				R	
B098H	45209				Line Number, Historical Log 1, Parameter 3				R	
B099H	45210				Point Number, Historical Log 1, Parameter 3				R	
B09AH	45211				Line Number, Historical Log 1, Parameter 4				R	
B09BH	45212				Point Number, Historical Log 1, Parameter 4				R	
B09CH	45213				Line Number, Historical Log 1, Parameter 5				R	
B09DH	45214				Point Number, Historical Log 1, Parameter 5				R	
B09EH	45215				Line Number, Historical Log 1, Parameter 6				R	
B09FH	45216				Point Number, Historical Log 1, Parameter 6				R	
B0A0H	45217				Line Number, Historical Log 1, Parameter 7				R	
B0A1H	45218				Point Number, Historical Log 1, Parameter 7				R	
B0A2H	45219				Line Number, Historical Log 1, Parameter 8				R	
B0A3H	45220				Point Number, Historical Log 1, Parameter 8				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B0A4H	45221				Line Number, Historical Log 1, Parameter 9				R	
B0A5H	45222				Point Number, Historical Log 1, Parameter 9				R	
B0A6H	45223				Line Number, Historical Log 1, Parameter 10				R	
B0A7H	45224				Point Number, Historical Log 1, Parameter 10				R	
B0A8H	45225				Line Number, Historical Log 1, Parameter 11				R	
B0A9H	45226				Point Number, Historical Log 1, Parameter 11				R	
B0AAH	45227				Line Number, Historical Log 1, Parameter 12				R	
B0ABH	45228				Point Number, Historical Log 1, Parameter 12				R	
B0ACH	45229				Line Number, Historical Log 1, Parameter 13				R	
B0ADH	45230				Point Number, Historical Log 1, Parameter 13				R	
B0AEH	45231				Line Number, Historical Log 1, Parameter 14				R	
B0AFH	45232				Point Number, Historical Log 1, Parameter 14				R	
B0B0H	45233				Line Number, Historical Log 1, Parameter 15				R	
B0B1H	45234				Point Number, Historical Log 1, Parameter 15				R	
B0B2H	45235				Line Number, Historical Log 1, Parameter 16				R	
B0B3H	45236				Point Number, Historical Log 1, Parameter 16				R	
B0B4H	45237				Line Number, Historical Log 1, Parameter 17				R	
B0B5H	45238				Point Number, Historical Log 1, Parameter 17				R	
B0B6H	45239				Line Number, Historical Log 1, Parameter 18				R	
B0B7H	45240				Point Number, Historical Log 1, Parameter 18				R	
B0B8H	45241				Line Number, Historical Log 1, Parameter 19				R	
B0B9H	45242				Point Number, Historical Log 1, Parameter 19				R	
B0BAH	45243				Line Number, Historical Log 1, Parameter 20				R	
B0BBH	45244				Point Number, Historical Log 1, Parameter 20				R	
B0BCH	45245				Line Number, Historical Log 1, Parameter 21				R	
B0BDH	45246				Point Number, Historical Log 1, Parameter 21				R	
B0BEH	45247				Line Number, Historical Log 1, Parameter 22				R	
B0BFH	45248				Point Number, Historical Log 1, Parameter 22				R	
B0C0H	45249				Line Number, Historical Log 1, Parameter 23				R	
B0C1H	45250				Point Number, Historical Log 1, Parameter 23				R	
B0C2H	45251				Line Number, Historical Log 1, Parameter 24				R	
B0C3H	45252				Point Number, Historical Log 1, Parameter 24				R	
B0C4H	45253				Line Number, Historical Log 1, Parameter 25				R	
B0C5H	45254				Point Number, Historical Log 1, Parameter 25				R	
B0C6H	45255				Line Number, Historical Log 1, Parameter 26				R	
B0C7H	45256				Point Number, Historical Log 1, Parameter 26				R	
B0C8H	45257				Line Number, Historical Log 1, Parameter 27				R	
B0C9H	45258				Point Number, Historical Log 1, Parameter 27				R	
B0CAH	45259				Line Number, Historical Log 1, Parameter 28				R	
B0CBH	45260				Point Number, Historical Log 1, Parameter 28				R	
B0CCH	45261				Line Number, Historical Log 1, Parameter 29				R	
B0CDH	45262				Point Number, Historical Log 1, Parameter 29				R	
B0CEH	45263				Line Number, Historical Log 1, Parameter 30				R	
B0CFH	45264				Point Number, Historical Log 1, Parameter 30				R	
B0D0H	45265				Line Number, Historical Log 1, Parameter 31				R	
B0D1H	45266				Point Number, Historical Log 1, Parameter 31				R	
B0D2H	45267				Line Number, Historical Log 1, Parameter 32				R	
B0D3H	45268				Point Number, Historical Log 1, Parameter 32				R	
B0D4H	45269				Line Number, Historical Log 1, Parameter 33				R	
B0D5H	45270				Point Number, Historical Log 1, Parameter 33				R	
B0D6H	45271				Line Number, Historical Log 1, Parameter 34				R	
B0D7H	45272				Point Number, Historical Log 1, Parameter 34				R	
B0D8H	45273				Line Number, Historical Log 1, Parameter 35				R	
B0D9H	45274				Point Number, Historical Log 1, Parameter 35				R	
B0DAH	45275				Line Number, Historical Log 1, Parameter 36				R	
B0DBH	45276				Point Number, Historical Log 1, Parameter 36				R	
B0DCH	45277				Line Number, Historical Log 1, Parameter 37				R	
B0DDH	45278				Point Number, Historical Log 1, Parameter 37				R	
B0DEH	45279				Line Number, Historical Log 1, Parameter 38				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B0DFH	45280				Point Number, Historical Log 1, Parameter 38				R	
B0E0H	45281				Line Number, Historical Log 1, Parameter 39				R	
B0E1H	45282				Point Number, Historical Log 1, Parameter 39				R	
B0E2H	45283				Line Number, Historical Log 1, Parameter 40				R	
B0E3H	45284				Point Number, Historical Log 1, Parameter 40				R	
B0E4H	45285				Line Number, Historical Log 1, Parameter 41				R	
B0E5H	45286				Point Number, Historical Log 1, Parameter 41				R	
B0E6H	45287				Line Number, Historical Log 1, Parameter 42				R	
B0E7H	45288				Point Number, Historical Log 1, Parameter 42				R	
B0E8H	45289				Line Number, Historical Log 1, Parameter 43				R	
B0E9H	45290				Point Number, Historical Log 1, Parameter 43				R	
B0EAH	45291				Line Number, Historical Log 1, Parameter 44				R	
B0EBH	45292				Point Number, Historical Log 1, Parameter 44				R	
B0ECH	45293				Line Number, Historical Log 1, Parameter 45				R	
B0EDH	45294				Point Number, Historical Log 1, Parameter 45				R	
B0EEH	45295				Line Number, Historical Log 1, Parameter 46				R	
B0EFH	45296				Point Number, Historical Log 1, Parameter 46				R	
B0F0H	45297				Line Number, Historical Log 1, Parameter 47				R	
B0F1H	45298				Point Number, Historical Log 1, Parameter 47				R	
B0F2H	45299				Line Number, Historical Log 1, Parameter 48				R	
B0F3H	45300				Point Number, Historical Log 1, Parameter 48				R	
B0F4H	45301				Line Number, Historical Log 1, Parameter 49				R	
B0F5H	45302				Point Number, Historical Log 1, Parameter 49				R	
B0F6H	45303				Line Number, Historical Log 1, Parameter 50				R	
B0F7H	45304				Point Number, Historical Log 1, Parameter 50				R	
B0F8H	45305				Line Number, Historical Log 1, Parameter 51				R	
B0F9H	45306				Point Number, Historical Log 1, Parameter 51				R	
B0FAH	45307				Line Number, Historical Log 1, Parameter 52				R	
B0FBH	45308				Point Number, Historical Log 1, Parameter 52				R	
B0FCH	45309				Line Number, Historical Log 1, Parameter 53				R	
B0FDH	45310				Point Number, Historical Log 1, Parameter 53				R	
B0FEH	45311				Line Number, Historical Log 1, Parameter 54				R	
B0FFH	45312				Point Number, Historical Log 1, Parameter 54				R	
B100H	45313				Line Number, Historical Log 1, Parameter 55				R	
B101H	45314				Point Number, Historical Log 1, Parameter 55				R	
B102H	45315				Line Number, Historical Log 1, Parameter 56				R	
B103H	45316				Point Number, Historical Log 1, Parameter 56				R	
B104H	45317				Line Number, Historical Log 1, Parameter 57				R	
B105H	45318				Point Number, Historical Log 1, Parameter 57				R	
B106H	45319				Line Number, Historical Log 1, Parameter 58				R	
B107H	45320				Point Number, Historical Log 1, Parameter 58				R	
B108H	45321				Line Number, Historical Log 1, Parameter 59				R	
B109H	45322				Point Number, Historical Log 1, Parameter 59				R	
B10AH	45323				Line Number, Historical Log 1, Parameter 60				R	
B10BH	45324				Point Number, Historical Log 1, Parameter 60				R	
B10CH	45325				Line Number, Historical Log 1, Parameter 61				R	
B10DH	45326				Point Number, Historical Log 1, Parameter 61				R	
B10EH	45327				Line Number, Historical Log 1, Parameter 62				R	
B10FH	45328				Point Number, Historical Log 1, Parameter 62				R	
B110H	45329				Line Number, Historical Log 1, Parameter 63				R	
B111H	45330				Point Number, Historical Log 1, Parameter 63				R	
B112H	45331				Line Number, Historical Log 1, Parameter 64				R	
B113H	45332				Point Number, Historical Log 1, Parameter 64				R	
B114H	45333				Line Number, Historical Log 2, Parameter 1				R	
B115H	45334				Point Number, Historical Log 2, Parameter 1				R	
B116H	45335				Line Number, Historical Log 2, Parameter 2				R	
B117H	45336				Point Number, Historical Log 2, Parameter 2				R	
B118H	45337				Line Number, Historical Log 2, Parameter 3				R	
B119H	45338				Point Number, Historical Log 2, Parameter 3				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B11AH	45339				Line Number, Historical Log 2, Parameter 4				R	
B11BH	45340				Point Number, Historical Log 2, Parameter 4				R	
B11CH	45341				Line Number, Historical Log 2, Parameter 5				R	
B11DH	45342				Point Number, Historical Log 2, Parameter 5				R	
B11EH	45343				Line Number, Historical Log 2, Parameter 6				R	
B11FH	45344				Point Number, Historical Log 2, Parameter 6				R	
B120H	45345				Line Number, Historical Log 2, Parameter 7				R	
B121H	45346				Point Number, Historical Log 2, Parameter 7				R	
B122H	45347				Line Number, Historical Log 2, Parameter 8				R	
B123H	45348				Point Number, Historical Log 2, Parameter 8				R	
B124H	45349				Line Number, Historical Log 2, Parameter 9				R	
B125H	45350				Point Number, Historical Log 2, Parameter 9				R	
B126H	45351				Line Number, Historical Log 2, Parameter 10				R	
B127H	45352				Point Number, Historical Log 2, Parameter 10				R	
B128H	45353				Line Number, Historical Log 2, Parameter 11				R	
B129H	45354				Point Number, Historical Log 2, Parameter 11				R	
B12AH	45355				Line Number, Historical Log 2, Parameter 12				R	
B12BH	45356				Point Number, Historical Log 2, Parameter 12				R	
B12CH	45357				Line Number, Historical Log 2, Parameter 13				R	
B12DH	45358				Point Number, Historical Log 2, Parameter 13				R	
B12EH	45359				Line Number, Historical Log 2, Parameter 14				R	
B12FH	45360				Point Number, Historical Log 2, Parameter 14				R	
B130H	45361				Line Number, Historical Log 2, Parameter 15				R	
B131H	45362				Point Number, Historical Log 2, Parameter 15				R	
B132H	45363				Line Number, Historical Log 2, Parameter 16				R	
B133H	45364				Point Number, Historical Log 2, Parameter 16				R	
B134H	45365				Line Number, Historical Log 2, Parameter 17				R	
B135H	45366				Point Number, Historical Log 2, Parameter 17				R	
B136H	45367				Line Number, Historical Log 2, Parameter 18				R	
B137H	45368				Point Number, Historical Log 2, Parameter 18				R	
B138H	45369				Line Number, Historical Log 2, Parameter 19				R	
B139H	45370				Point Number, Historical Log 2, Parameter 19				R	
B13AH	45371				Line Number, Historical Log 2, Parameter 20				R	
B13BH	45372				Point Number, Historical Log 2, Parameter 20				R	
B13CH	45373				Line Number, Historical Log 2, Parameter 21				R	
B13DH	45374				Point Number, Historical Log 2, Parameter 21				R	
B13EH	45375				Line Number, Historical Log 2, Parameter 22				R	
B13FH	45376				Point Number, Historical Log 2, Parameter 22				R	
B140H	45377				Line Number, Historical Log 2, Parameter 23				R	
B141H	45378				Point Number, Historical Log 2, Parameter 23				R	
B142H	45379				Line Number, Historical Log 2, Parameter 24				R	
B143H	45380				Point Number, Historical Log 2, Parameter 24				R	
B144H	45381				Line Number, Historical Log 2, Parameter 25				R	
B145H	45382				Point Number, Historical Log 2, Parameter 25				R	
B146H	45383				Line Number, Historical Log 2, Parameter 26				R	
B147H	45384				Point Number, Historical Log 2, Parameter 26				R	
B148H	45385				Line Number, Historical Log 2, Parameter 27				R	
B149H	45386				Point Number, Historical Log 2, Parameter 27				R	
B14AH	45387				Line Number, Historical Log 2, Parameter 28				R	
B14BH	45388				Point Number, Historical Log 2, Parameter 28				R	
B14CH	45389				Line Number, Historical Log 2, Parameter 29				R	
B14DH	45390				Point Number, Historical Log 2, Parameter 29				R	
B14EH	45391				Line Number, Historical Log 2, Parameter 30				R	
B14FH	45392				Point Number, Historical Log 2, Parameter 30				R	
B150H	45393				Line Number, Historical Log 2, Parameter 31				R	
B151H	45394				Point Number, Historical Log 2, Parameter 31				R	
B152H	45395				Line Number, Historical Log 2, Parameter 32				R	
B153H	45396				Point Number, Historical Log 2, Parameter 32				R	
B154H	45397				Line Number, Historical Log 2, Parameter 33				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B155H	45398				Point Number, Historical Log 2, Parameter 33				R	
B156H	45399				Line Number, Historical Log 2, Parameter 34				R	
B157H	45400				Point Number, Historical Log 2, Parameter 34				R	
B158H	45401				Line Number, Historical Log 2, Parameter 35				R	
B159H	45402				Point Number, Historical Log 2, Parameter 35				R	
B15AH	45403				Line Number, Historical Log 2, Parameter 36				R	
B15BH	45404				Point Number, Historical Log 2, Parameter 36				R	
B15CH	45405				Line Number, Historical Log 2, Parameter 37				R	
B15DH	45406				Point Number, Historical Log 2, Parameter 37				R	
B15EH	45407				Line Number, Historical Log 2, Parameter 38				R	
B15FH	45408				Point Number, Historical Log 2, Parameter 38				R	
B160H	45409				Line Number, Historical Log 2, Parameter 39				R	
B161H	45410				Point Number, Historical Log 2, Parameter 39				R	
B162H	45411				Line Number, Historical Log 2, Parameter 40				R	
B163H	45412				Point Number, Historical Log 2, Parameter 40				R	
B164H	45413				Line Number, Historical Log 2, Parameter 41				R	
B165H	45414				Point Number, Historical Log 2, Parameter 41				R	
B166H	45415				Line Number, Historical Log 2, Parameter 42				R	
B167H	45416				Point Number, Historical Log 2, Parameter 42				R	
B168H	45417				Line Number, Historical Log 2, Parameter 43				R	
B169H	45418				Point Number, Historical Log 2, Parameter 43				R	
B16AH	45419				Line Number, Historical Log 2, Parameter 44				R	
B16BH	45420				Point Number, Historical Log 2, Parameter 44				R	
B16CH	45421				Line Number, Historical Log 2, Parameter 45				R	
B16DH	45422				Point Number, Historical Log 2, Parameter 45				R	
B16EH	45423				Line Number, Historical Log 2, Parameter 46				R	
B16FH	45424				Point Number, Historical Log 2, Parameter 46				R	
B170H	45425				Line Number, Historical Log 2, Parameter 47				R	
B171H	45426				Point Number, Historical Log 2, Parameter 47				R	
B172H	45427				Line Number, Historical Log 2, Parameter 48				R	
B173H	45428				Point Number, Historical Log 2, Parameter 48				R	
B174H	45429				Line Number, Historical Log 2, Parameter 49				R	
B175H	45430				Point Number, Historical Log 2, Parameter 49				R	
B176H	45431				Line Number, Historical Log 2, Parameter 50				R	
B177H	45432				Point Number, Historical Log 2, Parameter 50				R	
B178H	45433				Line Number, Historical Log 2, Parameter 51				R	
B179H	45434				Point Number, Historical Log 2, Parameter 51				R	
B17AH	45435				Line Number, Historical Log 2, Parameter 52				R	
B17BH	45436				Point Number, Historical Log 2, Parameter 52				R	
B17CH	45437				Line Number, Historical Log 2, Parameter 53				R	
B17DH	45438				Point Number, Historical Log 2, Parameter 53				R	
B17EH	45439				Line Number, Historical Log 2, Parameter 54				R	
B17FH	45440				Point Number, Historical Log 2, Parameter 54				R	
B180H	45441				Line Number, Historical Log 2, Parameter 55				R	
B181H	45442				Point Number, Historical Log 2, Parameter 55				R	
B182H	45443				Line Number, Historical Log 2, Parameter 56				R	
B183H	45444				Point Number, Historical Log 2, Parameter 56				R	
B184H	45445				Line Number, Historical Log 2, Parameter 57				R	
B185H	45446				Point Number, Historical Log 2, Parameter 57				R	
B186H	45447				Line Number, Historical Log 2, Parameter 58				R	
B187H	45448				Point Number, Historical Log 2, Parameter 58				R	
B188H	45449				Line Number, Historical Log 2, Parameter 59				R	
B189H	45450				Point Number, Historical Log 2, Parameter 59				R	
B18AH	45451				Line Number, Historical Log 2, Parameter 60				R	
B18BH	45452				Point Number, Historical Log 2, Parameter 60				R	
B18CH	45453				Line Number, Historical Log 2, Parameter 61				R	
B18DH	45454				Point Number, Historical Log 2, Parameter 61				R	
B18EH	45455				Line Number, Historical Log 2, Parameter 62				R	
B18FH	45456				Point Number, Historical Log 2, Parameter 62				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B190H	45457				Line Number, Historical Log 2, Parameter 63				R	
B191H	45458				Point Number, Historical Log 2, Parameter 63				R	
B192H	45459				Line Number, Historical Log 2, Parameter 64				R	
B193H	45460				Point Number, Historical Log 2, Parameter 64				R	
B194H	45461				Snapshot Interval, Historical Log 1	3600/0	1 second		R	
B195H	45462				Snapshot Interval, Historical Log 2	3600/0	1 second		R	
B196H	45463				Record Size, Historical Log 1				R	
B197H	45464				Record Size, Historical Log 2				R	
Waveform/CBEMA Settings Block										
B198H	45465				Phase A-N Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B199H	45466				Phase B-N Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B19AH	45467				Phase C-N Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B19BH	45468				Phase A-B Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B19CH	45469				Phase B-C Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B19DH	45470				Phase C-A Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B19EH	45471				Phase X-N Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B19FH	45472				Phase N-E Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B1A0H	45473				Phase A-E Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B1A1H	45474				Phase B-E Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B1A2H	45475				Phase C-E Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B1A3H	45476				Phase X-E Voltage Below Setpoint	+327.67% / -327.68%	0.01%		R	
B1A4H	45477				Phase A-N Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1A5H	45478				Phase B-N Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1A6H	45479				Phase C-N Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1A7H	45480				Phase A-B Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1A8H	45481				Phase B-C Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1A9H	45482				Phase C-A Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1AAH	45483				Phase X-N Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1ABH	45484				Phase N-E Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1ACH	45485				Phase A-E Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1ADH	45486				Phase B-E Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1AEH	45487				Phase C-E Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1AFH	45488				Phase X-E Voltage Above Setpoint	+327.67% / -327.68%	0.01%		R	
B1B0H	45489				Phase A Current Below Setpoint					
B1B1H	45490				Phase B Current Below Setpoint					
B1B2H	45491				Phase C Current Below Setpoint					
B1B3H	45492				Phase X Current Below Setpoint					
B1B4H	45493				Phase A Current Above Setpoint					
B1B5H	45494				Phase B Current Above Setpoint					
B1B6H	45495				Phase C Current Above Setpoint					
B1B7H	45496				Phase X Current Above Setpoint					
B1B8H	45497				Voltage RMS Sag/Swell					
B1B9H	45498				Voltage Wave shape					
B1BAH	45499				Current RMS Sag/Swell					
B1BBH	45500				Current RMS Chng ROR					
High Speed Input Settings Block										
B1BCH-B1C3H	45501-45508				Input 1 Name				R	
B1C4H-B1CBH	45509-45516				Input 1 Open Label				R	
B1CCH-B1D3H	45517-45524				Input 1 Close Label				R	
B1D4H-B1D5H	45525-45526				Input 1 Value				R	
B1D6H	45527				Input 1 Mode				R	
B1D7H	45528				Reserved					
B1D8H-B1DFH	45529-45536				Input 2 Name				R	
B1E0H-B1E7H	45537-45544				Input 2 Open Label				R	
B1ESH-B1EFH	45545-45552				Input 2 Close Label				R	
B1F0H-B1F1H	45553-45554				Input 2 Value				R	
B1F2H	45555				Input 2 Mode				R	
B1F3H	45556				Reserved					
B1F4H-B1FBH	45557-45564				Input 3 Name				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B1FCH-B203H	45565-45572				Input 3 Open Label				R	
B204H-B20BH	45573-45580				Input 3 Close Label				R	
B20CH-B20DH	45581-45582				Input 3 Value				R	
B20EH	45583				Input 3 Mode				R	
B20FH	45584				Reserved					
B210H-B217H	45585-45592				Input 4 Name				R	
B218H-B21FH	45593-45600				Input 4 Open Label				R	
B220H-B227H	45601-45608				Input 4 Close Label				R	
B228H-B229H	45609-45610				Input 4 Value				R	
B22AH	45611				Input 4 Mode				R	
B22BH	45612				Reserved					
B22CH-B233H	45613-45620				Input 5 Name				R	
B234H-B23BH	45621-45628				Input 5 Open Label				R	
B23CH-B243H	45629-45636				Input 5 Close Label				R	
B244H-B245H	45637-45638				Input 5 Value				R	
B246H	45639				Input 5 Mode				R	
B247H	45640				Reserved					
B248H-B24FH	45641-45648				Input 6 Name				R	
B250H-B257H	45649-45656				Input 6 Open Label				R	
B258H-B25FH	45657-45664				Input 6 Close Label				R	
B260H-B261H	45665-45666				Input 6 Value				R	
B262H	45667				Input 6 Mode				R	
B263H	45668				Reserved					
B264H-B26BH	45669-45676				Input 7 Name				R	
B26CH-B273H	45677-45684				Input 7 Open Label				R	
B274H-B27BH	45685-45692				Input 7 Close Label				R	
B27CH-B27DH	45693-45694				Input 7 Value				R	
B27EH	45695				Input 7 Mode				R	
B27FH	45696				Reserved					
B280H-B287H	45697-45704				Input 8 Name				R	
B288H-B28FH	45705-45712				Input 8 Open Label				R	
B290H-B297H	45713-45720				Input 8 Close Label				R	
B298H-B299H	45721-45722				Input 8 Value				R	
B29AH	45723				Input 8 Mode				R	
B29BH	45724				Reserved				R	
B29CH-B29FH	45725-45728				Reserved				R	
External Digital Output Module Settings Block										
B2A0H	45729				Address, External Digital Output Module 1				R	
B2A1H-B2A3H	45730-45732				Reserved					
B2A4H	45733				Line Number, Relay 1, External Digital Output Module 1				R	
B2A5H	45734				Point Number, Relay 1, External Digital Output Module 1				R	
B2A6H	45735				Line Number, Relay 2, External Digital Output Module 1				R	
B2A7H	45736				Point Number, Relay 2, External Digital Output Module 1				R	
B2A8H	45737				Line Number, Relay 3, External Digital Output Module 1				R	
B2A9H	45738				Point Number, Relay 3, External Digital Output Module 1				R	
B2AAH	45739				Line Number, Relay 4, External Digital Output Module 1				R	
B2ABH	45740				Point Number, Relay 4, External Digital Output Module 1				R	
B2ACH	45741				Line Number, Relay 5, External Digital Output Module 1				R	
B2ADH	45742				Point Number, Relay 5, External Digital Output Module 1				R	
B2AEH	45743				Line Number, Relay 6, External Digital Output Module 1				R	
B2AFH	45744				Point Number, Relay 6, External Digital Output Module 1				R	
B2B0H	45745				Line Number, Relay 7, External Digital Output Module 1				R	
B2B1H	45746				Point Number, Relay 7, External Digital Output Module 1				R	
B2B2H	45747				Line Number, Relay 8, External Digital Output Module 1				R	
B2B3H	45748				Point Number, Relay 8, External Digital Output Module 1				R	
B2B4H	45749				Address, External Digital Output Module 2				R	
B2B5H-B2B7H	45750-45752				Reserved					
B2B8H	45753				Line Number, Relay 1, External Digital Output Module 2				R	
B2B9H	45754				Point Number, Relay 1, External Digital Output Module 2				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B2BAH	45755				Line Number, Relay 2, External Digital Output Module 2				R	
B2BBH	45756				Point Number, Relay 2, External Digital Output Module 2				R	
B2BCH	45757				Line Number, Relay 3, External Digital Output Module 2				R	
B2BDH	45758				Point Number, Relay 3, External Digital Output Module 2				R	
B2BEH	45759				Line Number, Relay 4, External Digital Output Module 2				R	
B2BFH	45760				Point Number, Relay 4, External Digital Output Module 2				R	
B2C0H	45761				Line Number, Relay 5, External Digital Output Module 2				R	
B2C1H	45762				Point Number, Relay 5, External Digital Output Module 2				R	
B2C2H	45763				Line Number, Relay 6, External Digital Output Module 2				R	
B2C3H	45764				Point Number, Relay 6, External Digital Output Module 2				R	
B2C4H	45765				Line Number, Relay 7, External Digital Output Module 2				R	
B2C5H	45766				Point Number, Relay 7, External Digital Output Module 2				R	
B2C6H	45767				Line Number, Relay 8, External Digital Output Module 2				R	
B2C7H	45768				Point Number, Relay 8, External Digital Output Module 2				R	
B2C8H	45769				Address, External Digital Output Module 3				R	
B2C9H-B2CBH	45770-45772				Reserved					
B2CCH	45773				Line Number, Relay 1, External Digital Output Module 3				R	
B2CDH	45774				Point Number, Relay 1, External Digital Output Module 3				R	
B2CEH	45775				Line Number, Relay 2, External Digital Output Module 3				R	
B2CFH	45776				Point Number, Relay 2, External Digital Output Module 3				R	
B2D0H	45777				Line Number, Relay 3, External Digital Output Module 3				R	
B2D1H	45778				Point Number, Relay 3, External Digital Output Module 3				R	
B2D2H	45779				Line Number, Relay 4, External Digital Output Module 3				R	
B2D3H	45780				Point Number, Relay 4, External Digital Output Module 3				R	
B2D4H	45781				Line Number, Relay 5, External Digital Output Module 3				R	
B2D5H	45782				Point Number, Relay 5, External Digital Output Module 3				R	
B2D6H	45783				Line Number, Relay 6, External Digital Output Module 3				R	
B2D7H	45784				Point Number, Relay 6, External Digital Output Module 3				R	
B2D8H	45785				Line Number, Relay 7, External Digital Output Module 3				R	
B2D9H	45786				Point Number, Relay 7, External Digital Output Module 3				R	
B2DAH	45787				Line Number, Relay 8, External Digital Output Module 3				R	
B2DBH	45788				Point Number, Relay 8, External Digital Output Module 3				R	
B2DCH	45789				Address, External Digital Output Module 4				R	
B2DDH-B2DFH	45790-45792				Reserved					
B2E0H	45793				Line Number, Relay 1, External Digital Output Module 4				R	
B2E1H	45794				Point Number, Relay 1, External Digital Output Module 4				R	
B2E2H	45795				Line Number, Relay 2, External Digital Output Module 4				R	
B2E3H	45796				Point Number, Relay 2, External Digital Output Module 4				R	
B2E4H	45797				Line Number, Relay 3, External Digital Output Module 4				R	
B2E5H	45798				Point Number, Relay 3, External Digital Output Module 4				R	
B2E6H	45799				Line Number, Relay 4, External Digital Output Module 4				R	
B2E7H	45800				Point Number, Relay 4, External Digital Output Module 4				R	
B2E8H	45801				Line Number, Relay 5, External Digital Output Module 4				R	
B2E9H	45802				Point Number, Relay 5, External Digital Output Module 4				R	
B2EAH	45803				Line Number, Relay 6, External Digital Output Module 4				R	
B2EBH	45804				Point Number, Relay 6, External Digital Output Module 4				R	
B2ECH	45805				Line Number, Relay 7, External Digital Output Module 4				R	
B2EDH	45806				Point Number, Relay 7, External Digital Output Module 4				R	
B2EEH	45807				Line Number, Relay 8, External Digital Output Module 4				R	
B2EFH	45808				Point Number, Relay 8, External Digital Output Module 4				R	
B2F0H-B2F3H	45809-45812				Reserved				R	
External Analog Output Module Settings Block										
B2F4H	45813				Address, External Analog Output Module 1				R	
B2F5H-B2F7H	45814-45816				Reserved					
B2F8H	45817				Line Number, Relay 1, External Analog Output Module 1				R	
B2F9H	45818				Point Number, Relay 1, External Digital Output Module 1				R	
B2FAH	45819				Line Number, Relay 2, External Analog Output Module 1				R	
B2FBH	45820				Point Number, Relay 2, External Digital Output Module 1				R	
B2FCH	45821				Line Number, Relay 3, External Analog Output Module 1				R	
B2FDH	45822				Point Number, Relay 3, External Digital Output Module 1				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B2FEH	45823				Line Number, Relay 4, External Analog Output Module 1				R	
B2FFH	45824				Point Number, Relay 4, External Digital Output Module 1				R	
B300H	45825				Line Number, Relay 5, External Analog Output Module 1				R	
B301H	45826				Point Number, Relay 5, External Digital Output Module 1				R	
B302H	45827				Line Number, Relay 6, External Analog Output Module 1				R	
B303H	45828				Point Number, Relay 6, External Digital Output Module 1				R	
B304H	45829				Line Number, Relay 7, External Analog Output Module 1				R	
B305H	45830				Point Number, Relay 7, External Digital Output Module 1				R	
B306H	45831				Line Number, Relay 8, External Analog Output Module 1				R	
B307H	45832				Point Number, Relay 8, External Digital Output Module 1				R	
B308H	45833				Address, External Analog Output Module 2				R	
B309H-B30BH	45834-45836				Reserved					
B30CH	45837				Line Number, Relay 1, External Analog Output Module 2				R	
B32DH	45870				Point Number, Relay 1, External Digital Output Module 2				R	
B30EH	45839				Line Number, Relay 2, External Analog Output Module 2				R	
B30FH	45840				Point Number, Relay 2, External Digital Output Module 2				R	
B310H	45841				Line Number, Relay 3, External Analog Output Module 2				R	
B311H	45842				Point Number, Relay 3, External Digital Output Module 2				R	
B312H	45843				Line Number, Relay 4, External Analog Output Module 2				R	
B313H	45844				Point Number, Relay 4, External Digital Output Module 2				R	
B314H	45845				Line Number, Relay 5, External Analog Output Module 2				R	
B315H	45846				Point Number, Relay 5, External Digital Output Module 2				R	
B316H	45847				Line Number, Relay 6, External Analog Output Module 2				R	
B317H	45848				Point Number, Relay 6, External Digital Output Module 2				R	
B318H	45849				Line Number, Relay 7, External Analog Output Module 2				R	
B319H	45850				Point Number, Relay 7, External Digital Output Module 2				R	
B31AH	45851				Line Number, Relay 8, External Analog Output Module 2				R	
B31BH	45852				Point Number, Relay 8, External Digital Output Module 2				R	
B31CH	45853				Address, External Analog Output Module 3				R	
B31DH-B31FH	45854-45856				Reserved					
B320H	45857				Line Number, Relay 1, External Analog Output Module 3				R	
B321H	45858				Point Number, Relay 1, External Digital Output Module 3				R	
B322H	45859				Line Number, Relay 2, External Analog Output Module 3				R	
B323H	45860				Point Number, Relay 2, External Digital Output Module 3				R	
B324H	45861				Line Number, Relay 3, External Analog Output Module 3				R	
B325H	45862				Point Number, Relay 3, External Digital Output Module 3				R	
B326H	45863				Line Number, Relay 4, External Analog Output Module 3				R	
B327H	45864				Point Number, Relay 4, External Digital Output Module 3				R	
B328H	45865				Line Number, Relay 5, External Analog Output Module 3				R	
B329H	45866				Point Number, Relay 5, External Digital Output Module 3				R	
B32AH	45867				Line Number, Relay 6, External Analog Output Module 3				R	
B32BH	45868				Point Number, Relay 6, External Digital Output Module 3				R	
B32CH	45869				Line Number, Relay 7, External Analog Output Module 3				R	
B32DH	45870				Point Number, Relay 7, External Digital Output Module 3				R	
B32EH	45871				Line Number, Relay 8, External Analog Output Module 3				R	
B32FH	45872				Point Number, Relay 8, External Digital Output Module 3				R	
B330H	45873				Address, External Analog Output Module 4				R	
B331H-B333H	45874-45876				Reserved					
B334H	45877				Line Number, Relay 1, External Analog Output Module 4				R	
B335H	45878				Point Number, Relay 1, External Digital Output Module 4				R	
B336H	45879				Line Number, Relay 2, External Analog Output Module 4				R	
B337H	45880				Point Number, Relay 2, External Digital Output Module 4				R	
B338H	45881				Line Number, Relay 3, External Analog Output Module 4				R	
B339H	45882				Point Number, Relay 3, External Digital Output Module 4				R	
B33AH	45883				Line Number, Relay 4, External Analog Output Module 4				R	
B33BH	45884				Point Number, Relay 4, External Digital Output Module 4				R	
B33CH	45885				Line Number, Relay 5, External Analog Output Module 4				R	
B33DH	45886				Point Number, Relay 5, External Digital Output Module 4				R	
B33EH	45887				Line Number, Relay 6, External Analog Output Module 4				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B33FH	45888				Point Number, Relay 6, External Digital Output Module 4				R	
B340H	45889				Line Number, Relay 7, External Analog Output Module 4				R	
B341H	45890				Point Number, Relay 7, External Digital Output Module 4				R	
B342H	45891				Line Number, Relay 8, External Analog Output Module 4				R	
B343H	45892				Point Number, Relay 8, External Digital Output Module 4				R	
External KYZ Output Module Settings Block										
B344H	45893				Address, External KYZ Output Module 1				R	
B345H	45894				Energy Assignment, Relay 1-2, External KYZ Output Module 1				R	
B346H	45895				Energy Assignment, Relay 3-4, External KYZ Output Module 1				R	
B347H	45896				Reserved					
B348H	45897				Address, External KYZ Output Module 2				R	
B349H	45898				Energy Assignment, Relay 1-2, External KYZ Output Module 2				R	
B34AH	45899				Energy Assignment, Relay 3-4, External KYZ Output Module 2				R	
B34BH	45900				Reserved					
B34CH	45901				Address, External KYZ Output Module 3				R	
B34DH	45902				Energy Assignment, Relay 1-2, External KYZ Output Module 3				R	
B34EH	45903				Energy Assignment, Relay 3-4, External KYZ Output Module 3				R	
B34FH	45904				Reserved					
B350H	45905				Address, External KYZ Output Module 4				R	
B351H	45906				Energy Assignment, Relay 1-2, External KYZ Output Module 4				R	
B352H	45907				Energy Assignment, Relay 3-4, External KYZ Output Module 4				R	
B353H	45908				Reserved					
CT & PT Ratio Settings Block										
B354H-B355H	45909-45910				Phase Current CT Ratio Numerator	+999,999.99 / +0.01	1/100 A pri		R	
B356H-B357H	45911-45912				Phase Current CT Ratio Denominator	+999,999.99 / +0.01	1/100 A sec		R	
B358H-B359H	45913-45914				Measured Neutral Current CT Ratio Numerator	+999,999.99 / +0.01	1/100 A pri		R	
B35AH-B35BH	45915-45916				Measured Neutral Current CT Ratio Denominator	+999,999.99 / +0.01	1/100 A sec		R	
B35CH-B35DH	45917-45918				Phase Voltage PT Ratio Numerator	+999,999.99 / +0.01	1/100 V pri		R	
B35EH-B35FH	45919-45920				Phase Voltage PT Ratio Denominator	+999,999.99 / +0.01	1/100 V sec		R	
B360H-B361H	45921-45922				Auxiliary Voltage PT Ratio Numerator	+999,999.99 / +0.01	1/100 V pri		R	
B362H-B363H	45923-45924				Auxiliary Voltage PT Ratio Denominator	+999,999.99 / +0.01	1/100 V sec		R	
Hookup and Time Settings Block										
B364H	45925				Hookup				R	
B365H	45926				Frequency & Time Zone Hour Selection				R	
B366H	45927				MSB First, Byte[1]: Time Zone Half Hour Byte[0]: Daylight Savings Time Enable 0 = DST Enabled 1 = Auto DST 2 = User defined 3 = Auto DST/US EPA 2005				R	
B367H	45928				Transformer Loss Compensation (TLC) & Internal KYZ Form				R	
B368H-B36BH	45930-45932				Daylight Savings Time Start				R	
B36CH-B36FH	45934-45936				Daylight Savings Time End				R	
B370H-B371H	45937-45938				% Loss of Watts due to Iron (TLC)				R	
B372H-B373H	45939-45940				% Loss of Watts due to Copper (TLC)				R	
B374H-B375H	45941-45942				% Loss of VAR due to Iron (TLC)				R	
B376H-B377H	45943-45944				% Loss of VAR due to Copper (TLC)				R	
B378H-B37BH	45945-45948				Reserved					
Average Settings Block										
B37CH	45949				Thermal and Block Averaging Time Interval	65535 / 0	1 second		R	
B37DH	45950				Rolling Averaging Sub-Interval	65535 / 0	1 second		R	
B37EH	45951				Reserved					

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B37FH	45952				Rolling Sub-Intervals / Time of Use Log Enable	1-255/not used			R	
Exception Profile Block										
B380H-B38FH	45953-45968				Reserved					
Device Label Settings Block										
B390H-B397H	45969-45976				Meter Designation				R	
B398H-B39FH	45977-45984				Auxiliary Voltage Label (1250 only)				R	
B3A0H-B3A7H	45985-45992				Measured Neutral Current Label				R	
Network Settings Block										
B3A8H-B3A9H	45993-45994				IP Address				R	
B3AAH-B3ABH	45995-45996				Subnet Mask				R	
B3ACH-B3ADH	45997-45998				Default Gateway				R	
B3AEH	45999				Port 2 Baud Rate / Gateway Delay				R	
B3AFH	46000				Mode/ Mode 2				R	
B3B0H-B3B7H	46001-46008				Computer Name				R	
B3B8H-B3B9H	46009-46010				DNS Server 1 IP Address				R	
B3BAH-B3BBH	46011-46012				DNS Server 2 IP Address				R	
B3BCH-B3BDH	46013-46014				Server / Service Enable Bits. MSB first, Bit[31-30] = Reserved Bit[29] = GE-EGD Data Port Enabled Bit[28] = WEB Server Enabled Bit[27] = SMTP Client Enabled Bit[26] = FTP Server Enabled Bit[25] = FTP Client Enabled Bit[24-21] = Reserved Bit[20] = SNTP Enabled Bit[19] = IEC 61850 Server Enabled Bit[18] = IEC 61850 Goose Enabled Bit[17-0] = Unused					
B3BEH	46015				Email Port Number					
B3BFH	46016				FTP Port Number					
Block Window Average External Synchronization Block										
B3C0H	46017				BWA Synch Enable / BWA Synch Mask				R	
Display Configuration Block										
B3C1H	46018				Display Configuration				R	
Energy Direction Block										
B3C2H	46019				Received Energy Direction/Power Factor labeling				R	
Test Mode Configuration Block										
B3C3H	46020				Test Mode Exit Delay Time MSB First: MSB: 0 - 60 = 0 - 60 minutes 61 - 255 = undefined LSB: undefined					
Full Scale Block										
B3C4H-B3C5H	46021-46022				Full Scale Phase Current	65535 / 0	1 / 65536		R	
B3C6H-B3C7H	46023-46024				Full Scale Measured Neutral Current	65535 / 0	1 / 65536		R	
B3C8H-B3C9H	46025-46026				Full Scale Phase-to-Neutral Voltage	65535 / 0	1 / 65536		R	
B3CAH-B3CBH	46027-46028				Full Scale Auxiliary Voltage	65535 / 0	1 / 65536		R	
B3CCH-B3CDH	46029-46030				Full Scale Phase-To-Phase Voltage	65535 / 0	1 / 65536		R	
B3CEH-B3CFH	46031-46032				Full Scale Phase Power	65535 / 0	1 / 65536		R	
B3D0H-B3D1H	46033-46034				Full Scale Total Power	65535 / 0	1 / 65536		R	
B3D2H-B3D3H	46035-46036				Full Scale Frequency	65535 / 0	1 / 65536		R	
B3D4H-B3D5H	46037-46038				Full Scale Phase-To-Earth Voltage					
B3D6H-B3D7H	46039-46040				Full Scale XE Voltage					
B3D8H-B3D9H	46041-46042				Full Scale NE Voltage					
B3DAH-B3E3H	46043-46052				Reserved					
External Module Software Interface Block										
B3E4H	46053				External Module 1 & 2 Type				R	
B3E5H	46054				External Module 3 & 4 Type				R	
B3E6H	46055				External Module 5 & 6 Type				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B3E7H	46056				External Module 7 & 8 Type				R	
B3E8H	46057				External Module 9 & 10 Type				R	
B3E9H	46058				External Module 11 & 12 Type				R	
B3EAH	46059				External Module 13 & 14 Type				R	
B3EBH	46060				External Module 15 & 16 Type				R	
B3ECH	46061				External Module 1 & 2 Slot				R	
B3EDH	46062				External Module 3 & 4 Slot				R	
B3EEH	46063				External Module 5 & 6 Slot				R	
B3EFH	46064				External Module 7 & 8 Slot				R	
B3F0H	46065				External Module 9 & 10 Slot				R	
B3F1H	46066				External Module 11 & 12 Slot				R	
B3F2H	46067				External Module 13 & 14 Slot				R	
B3F3H	46068				External Module 15 & 16 Slot				R	
B3F4H-B3FBH	46069-46076				External Module 1 Label				R	
B3FCH-B403H	46077-46084				External Module 2 Label				R	
B404H-B40BH	46085-46092				External Module 3 Label				R	
B40CH-B413H	46093-46100				External Module 4 Label				R	
B414H-B41BH	46101-46108				External Module 5 Label				R	
B41CH-B423H	46109-46116				External Module 6 Label				R	
B424H-B42BH	46117-46124				External Module 7 Label				R	
B24CH-B433H	46125-46132				External Module 8 Label				R	
B434H-B43BH	46133-46140				External Module 9 Label				R	
B43CH-B443H	46141-46148				External Module 10 Label				R	
B444H-B44BH	46149-46156				External Module 11 Label				R	
B44CH-B453H	46157-46164				External Module 12 Label				R	
B454H-B45BH	46165-46172				External Module 13 Label				R	
B45CH-B463H	46173-46180				External Module 14 Label				R	
B464H-B46BH	46181-46188				External Module 15 Label				R	
B46CH-B473H	46189-46196				External Module 16 Label				R	
External Module Port Assignment Block										
B474H-B475H	46197				Reserved				R	
B476H	46199				Digital Output Module 1 & 2 Port Assignment				R	
B477H	46200				Digital Output Module 3 & 4 Port Assignment				R	
B478H-B479H	46201				Reserved				R	
B47AH	46203				Analog Output Module 1 & 2 Port Assignment				R	
B47BH	46204				Analog Output Module 3 & 4 Port Assignment				R	
B47CH	46205				KYZ Output Module 1 & 2 Port Assignment				R	
B47DH	46206				KYZ Output Module 3 & 4 Port Assignment				R	
Manual Control Relay Block										
B47EH	46207				Manual Control Relay Settings				R	
B47FH	46208				Reserved				R	
Internal Input Pulse Accumulation Scale Factor Block										
B480H-B481H	46209-46210				Internal Input 1 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B482H-B483H	46211-46212				Internal Input 2 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B484H-B485H	46213-46214				Internal Input 3 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B486H-B487H	46215-46216				Internal Input 4 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B488H-B489H	46217-46218				Internal Input 5 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B48AH-B48BH	46219-46220				Internal Input 6 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B48CH-B48DH	46221-46222				Internal Input 7 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B48EH-B48FH	46223-46224				Internal Input 8 Pulse Accumulation Scale Factor	4294967295 / 0			R	
B490H	46225				Internal Input 1 & 2 Pulse Accumulation Aggregator Assignment				R	
B491H	46226				Internal Input 3 & 4 Pulse Accumulation Aggregator Assignment				R	
B492H	46227				Internal Input 5 & 6 Pulse Accumulation Aggregator Assignment				R	
B493H	46228				Internal Input 7 & 8 Pulse Accumulation Aggregator Assignment				R	
B494H-B49BH	46229-46236				Internal Input 1 Pulse Accumulation Label			F2	R	
B49CH-B4A3H	46237-46244				Internal Input 2 Pulse Accumulation Label			F2	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B4A4H-B4ABH	46245-46252				Internal Input 3 Pulse Accumulation Label			F2	R	
B4ACH-B4B3H	46253-46260				Internal Input 4 Pulse Accumulation Label			F2	R	
B4B4H-B4BBH	46261-46268				Internal Input 5 Pulse Accumulation Label			F2	R	
B4BCH-B4C3H	46269-46276				Internal Input 6 Pulse Accumulation Label			F2	R	
B4C4H-B4CBH	46277-46284				Internal Input 7 Pulse Accumulation Label			F2	R	
B4CCH-B4D3H	46285-46292				Internal Input 8 Pulse Accumulation Label			F2	R	
B4D4H-B4DBH	46293-46300				Internal Input Pulse Aggregation 1 Label			F2	R	
B4DCH-B4E3H	46301-46308				Internal Input Pulse Aggregation 2 Label			F2	R	
B4E4H-B4EBH	46309-46316				Internal Input Pulse Aggregation 3 Label			F2	R	
B4ECH-B4F3H	46317-46324				Internal Input Pulse Aggregation 4 Label			F2	R	
B4F4H	46325				Nexus Watthour Selection / Aggregation Assignment				R	
I ² t and V ² t Threshold Block										
B4F5H-B4F6H	46326-46327				I ² t Threshold				R	
B4F7H-B4F8H	46328-46329				V ² t Threshold				R	
Internal KYZ Settings Block										
B4F9H	46330				Internal KYZ Pulse Width (Relay 1-Pulse 1/ Relay 2-Pulse 2)				R	
B4FAH	46331				Internal KYZ Pulse Width (Relay 3/ Relay 4)				R	
B4FBH	46332				Reserved / Internal KYZ Channel Select (Relay 1-Pulse 1)				R	
B4FCH	46333				Internal KYZ Channel Select (Relay 2-Pulse 2/ Relay 3)				R	
B4FDH	46334				Internal KHZ Channel Select (Relay 4/ Reserved)				R	
B4FEH-B4FFH	46335-46336				Internal KYZ Watthour Per Pulse (Relay 1-Pulse 1)				R	
B500H-B501H	46337-46338				Internal KYZ Watthour Per Pulse (Relay 2-Pulse 2)				R	
B502H-B503H	46339-46340				Internal KYZ Watthour Per Pulse (Relay 3)				R	
B504H-B505H	46341-46342				Internal KYZ Watthour Per Pulse (Relay 4)				R	
B506H-B507H	46343-46344				Reserved				R	
B508H	46345				Internal KYZ enable/ End of Interval Pulse enable				R	
B509H	46346				End of Interval Pulse (Relay, Width)				R	
B50AH	46347				Cold Load Delay / Cumulative Demand Settings				R	
B50BH	46348				Short Term Flicker Interval / Long Term Flicker Interval				R	
B50CH	46349				Flicker Voltage Adaptor Level				R	
B50DH	46350				Flicker Base Frequency/Min power off				R	
B50EH	46351				Block Average Cont.					
B50FH	46352				Accum Mode/Reserved					
B510H	46353				Block Window Max/Min Interval 1				R	
B511H	46354				Block Window Max/Min Interval 2				R	
B512H-B523H	46355-46372				Reserved				R	
Internal Input Pulse Accumulation Unit Label Block										
B524H-B527H	46373-46376				Internal Input 1 Pulse Accumulation Unit Label			F2	R	
B528H-B52BH	46377-46380				Internal Input 2 Pulse Accumulation Unit Label			F2	R	
B52CH-B52FH	46381-46384				Internal Input 3 Pulse Accumulation Unit Label			F2	R	
B530H-B533H	46385-46388				Internal Input 4 Pulse Accumulation Unit Label			F2	R	
B534H-B537H	46389-46392				Internal Input 5 Pulse Accumulation Unit Label			F2	R	
B538H-B53BH	46393-46396				Internal Input 6 Pulse Accumulation Unit Label			F2	R	
B53CH-B53FH	46397-46400				Internal Input 7 Pulse Accumulation Unit Label			F2	R	
B540H-B543H	46401-46404				Internal Input 8 Pulse Accumulation Unit Label			F2	R	
B544H-B547H	46405-46408				Internal Input Pulse Aggregation 1 Unit Label			F2	R	
B548H-B54BH	46409-46412				Internal Input Pulse Aggregation 2 Unit Label			F2	R	
B54CH-B54FH	46413-46416				Internal Input Pulse Aggregation 3 Unit Label			F2	R	
B550H-B553H	46417-46420				Internal Input Pulse Aggregation 4 Unit Label			F2	R	
ElectroLogic Block										
B554H-B555H	46421-46422				Relay 1 Combination Tree Input Line 1, Point 1				R	
B556H-B557H	46423-46424				Relay 1 Combination Tree Input Line 2, Point 2				R	
B558H-B559H	46425-46426				Relay 1 Combination Tree Input Line 3, Point 3				R	
B55AH-B55BH	46427-46428				Relay 1 Combination Tree Input Line 4, Point 4				R	
B55CH-B55DH	46429-46430				Relay 1 Combination Tree Input Line 5, Point 5				R	
B55EH-B55FH	46431-46432				Relay 1 Combination Tree Input Line 6, Point 6				R	
B560H-B561H	46433-46434				Relay 1 Combination Tree Input Line 7, Point 7				R	
B562H-B563H	46435-46436				Relay 1 Combination Tree Input Line 8, Point 8				R	
B564H	46437				Relay 1 Combination Logic (Combination A/ Combination B)				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B565H	46438				Relay 1 Combination Logic (Combination C/ Combination D)				R	
B566H	46439				Relay 1 Combination Logic (Combination E/ Combination F)				R	
B567H	46440				Relay 1 Combination Logic (Combination G/ Reserved)				R	
B568H	46441				Relay 1 Set Delay/ Reset Delay				R	
B569H-B56BH	46442-46444				Reserved				R	
B56CH-B56DH	46445-46446				Relay 2 Combination Tree Input Line 1, Point 1				R	
B56EH-B56FH	46447-46448				Relay 2 Combination Tree Input Line 2, Point 2				R	
B570H-B571H	46449-46450				Relay 2 Combination Tree Input Line 3, Point 3				R	
B572H-B573H	46451-46452				Relay 2 Combination Tree Input Line 4, Point 4				R	
B574H-B575H	46453-46454				Relay 2 Combination Tree Input Line 5, Point 5				R	
B576H-B577H	46455-46456				Relay 2 Combination Tree Input Line 6, Point 6				R	
B578H-B579H	46457-46458				Relay 2 Combination Tree Input Line 7, Point 7				R	
B57AH-B57BH	46459-46460				Relay 2 Combination Tree Input Line 8, Point 8				R	
B57CH	46461				Relay 2 Combination Logic (Combination A/ Combination B)				R	
B57DH	46462				Relay 2 Combination Logic (Combination C/ Combination D)				R	
B57EH	46463				Relay 2 Combination Logic (Combination E/ Combination F)				R	
B57FH	46464				Relay 2 Combination Logic (Combination G/ Reserved)				R	
B580H	46465				Relay 2 Set Delay/ Reset Delay				R	
B581H-B583H	46466-46468				Reserved				R	
B584H-B585H	46469-46470				Relay 3 Combination Tree Input Line 1, Point 1				R	
B586H-B587H	46471-46472				Relay 3 Combination Tree Input Line 2, Point 2				R	
B588H-B589H	46473-46474				Relay 3 Combination Tree Input Line 3, Point 3				R	
B58AH-B58BH	46475-46476				Relay 3 Combination Tree Input Line 4, Point 4				R	
B58CH-B58DH	46477-46478				Relay 3 Combination Tree Input Line 5, Point 5				R	
B58EH-B58FH	46479-46480				Relay 3 Combination Tree Input Line 6, Point 6				R	
B590H-B591H	46481-46482				Relay 3 Combination Tree Input Line 7, Point 7				R	
B592H-B593H	46483-46484				Relay 3 Combination Tree Input Line 8, Point 8				R	
B594H	46485				Relay 3 Combination Logic (Combination A/ Combination B)				R	
B595H	46486				Relay 3 Combination Logic (Combination C/ Combination D)				R	
B596H	46487				Relay 3 Combination Logic (Combination E/ Combination F)				R	
B597H	46488				Relay 3 Combination Logic (Combination G/ Reserved)				R	
B598H	46489				Relay 3 Set Delay/ Reset Delay				R	
B599H-B59BH	46490-46492				Reserved				R	
B59CH-B59DH	46493-46494				Relay 4 Combination Tree Input Line 1, Point 1				R	
B59EH-B59FH	46495-46496				Relay 4 Combination Tree Input Line 2, Point 2				R	
B5A0H-B5A1H	46497-46498				Relay 4 Combination Tree Input Line 3, Point 3				R	
B5A2H-B5A3H	46499-46500				Relay 4 Combination Tree Input Line 4, Point 4				R	
B5A4H-B5A5H	46501-46502				Relay 4 Combination Tree Input Line 5, Point 5				R	
B5A6H-B5A7H	46503-46504				Relay 4 Combination Tree Input Line 6, Point 6				R	
B5A8H-B5A9H	46505-46506				Relay 4 Combination Tree Input Line 7, Point 7				R	
B5AAH-B5ABH	46507-46508				Relay 4 Combination Tree Input Line 8, Point 8				R	
B5ACH	46509				Relay 4 Combination Logic (Combination A/ Combination B)				R	
B5ADH	46510				Relay 4 Combination Logic (Combination C/ Combination D)				R	
B5AEH	46511				Relay 4 Combination Logic (Combination E/ Combination F)				R	
B5AFH	46512				Relay 4 Combination Logic (Combination G/ Reserved)				R	
B5B0H	46513				Relay 4 Set Delay/ Reset Delay				R	
B5B1H-B5B3H	46514-46516				Reserved				R	
B5B4H-B5B5H	46517-46518				Relay 5 Combination Tree Input Line 1, Point 1				R	
B5B6H-B5B7H	46519-46520				Relay 5 Combination Tree Input Line 2, Point 2				R	
B5B8H-B5B9H	46521-46522				Relay 5 Combination Tree Input Line 3, Point 3				R	
B5BAH-B5BBH	46523-46524				Relay 5 Combination Tree Input Line 4, Point 4				R	
B5BCH-B5BDH	46525-46526				Relay 5 Combination Tree Input Line 5, Point 5				R	
B5BEH-B5BFH	46527-46528				Relay 5 Combination Tree Input Line 6, Point 6				R	
B5C0H-B5C1H	46529-46530				Relay 5 Combination Tree Input Line 7, Point 7				R	
B5C2H-B5C3H	46531-46532				Relay 5 Combination Tree Input Line 8, Point 8				R	
B5C4H	46533				Relay 5 Combination Logic (Combination A/ Combination B)				R	
B5C5H	46534				Relay 5 Combination Logic (Combination C/ Combination D)				R	
B5C6H	46535				Relay 5 Combination Logic (Combination E/ Combination F)				R	
B5C7H	46536				Relay 5 Combination Logic (Combination G/ Reserved)				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B5C8H	46537				Relay 5 Set Delay/ Reset Delay				R	
B5C9H-B5CBH	46538-46540				Reserved				R	
B5CCH-B5CDH	46541-46542				Relay 6 Combination Tree Input Line 1, Point 1				R	
B5CEH-B5CFH	46543-46544				Relay 6 Combination Tree Input Line 2, Point 2				R	
B5D0H-B5D1H	46545-46546				Relay 6 Combination Tree Input Line 3, Point 3				R	
B5D2H-B5D3H	46547-46548				Relay 6 Combination Tree Input Line 4, Point 4				R	
B5D4H-B5D5H	46549-46550				Relay 6 Combination Tree Input Line 5, Point 5				R	
B5D6H-B5D7H	46551-46552				Relay 6 Combination Tree Input Line 6, Point 6				R	
B5D8H-B5D9H	46553-46554				Relay 6 Combination Tree Input Line 7, Point 7				R	
B5DAH-B5DBH	46555-46556				Relay 6 Combination Tree Input Line 8, Point 8				R	
B5DCH	46557				Relay 6 Combination Logic (Combination A/ Combination B)				R	
B5DDH	46558				Relay 6 Combination Logic (Combination C/ Combination D)				R	
B5DEH	46559				Relay 6 Combination Logic (Combination E/ Combination F)				R	
B5DFH	46560				Relay 6 Combination Logic (Combination G/ Reserved)				R	
B5E0H	46561				Relay 6 Set Delay/ Reset Delay				R	
B5E1H-B5E3H	46562-46564				Reserved				R	
B5E4H-B5E5H	46565-46566				Relay 7 Combination Tree Input Line 1, Point 1				R	
B5E6H-B5E7H	46567-46568				Relay 7 Combination Tree Input Line 2, Point 2				R	
B5E8H-B5E9H	46569-46570				Relay 7 Combination Tree Input Line 3, Point 3				R	
B5EAH-B5EBH	46571-46572				Relay 7 Combination Tree Input Line 4, Point 4				R	
B5ECH-B5EDH	46573-46574				Relay 7 Combination Tree Input Line 5, Point 5				R	
B5EEH-B5EFH	46575-46576				Relay 7 Combination Tree Input Line 6, Point 6				R	
B5F0H-B5F1H	46577-46578				Relay 7 Combination Tree Input Line 7, Point 7				R	
B5F2H-B5F3H	46579-46580				Relay 7 Combination Tree Input Line 8, Point 8				R	
B5F4H	46581				Relay 7 Combination Logic (Combination A/ Combination B)				R	
B5F5H	46582				Relay 7 Combination Logic (Combination C/ Combination D)				R	
B5F6H	46583				Relay 7 Combination Logic (Combination E/ Combination F)				R	
B5F7H	46584				Relay 7 Combination Logic (Combination G/ Reserved)				R	
B5F8H	46585				Relay 7 Set Delay/ Reset Delay				R	
B5F9H-B5FBH	46586-46588				Reserved				R	
B5FCH-B5FDH	46589-46590				Relay 8 Combination Tree Input Line 1, Point 1				R	
B5FEH-B5FFH	46591-46592				Relay 8 Combination Tree Input Line 2, Point 2				R	
B600H-B601H	46593-46594				Relay 8 Combination Tree Input Line 3, Point 3				R	
B602H-B603H	46595-46596				Relay 8 Combination Tree Input Line 4, Point 4				R	
B604H-B605H	46597-46598				Relay 8 Combination Tree Input Line 5, Point 5				R	
B606H-B607H	46599-46600				Relay 8 Combination Tree Input Line 6, Point 6				R	
B608H-B609H	46601-46602				Relay 8 Combination Tree Input Line 7, Point 7				R	
B60AH-B60BH	46603-46604				Relay 8 Combination Tree Input Line 8, Point 8				R	
B60CH	46605				Relay 8 Combination Logic (Combination A/ Combination B)				R	
B60DH	46606				Relay 8 Combination Logic (Combination C/ Combination D)				R	
B60EH	46607				Relay 8 Combination Logic (Combination E/ Combination F)				R	
B60FH	46608				Relay 8 Combination Logic (Combination G/ Reserved)				R	
B610H	46609				Relay 8 Set Delay/ Reset Delay				R	
B611H-B613H	46610-46612				Reserved				R	
B614H-B615H	46613-46614				Relay 9 Combination Tree Input Line 1, Point 1				R	
B616H-B617H	46615-46616				Relay 9 Combination Tree Input Line 2, Point 2				R	
B618H-B619H	46617-46618				Relay 9 Combination Tree Input Line 3, Point 3				R	
B61AH-B61BH	46619-46620				Relay 9 Combination Tree Input Line 4, Point 4				R	
B61CH-B61DH	46621-46622				Relay 9 Combination Tree Input Line 5, Point 5				R	
B61EH-B61FH	46623-46624				Relay 9 Combination Tree Input Line 6, Point 6				R	
B620H-B621H	46625-46626				Relay 9 Combination Tree Input Line 7, Point 7				R	
B622H-B623H	46627-46628				Relay 9 Combination Tree Input Line 8, Point 8				R	
B624H	46629				Relay 9 Combination Logic (Combination A/ Combination B)				R	
B625H	46630				Relay 9 Combination Logic (Combination C/ Combination D)				R	
B626H	46631				Relay 9 Combination Logic (Combination E/ Combination F)				R	
B627H	46632				Relay 9 Combination Logic (Combination G/ Reserved)				R	
B628H	46633				Relay 9 Set Delay/ Reset Delay				R	
B629H-B62BH	46634-46636				Reserved				R	
B62CH-B62DH	46637-46638				Relay 10 Combination Tree Input Line 1, Point 1				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B62EH-B62FH	46637-46638-46639-46640				Relay 10 Combination Tree Input Line 2, Point 2				R	
B630H-B631H	46641-46642				Relay 10 Combination Tree Input Line 3, Point 3				R	
B632H-B633H	46643-46644				Relay 10 Combination Tree Input Line 4, Point 4				R	
B634H-B635H	46645-46646				Relay 10 Combination Tree Input Line 5, Point 5				R	
B636H-B637H	46647-46648				Relay 10 Combination Tree Input Line 6, Point 6				R	
B638H-B639H	46649-46650				Relay 10 Combination Tree Input Line 7, Point 7				R	
B63AH-B63BH	46651-46652				Relay 10 Combination Tree Input Line 8, Point 8				R	
B63CH	46653				Relay 10 Combination Logic (Combination A/ Combination B)				R	
B63DH	46654				Relay 10 Combination Logic (Combination C/ Combination D)				R	
B63EH	46655				Relay 10 Combination Logic (Combination E/ Combination F)				R	
B63FH	46656				Relay 10 Combination Logic (Combination G/ Reserved)				R	
B640H	46657				Relay 10 Set Delay/ Reset Delay				R	
B641H-B643H	46658-46660				Reserved				R	
B644H-B645H	46661-46662				Relay 11 Combination Tree Input Line 1, Point 1				R	
B646H-B647H	46663-46664				Relay 11 Combination Tree Input Line 2, Point 2				R	
B648H-B649H	46665-46666				Relay 11 Combination Tree Input Line 3, Point 3				R	
B64AH-B64BH	46667-46668				Relay 11 Combination Tree Input Line 4, Point 4				R	
B64CH-B64DH	46669-46670				Relay 11 Combination Tree Input Line 5, Point 5				R	
B64EH-B64FH	46671-46672				Relay 11 Combination Tree Input Line 6, Point 6				R	
B650H-B651H	46673-46674				Relay 11 Combination Tree Input Line 7, Point 7				R	
B652H-B653H	46675-46676				Relay 11 Combination Tree Input Line 8, Point 8				R	
B654H	46677				Relay 11 Combination Logic (Combination A/ Combination B)				R	
B655H	46678				Relay 11 Combination Logic (Combination C/ Combination D)				R	
B656H	46679				Relay 11 Combination Logic (Combination E/ Combination F)				R	
B657H	46680				Relay 11 Combination Logic (Combination G/ Reserved)				R	
B658H	46681				Relay 11 Set Delay/ Reset Delay				R	
B659H-B65BH	46682-46684				Reserved				R	
B65CH-B65DH	46685-46686				Relay 12 Combination Tree Input Line 1, Point 1				R	
B65EH-B65FH	46687-46688				Relay 12 Combination Tree Input Line 2, Point 2				R	
B660H-B661H	46689-46690				Relay 12 Combination Tree Input Line 3, Point 3				R	
B662H-B663H	46691-46692				Relay 12 Combination Tree Input Line 4, Point 4				R	
B664H-B665H	46693-46694				Relay 12 Combination Tree Input Line 5, Point 5				R	
B666H-B667H	46695-46696				Relay 12 Combination Tree Input Line 6, Point 6				R	
B668H-B669H	46697-46698				Relay 12 Combination Tree Input Line 7, Point 7				R	
B66AH-B66BH	46699-46700				Relay 12 Combination Tree Input Line 8, Point 8				R	
B66CH	46701				Relay 12 Combination Logic (Combination A/ Combination B)				R	
B66DH	46702				Relay 12 Combination Logic (Combination C/ Combination D)				R	
B66EH	46703				Relay 12 Combination Logic (Combination E/ Combination F)				R	
B66FH	46704				Relay 12 Combination Logic (Combination G/ Reserved)				R	
B670H	46705				Relay 12 Set Delay/ Reset Delay				R	
B671H-B673H	46706-46708				Reserved				R	
B674H-B675H	46709-46710				Relay 13 Combination Tree Input Line 1, Point 1				R	
B676H-B677H	46711-46712				Relay 13 Combination Tree Input Line 2, Point 2				R	
B678H-B679H	46713-46714				Relay 13 Combination Tree Input Line 3, Point 3				R	
B67AH-B67BH	46715-46716				Relay 13 Combination Tree Input Line 4, Point 4				R	
B67CH-B67DH	46717-46718				Relay 13 Combination Tree Input Line 5, Point 5				R	
B67EH-B67FH	46719-46720				Relay 13 Combination Tree Input Line 6, Point 6				R	
B680H-B681H	46721-46722				Relay 13 Combination Tree Input Line 7, Point 7				R	
B682H-B683H	46723-46724				Relay 13 Combination Tree Input Line 8, Point 8				R	
B684H	46725				Relay 13 Combination Logic (Combination A/ Combination B)				R	
B685H	46726				Relay 13 Combination Logic (Combination C/ Combination D)				R	
B686H	46727				Relay 13 Combination Logic (Combination E/ Combination F)				R	
B687H	46728				Relay 13 Combination Logic (Combination G/ Reserved)				R	
B688H	46729				Relay 13 Set Delay/ Reset Delay				R	
B689H-B68BH	46730-46732				Reserved				R	
B68CH-B68DH	46733-46734				Relay 14 Combination Tree Input Line 1, Point 1				R	
B68EH-B68FH	46735-46736				Relay 14 Combination Tree Input Line 2, Point 2				R	
B690H-B691H	46737-46738				Relay 14 Combination Tree Input Line 3, Point 3				R	
B692H-B693H	46739-46740				Relay 14 Combination Tree Input Line 4, Point 4				R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B694H-B695H	46741-46742				Relay 14 Combination Tree Input Line 5, Point 5				R	
B696H-B697H	46743-46744				Relay 14 Combination Tree Input Line 6, Point 6				R	
B698H-B699H	46745-46746				Relay 14 Combination Tree Input Line 7, Point 7				R	
B69AH-B69BH	46747-46748				Relay 14 Combination Tree Input Line 8, Point 8				R	
B69CH	46749				Relay 14 Combination Logic (Combination A/ Combination B)				R	
B69DH	46750				Relay 14 Combination Logic (Combination C/ Combination D)				R	
B69EH	46751				Relay 14 Combination Logic (Combination E/ Combination F)				R	
B69FH	46752				Relay 14 Combination Logic (Combination G/ Reserved)				R	
B6A0H	46753				Relay 14 Set Delay/ Reset Delay				R	
B6A1H-B6A3H	46754-46756				Reserved				R	
B6A4H-B6A5H	46757-46758				Relay 15 Combination Tree Input Line 1, Point 1				R	
B6A6H-B6A7H	46759-46760				Relay 15 Combination Tree Input Line 2, Point 2				R	
B6A8H-B6A9H	46761-46762				Relay 15 Combination Tree Input Line 3, Point 3				R	
B6AAH-B6ABH	46763-46764				Relay 15 Combination Tree Input Line 4, Point 4				R	
B6ACH-B6ADH	46765-46766				Relay 15 Combination Tree Input Line 5, Point 5				R	
B6AEH-B6AFH	46767-46768				Relay 15 Combination Tree Input Line 6, Point 6				R	
B6B0H-B6B1H	46769-46770				Relay 15 Combination Tree Input Line 7, Point 7				R	
B6B2H-B6B3H	46771-46772				Relay 15 Combination Tree Input Line 8, Point 8				R	
B6B4H	46773				Relay 15 Combination Logic (Combination A/ Combination B)				R	
B6B5H	46774				Relay 15 Combination Logic (Combination C/ Combination D)				R	
B6B6H	46775				Relay 15 Combination Logic (Combination E/ Combination F)				R	
B6B7H	46776				Relay 15 Combination Logic (Combination G/ Reserved)				R	
B6B8H	46777				Relay 15 Set Delay/ Reset Delay				R	
B6B9H-B6BBH	46778-46780				Reserved				R	
B6BCH-B6BDH	46781-46782				Relay 16 Combination Tree Input Line 1, Point 1				R	
B6BEG-B6BFH	46783-46784				Relay 16 Combination Tree Input Line 2, Point 2				R	
B6C0H-B6C1H	46785-46786				Relay 16 Combination Tree Input Line 3, Point 3				R	
B6C2H-B6C3H	46787-46788				Relay 16 Combination Tree Input Line 4, Point 4				R	
B6C4H-B6C5H	46789-46790				Relay 16 Combination Tree Input Line 5, Point 5				R	
B6C6H-B6C7H	46791-46792				Relay 16 Combination Tree Input Line 6, Point 6				R	
B6C8H-B6C9H	46793-46794				Relay 16 Combination Tree Input Line 7, Point 7				R	
B6CAH-B6CBH	46795-46796				Relay 16 Combination Tree Input Line 8, Point 8				R	
B6CCH	46797				Relay 16 Combination Logic (Combination A/ Combination B)				R	
B6CDH	46798				Relay 16 Combination Logic (Combination C/ Combination D)				R	
B6CEH	46799				Relay 16 Combination Logic (Combination E/ Combination F)				R	
B6CFH	46800				Relay 16 Combination Logic (Combination G/ Reserved)				R	
B6D0H	46801				Relay 16 Set Delay/ Reset Delay				R	
B6D1H-B6D3H	46802-46804				Reserved				R	
Limit Profile Label Block										
B6D4H-B6DBH	46805-46812				Limit 1 Label			F2	R	ch.7
B6DCH-B6E3H	46813-46820				Limit 2 Label			F2	R	ch.7
B6E4H-B6EBH	46821-46828				Limit 3 Label			F2	R	ch.7
B6ECH-B6F3H	46829-46836				Limit 4 Label			F2	R	ch.7
B6F4H-B6FBH	46837-46844				Limit 5 Label			F2	R	ch.7
B6FCH-B703H	46845-46852				Limit 6 Label			F2	R	ch.7
B704H-B70BH	46853-46860				Limit 7 Label			F2	R	ch.7
B70CH-B713H	46861-46868				Limit 8 Label			F2	R	ch.7
B714H-B71BH	46869-46876				Limit 9 Label			F2	R	ch.7
B71CH-B723H	46877-46884				Limit 10 Label			F2	R	ch.7
B724H-B72BH	46885-46892				Limit 11 Label			F2	R	ch.7
B72CH-B733H	46893-46900				Limit 12 Label			F2	R	ch.7
B734H-B73BH	46901-46908				Limit 13 Label			F2	R	ch.7
B73CH-B743H	46909-46916				Limit 14 Label			F2	R	ch.7
B744H-B74BH	46917-46924				Limit 15 Label			F2	R	ch.7
B74CH-B753H	46925-46932				Limit 16 Label			F2	R	ch.7
B754H-B75BH	46933-46940				Limit 17 Label			F2	R	ch.7
B75CH-B763H	46941-46948				Limit 18 Label			F2	R	ch.7
B764H-B76BH	46949-46956				Limit 19 Label			F2	R	ch.7
B76CH-B773H	46957-46964				Limit 20 Label			F2	R	ch.7
B774H-B77BH	46965-46972				Limit 21 Label			F2	R	ch.7

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B77CH-B783H	46973-46980				Limit 22 Label			F2	R	ch.7
B784H-B78BH	46981-46988				Limit 23 Label			F2	R	ch.7
B78CH-B793H	46989-46996				Limit 24 Label			F2	R	ch.7
B794H-B79BH	46997-47004				Limit 25 Label			F2	R	ch.7
B79CH-B7A3H	47005-47012				Limit 26 Label			F2	R	ch.7
B7A4H-B7ABH	47213-47020				Limit 27 Label			F2	R	ch.7
B7ACH-B7B3H	47021-47028				Limit 28 Label			F2	R	ch.7
B7B4H-B7BBH	47029-47036				Limit 29 Label			F2	R	ch.7
B7BCH-B7C3H	47037-47044				Limit 30 Label			F2	R	ch.7
B7C4H-B7CBH	47045-47052				Limit 31 Label			F2	R	ch.7
B7CCH-B7D3H	47053-47060				Limit 32 Label			F2	R	ch.7
External Analog Output Module Channel Update Block										
B7D4H	47061				Module 1/ Module 2				R	
B7D5H	47062				Module 3/ Module 4				R	
DNP Block										
Miscellaneous DNP Settings Block										
B7D6H	47063				MSB: Scale for Analog Output of Average Pulse Accumulation LSB: Compressed DNP Mapping				R	
B7D7H	47064				MSB: Energy in the interval LSB: DNP Time synchronization				R	
B7D8H	47065				DNP Time Synchronization Time Interval				R	
B7D9H	47066				Bit[15-14]: DNP Configuration 00: DNP Level 1 01: DNP Level 2 10: Reserved 11: DNP Level 1 Bit 13: Class 0 Counter Object 0: Object 20 1: Object 21 Bit 12: DNP Freeze Schedule 0: Disable 1: Enable Bit 11: DNP Unsolicited Response Mode 0: Off 1: On Bit 10: DNP Disable Unsolicited Response On Startup 0: No 1: Yes Bit 9: DNP Enable Unsolicited Response for Class 1 0: No 1: Yes Bit 8: DNP Enable Unsolicited Response for Class 1 0: No 1: Yes Bit 7: DNP Enable Unsolicited Response for Class 3 0: No 1: Yes Bits[0-6]: Reserved			R		
B7DAH-B7DDH	47067-47070				DNP Freeze Date & Time	12/31/9999 23:59:59.99	10 msec	F3	R	
B7DEH	47071				DNP Freeze Interval MSB: Hour LSB: Minute				R	
B7DFH	47072				DNP Unsolicited Response: Destination Address MSB first: from 1 to 65519					
B7E0H	47073				DNP Unsolicited Response: High Byte: Confirmation Timeout - from 1 sec to 60 sec Low Byte: Number of Retry - from 1 to 16, but 16 retry forever					
B7E1H-B7FFH	47074-47104				Reserved					
Custom DNP Definition Block for Analog Input (Object 30)										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B800H	47105				Point 0: Line Number Number from an analog input readings, such as 34 (One second Phase-Neutron Voltage Update)				R	
B801H	47106				Point 0: MSB: Point Number Number from an analog input readings, such as 0 (Phase A-N Voltage from One second phase-neutron voltage) LSB: Reserved				R	
B802H	47107				Point 0: Deadband	-328% / +328%	0.01%		R	
B803H	47108				Point 0: MSB: Class Assignment (8 bit bitmap) LSB: Reserved				R	
B804H-B8FFH	47109-47360				Point 1 - Point 63					
Custom DNP Definition Block for Binary Counter (Object 20)										
B900H	47361				Point 0: Line Number Number from an accumulation readings, such as 537 (Energy Scaled)				R	
B901H	47362				Point 0: MSB: Point Number Number from an accumulation readings, such as 0 (Positive Wh (Quadrant 1-4) from Energy Scaled) LSB: Scaling				R	
B902H-B903H	47363-47364				Point 0: Delta values for Event to occur				R	
B904H	47365				Point 0: MSB: Class Assignment (8 bit bitmap) LSB: Reserved				R	
B905H-B907H	47366-47368				Point 0, reserved					
B908H-B93FH	47369-47424				Point 1 - Point 8					
Custom DNP Definition Block for Binary Input (Object 1)										
B940H	47425				Point 0-7: Line Number Number from a binary input readings, such as 233 (Low Speed (Internal) Inputs)				R	
B941H	47426				Point 0-7: MSB: Point Number Number from a binary input readings, such as 0 (Input 1 from Low Speed (Internal) Inputs) LSB: Class Assignment (8 bit bitmap)				R	
B942H-B943H	47427-47428				Point 0-7: Reserved					
B944H-B95FH	47429-47456				Point 8-15 - Point 57-64					
Custom DNP Definition Block for Binary Output (Object 10)										
B960H	47457				Relay: Enable/Disable				R	
B961H	47458				Reset: Enable/Disable				R	
Custom DNP Definition Block for Global Values										
B962H	47459				Choice Of Variation 0: MSB: For Binary Input (Object 1) LSB: For Binary Input Change (Object 2)				R	
B963H	47460				Choice Of Variation 0: MSB: For Counter Change Event (Object 22) LSB: For Frozen Counter Event (Object 23)				R	
B964H	47461				Choice Of Variation 0: MSB: For Analog Input (Object 30) LSB: For Frozen Analog Input (Object 31)				R	
B965H	47462				Choice Of Variation 0: MSB: For Analog Change Event (Object 32) LSB: For Frozen Analog Event (Object 33)				R	
B966H	47463				MSB: Custom 16-bit Scaling Enable LSB: Reserved				R	
B968H-B969H	47465				Scale for Ia, b, c, n	+32767 A / 0 A	1/ 65536 A sec	F7	R	
B96AH-B96BH	47466				Scale for Ia, b, c, n	+32767 A / 0 A	1/ 65536 A sec	F7	R	
B96CH-B96DH	47467				Scale for Van, bn, cn	+32767 V / 0 V	1/ 65536 V sec	F7	R	
B96EH-B96FH	47468				Scale for Vaux	+32767 V / 0 V	1/ 65536 V sec	F7	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
B970H-B971H	47469				Scale for Vab, bc, ca	+32767 V / 0 V	1/ 65536 V sec	F7	R	
B972H-B973H	47470				Scale for Power a, b, c	+32767 W / -32768 W	1/ 65536 W sec	F7	R	
B974H-B975H	47471				Scale for Total Power	+32767 W / -32768 W	1/ 65536 W sec	F7	R	
B976H-B977H	47472				Scale for Frequency (High End)	+32767 Hz / -32768 Hz	1/ 65536 Hz	F7	R	
B978H-B979H	47473				Scale for Frequency (Low End)	+32767 Hz / -32768 Hz	1/ 65536 Hz	F7	R	
B97AH-BDFH	47474-48640				Reserved					
BE00H-C27FH	48641-49792				Reserved					
External Digital Output Module Labels Block										
C280H-C287H	49793-49800				Module 1 Relay Label 1				R	
C288H-C28FH	49801-49808				Module 1 Relay Label 2				R	
C290H-C297H	49809-49816				Module 1 Relay Label 3				R	
C298H-C29FH	49817-49824				Module 1 Relay Label 4				R	
C2A0H-C2A7H	49825-49832				Module 2 Relay Label 1				R	
C2A8H-C2AFH	49833-49840				Module 2 Relay Label 2				R	
C2B0H-C2B7H	49841-49848				Module 2 Relay Label 3				R	
C2B8H-C2BFH	49849-49856				Module 2 Relay Label 4				R	
C2C0H-C2C7H	49857-49864				Module 3 Relay Label 1				R	
C2C8H-C2CFH	49865-49872				Module 3 Relay Label 2				R	
C2D0H-C2D7H	49873-49880				Module 3 Relay Label 3				R	
C2D8H-C2DFH	49881-49888				Module 3 Relay Label 4				R	
C2E0H-C2E7H	49889-49896				Module 4 Relay Label 1				R	
C2E8H-C2EFH	49897-49904				Module 4 Relay Label 2				R	
C2F0H-C2F7H	49905-49912				Module 4 Relay Label 3				R	
C2F8H-C2FFH	49913-49920				Module 4 Relay Label 4				R	
C300H-C307H	49921-49928				Module 1 Relay Common Shorted to Normally Closed Label 1				R	
C308H-C30FH	49929-49936				Module 1 Relay Common Shorted to Normally Closed Label 2				R	
C310H-C317H	49937-49944				Module 1 Relay Common Shorted to Normally Closed Label 3				R	
C318H-C31FH	49945-49952				Module 1 Relay Common Shorted to Normally Closed Label 4				R	
C320H-C327H	49953-49960				Module 2 Relay Common Shorted to Normally Closed Label 1				R	
C328H-C32FH	49961-49968				Module 2 Relay Common Shorted to Normally Closed Label 2				R	
C330H-C337H	49969-49976				Module 2 Relay Common Shorted to Normally Closed Label 3				R	
C338H-C33FH	49977-49984				Module 2 Relay Common Shorted to Normally Closed Label 4				R	
C340H-C347H	49985-49992				Module 3 Relay Common Shorted to Normally Closed Label 1				R	
C348H-C34FH	49993-50000				Module 3 Relay Common Shorted to Normally Closed Label 2				R	
C350H-C357H	50001-50008				Module 3 Relay Common Shorted to Normally Closed Label 3				R	
C358H-C35FH	50009-50016				Module 3 Relay Common Shorted to Normally Closed Label 4				R	
C360H-C367H	50017-50024				Module 4 Relay Common Shorted to Normally Closed Label 1				R	
C368H-C36FH	50025-50032				Module 4 Relay Common Shorted to Normally Closed Label 2				R	
C370H-C377H	50033-50040				Module 4 Relay Common Shorted to Normally Closed Label 3				R	
C378H-C37FH	50041-50048				Module 4 Relay Common Shorted to Normally Closed Label 4				R	
C380H-C387H	50049-50056				Module 1 Relay Common Shorted to Normally Opened Label 1				R	
C388H-C38FH	50057-50064				Module 1 Relay Common Shorted to Normally Opened Label 2				R	
C390H-C397H	50065-50072				Module 1 Relay Common Shorted to Normally Opened Label 3				R	
C398H-C39FH	50073-50080				Module 1 Relay Common Shorted to Normally Opened Label 4				R	
C3A0H-C3A7H	50081-50088				Module 2 Relay Common Shorted to Normally Opened Label 1				R	
C3Q8H-C3AFH	50089-50096				Module 2 Relay Common Shorted to Normally Opened Label 2				R	
C3B0H-C3B7H	50097-50104				Module 2 Relay Common Shorted to Normally Opened Label 3				R	
C3B8H-C3BFH	50105-50112				Module 2 Relay Common Shorted to Normally Opened Label 4				R	
C3C0H-C3C7H	50113-50120				Module 3 Relay Common Shorted to Normally Opened Label 1				R	
C3C8H-C3CFH	50121-50128				Module 3 Relay Common Shorted to Normally Opened Label 2				R	
C3D0H-C3D7H	50129-50136				Module 3 Relay Common Shorted to Normally Opened Label 3				R	
C3D8H-C3DFH	50137-50144				Module 3 Relay Common Shorted to Normally Opened Label 4				R	
C3E0H-C3E7H	50145-50152				Module 4 Relay Common Shorted to Normally Opened Label 1				R	
C3E8H-C3EFH	50153-50160				Module 4 Relay Common Shorted to Normally Opened Label 2				R	
C3F0H-C3F7H	50161-50168				Module 4 Relay Common Shorted to Normally Opened Label 3				R	
C3F8H-C3FFH	50169-50176				Module 4 Relay Common Shorted to Normally Opened Label 4				R	
Reserved Block										
C400H-C45FH	50177-50272				Reserved					
Customizable Modbus Map Settings Block										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
C460H-C461H	50273-50274				Line 1, Point 1				R	
C462H-C65FH	50275-50784				Line 2, Point 2 - Line 256, Point 256				R	
Network Settings 10/100 Card										
Auto TFTP Download Settings										
C660H	50785				Enable/ Disable					
C661H	50786				TFTP Port					
C662H-C663H	50787-50788				Client IP					
C664H-C665H	50789-50790				Server IP					
C666H-C667H	50791-50792				Default Gateway					
C668H-C669H	50793-50794				Subnet Mask					
C66AH	50795				Email Mode					
C66BH	50796				FTP Download					
C66CH-C6ABH	50797-50860				Download Filename (128 Bytes)					
Email Client settings										
C6ACH-C6CBH	50861-50892				Email Server IP Address / Name (64 bytes)					
C6CCH-C6EBH	50893-50924				Nxs Comm Email Processing Service IP Address / Name (64 bytes)					
C6ECH-C70BH	50925-50956				Return / Reply Address (64 bytes)					
C70CH-C72BH	50957-50988				Email Subject Text (64 Bytes)					
C72CH-C73BH	50989-51004				Email Username (32 Bytes)					
C73CH-C74BH	51005-51020				Email Password (32 Bytes)					
C74CH-C7CBH	51021-51148				Reserved					
C7CCH-C7D3H	51149-51156				Reserved					
DNP LAN/WAN										
C7D4H	51157				MSB: Mode LSB: Bitmap Set				R	
C7D5H	51158				MSB: UDP Addressing LSB: Validate Source IPs				R	
C7D6H	51159				TCP Listen Port				R	
C7D7H	51160				UDP Listen Port				R	
C7D8H-C7D9H	51161-51162				Valid IP Address 1				R	
C7DAH-C7DBH	51163-51164				Valid IP Address 2				R	
C7DCH-C7DDH	51165-61166				Valid IP Address 3				R	
C7DEH-C7DFH	51167-51168				Valid IP Address 4				R	
C7E0H-C7E1H	51169-51170				Valid IP Subnet Mask 1				R	
C7E2H-C7E3H	51171-51172				Valid IP Subnet Mask 2				R	
C7E4H-C7E5H	51173-51174				Valid IP Subnet Mask 3				R	
C7E6H-C7E7H	51175-51176				Valid IP Subnet Mask 4				R	
C7E8H-C7EBH	51177-51180				TCP Starting Valid Client Ports				R	
C7ECH-C7EFH	51181-51184				TCP Ending Valid Client Ports				R	
C7F0H-C7F3H	51185-51188				UDP Starting Valid Client Ports				R	
C7F4H-C7F7H	51189-51192				UDP Ending Valid Client Ports				R	
C7F8H-C7F9H	51193-51194				Reserved					
C7FAH	51195				UDP Respond Port				R	
C7FBH					Device Address				R	
C7FCH-C7FFH	51196-51200				Reserved					
Customizable Modbus Map Format Block										
C800H	51201				Custom Modbus Point 1 Style / Format				R	
C801H	51202				Custom Modbus Point 1 Unit / Special					
C802H-C9FFH	51203-51712				Custom Modbus Points 2-256 Style / Format and Unit / Special				R	
Energy Scale Settings										
CA00H	51713				Q1234 VAh/ Q12 VARh				F65	
CA01H	51714				Q34 VARh/ Q14 Wh				F65	
CA02H	51715				Q1 VAh/ Q1 VARh				F65	
CA03H	51716				Q4 VAh/ Q4 VARh				F65	
CA04H	51717				Q23 Wh/ Q2 VAh				F65	
CA05H	51718				Q2 VARh/ Q3 VAh				F65	
CA06H	51719				Q3 VARh/ I ^t Phase A				F65	
CA07H	51720				I ^t Phase B/ I ^t Phase C				F65	
CA08H	51721				V ² Phase A/ V ² Phase B				F65	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
CA09H	51722				V ² Phase C/ Q1 Wh			F65		
CA0AH	51723				Q4 Wh/ Q2 Wh			F65		
CA0BH	51724				Q3 Wh/ Q1234 VAh, Uncompensated			F65		
CA0CH	51725				Q12 VARh, Uncompensated/ Q34 VARh, Uncompensated			F65		
CA0DH	51726				Q14 Wh, Uncompensated/ Q23 Wh, Uncompensated			F65		
CA0EH	51727				+Qh/ -Qh			F65		
CA0FH-CA13H	51728-51732				Reserved					
CA14H	51733				Pulse Accumulation, Input 1/ Pulse Accumulation Input 2			F65		
CA15H	51734				Pulse Accumulation, Input 3/ Pulse Accumulation Input 4			F65		
CA16H	51735				Pulse Accumulation, Input 5/ Pulse Accumulation Input 6			F65		
CA17H	51736				Pulse Accumulation, Input 7/ Pulse Accumulation Input 8			F65		
CA18H	51737				Pulse Aggregation 1/ Pulse Aggregation 2			F65		
CA19H	51738				Pulse Aggregation 3/ Pulse Aggregation 4			F65		
CA1AH	51739				SYNCH connection (Yes/No 1-255/0) / FVF change per day (1-50)			F65		
CA1BH	51740				MSB: KYZ Operation Status Enable LSB: KYZ Operation Satus Selection: KYZ1=0; KYZ2=1; KYZ3=2; KYZ4=3			F65		
CA1CH-CA1DH	51741-51742				TDD Reference Voltage			F7		
CA1EH-CA1FH	51743-51744				TDD Reference Current			F7		
CA20H-CA21H	51745-51746				EN50160 Nominal Voltage					
CA22H-CA94H	51747-51861				Reserved					
Nexus 15xx Master RTU Block (Modbus RTU only Func Code 0x03 Only)										
CA95H	51862				Polling Order 1/ Device address					
CA96H	51863				Starting Modbus address					
CA97H	51864				Number of Register					
CA98H-CC14H	51865-52245				Repeat 127 times					
Accumulator/Aggregators Limit										
CA95H	51862				Polling Order 1/ Device address					
CA96H	51863				Starting Modbus address					
CA97H	51864				Number of Register					
CA98H-CC14H	51865-52245				Repeat 127 times					
CC15H-CEEFH	52246-52976				Reserved					
Update Settings Block										
CEF0H-CF6FH	52977-53104				User Memo Field (256 bytes)					
CF70H-CFEFH	53105-53232				Name of User Who Last Updated the Profile (256 bytes)					
CFF0H	53233				Device Profile Version (Year)					
CFF1H	53234				Device Profile Version (Month/ Day)					
CFF2H	53235				Device Profile Version (Build)					
CFF3H	53236				Pro Software ID					
CFF4H-CFF5H	53237-53238				Electro Industries Device Type (Base Unit)					
CFF6H	53239				Electro Industries Device Type (Option 1/ Option 2)					
CFF7H	53240				Electro Industries Device Type (Option 3/ Option 4)					
CFF8H	53241				Update Programming Software Version Number (Major)					
CFF9H	53242				Update Programming Software Version Number (Minor)					
CFFAH	53243				Update Programming Software Version Number (Revision)					
CFFBH-CFFEH	53244-53247				Update Time				R	
CFFFH	53248				Programmable Settings Block Checksum				R	
12-Bit RTU Block										
D000H	53249				Sanity Register			F58	R	
D001H	53250				Phase A Current	+5 A / 0 A	5 / 2048 A sec	F59	R	
D002H	53251				Phase B Current	+5 A / 0 A	5 / 2048 A sec	F59	R	
D003H	53252				Phase C Current	+5 A / 0 A	5 / 2048 A sec	F59	R	
D004H	53253				Phase A-N Voltage	+150 V / 0 V	150 / 2048 V sec	F59	R	
D005H	53254				Phase B-N Voltage	+150 V / 0 V	150 / 2048 V sec	F59	R	
D006H	53255				Phase C-N Voltage	+150 V / 0 V	150 / 2048 V sec	F59	R	
D007H	53256				Total Watt	+1500 W / -1500 W	1500 / 2048 W sec	F59	R	
D008H	53257				Total VAR	+1500 VAR / -1500 VAR	1500 / 2048 VAR sec	F59	R	
D009H	53258				Phase A Watt	+1500 W / -1500 W	1500 / 2048 W sec	F59	R	
D00AH	53259				Phase B Watt	+1500 W / -1500 W	1500 / 2048 W sec	F59	R	
D00BH	53260				Phase C Watt	+1500 W / -1500 W	1500 / 2048 W sec	F59	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D00CH	53261				Phase A VAR	+1500 VAR / -1500 VAR	1500 / 2048 VAR sec	F59	R	
D00DH	53262				Phase B VAR	+1500 VAR / -1500 VAR	1500 / 2048 VAR sec	F59	R	
D00EH	53263				Phase C VAR	+1500 VAR / -1500 VAR	1500 / 2048 VAR sec	F59	R	
D00FH-D010H	53264-53265				Reserved					
D011H	53266				Computed Neutral Current	+5 A / 0 A	5 / 2048 A sec	F59	R	
D012H-D013H	53267-53268				Positive Watthour	+99,999,999 kWh / 0 kWh	1 kWh pri	F60	R	
D014H-D015H	53269-53270				Negative Watthour	0 kWh / +99,999,999 kWh	1 kWh pri	F60	R	
D016H-D017H	53271-53272				Positive VARhour	+99,999,999 kVARh / 0 kVARh	1 kVARh pri	F60	R	
D018H-D019H	53273-53274				Negative VARhour	0 kVARh / +99,999,999 kVARh	1 kVARh pri	F60	R	
D01AH	53275				Frequency	45 Hz / 75 Hz	30 / 4096 Hz	F61	R	
D01BH-D062H	53276-53347				Reserved					
D063H	53348				Energy Reset				W	
NVRAM Window										
D800H-DFFFH	55296-57344				NVRAM readings (Diagnostic Purpose only)					
Action Block										
E000H	57345				Log Reset				W	Ch.5
E001H	57346				Maximum Reset				W	
E002H	57347				Minimum Reset				W	
E003H	57348				Energy Reset				W	
E004H-E022H	57349-57379				Reserved					
E023H	57380				Internal KYZ Enable				R/W	
E024H	57381				Flicker Action	Enumeration			R/W	
E025H	57382				Undefined				R/W	
E029H	57386				Reset Time Of Use Current Month				R/W	
E02BH	57388				Reset Internal Input Accumulations and Aggregations				R/W	
E02DH	57390				Refresh External IO Header Information				W	
E02EH	57391				Refresh External IO Programming Information				W	
E02FH	57392				Relay Locking Relay Selection				R/W	
E030H	57393				Relay Locking Action Selection				R/W	
E032H	57395				Reset Test Mode Data				W	
E033H	57396				Reset KYZ Output Accumulations				W	
E034H	57397				Reset Cumulative Demand				W	
E035H	57398				Reset Historical Log 1				W	
E036H	57399				Reset Historical Log 2				W	
E037H	57400				Reset Sequence of Events Log (limit alarm log)				W	
E038H	57401				Reset Digital Input Log				W	
E039H	57402				Reset Relay Output Log				W	
E03AH	57403				Reset EN50160 10min Trending Log				W	
E03BH	57404				Reset Waveform Log				W	
E03CH	57405				Reset PQ Log				W	
E03DH	57406				Reset System Event Log				W	
E03EH	57407				Reset Total Average Power Factor				W	
E04AH	57419				Reset Historical Log 3				W	
E04BH	57420				Reset Historical Log 4				W	
E04CH	57421				Reset Historical Log 5				W	
E04DH	57422				Reset Historical Log 6				W	
E04EH	57423				Reset Historical Log 7				W	
E04FH	57424				Reset Historical Log 8				W	
E050H	57425				Reset Event Triggered Log				W	
E053H	57428				Reset Core Trending log				W	
E0A4H	57509				Reset Time of Use Current Season/week/day				W	
E0AAH	57515				Time of Use Manual Read Season/week/day Block Data				W	
E0ABH	57516				Time of Use Manual Read Month Block Data				W	
E0ACH	57517				(all TOU data, and resets under command E001, E002, E003, E02B)				W	
Password extended										
F2A0H-F2DFH	62113-62176				Ciphertext				R/W	Security
F2E0H-F2E7H	62177-62184				Seed				R	Security
F2E8H	62185				System Security Status				R	Security

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
F2E9H	62186				Security Access Status				R	Security
F2EAH	62187				Session Role Index				R/W	Security
F2EBH-F2EFH	62188-62192				Session Privilege				R	Security
F2F0H	62193				Remaing Block Timeout Left				R	Security
F2F1H	62194				User Index				R/W	Security
F2F2H	62195				Session Inactivity Timeout Left				R	Security
F2F3H	62196				Remaing Seed Timeout Left				R	Security
F2F4H	62197				Inactivity Timeout				R	Security
3second RMS Result Frame 150cycles for 50Hz sytem, 180cycles for 60HZ sytem										
F900H-F903H	63745-63748				3 sec Update RTC Timestamp	12/31/9999 23:59:59.99		F3	R	
F904H-F905H	63749-63750				3 sec RMS Phase A-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F906H-F907H	63751-63752				3 sec RMS Phase B-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F908H-F909H	63753-63754				3 sec RMS Phase C-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F90AH-F90BH	63755-63756				3 sec RMS Phase A-B Voltage	-32767.999/+32767.999	Volts	F7	R	
F90CH-F90DH	63757-63758				3 sec RMS Phase B-C Voltage	-32767.999/+32767.999	Volts	F7	R	
F90EH-F90FH	63759-63760				3 sec RMS Phase C-A Voltage	-32767.999/+32767.999	Volts	F7	R	
F910H-F911H	63761-63762				3 sec RMS Phase X-N Voltage	-32767.999/+32767.999	Amps	F7	R	
F912H-F913H	63763-63764				3 sec RMS Vres Voltage	-32767.999/+32767.999	Volts	F7	R	
F914H-F915H	63765-63766				3 sec RMS Ires Current	-32767.999/+32767.999	Amps	F7	R	
F916H-F917H	63767-63768				1 sec ADC count V1	-32767.999/+32767.999	Volts	F7	R	
F918H-F919H	63769-63770				2 sec ADC count V2	-32767.999/+32767.999	Volts	F7	R	
F91AH-F91BH	63771-63772				3 sec ADC count V3	-32767.999/+32767.999	Volts	F7	R	
F91CH-F91DH	63773-63774				4 sec ADC count V4	-32767.999/+32767.999	Volts	F7	R	
F91EH-F91FH	63775-63776				3 sec RMS Phase N-E Voltage	-32767.999/+32767.999	Volts	F7	R	
F920H-F921H	63777-63778				3 sec RMS Phase A Current	-32767.999/+32767.999	Amps	F7	R	
F922H-F923H	63779-63780				3 sec RMS Phase B Current	-32767.999/+32767.999	Amps	F7	R	
F924H-F925H	63781-63782				3 sec RMS Phase C Current	-32767.999/+32767.999	Amps	F7	R	
F926H-F927H	63783-63784				3 sec RMS Phase X Current	-32767.999/+32767.999	Amps	F7	R	
F928H-F929H	63785-63786				3 sec MEAN Phase A-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F92AH-F92BH	63787-63788				3 sec MEAN Phase B-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F92CH-F92DH	63789-63790				3 sec MEAN Phase C-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F92EH-F92FH	63791-63792				3 sec MEAN Phase A-B Voltage	-32767.999/+32767.999	Volts	F7	R	
F930H-F931H	63793-63794				3 sec MEAN Phase B-C Voltage	-32767.999/+32767.999	Volts	F7	R	
F932H-F933H	63795-63796				3 sec MEAN Phase C-A Voltage	-32767.999/+32767.999	Volts	F7	R	
F934H-F935H	63797-63798				3 sec MEAN Phase X-N Voltage	-32767.999/+32767.999	Volts	F7	R	
F936H-F937H	63799-63800				3 sec MEAN Vres Voltage	-32767.999/+32767.999	Volts	F7	R	
F938H-F939H	63801-63802				3 sec MEAN Ires Current	-32767.999/+32767.999	Amps	F7	R	
F93AH-F93BH	63803-63804				1 sec ADC count I1	-32767.999/+32767.999	Volts	F7	R	
F93CH-F93DH	63805-63806				2 sec ADC count I2	-32767.999/+32767.999	Volts	F7	R	
F93EH-F93FH	63807-63808				3 sec ADC count I3	-32767.999/+32767.999	Volts	F7	R	
F940H-F941H	63809-63810				4 sec ADC count I4	-32767.999/+32767.999	Volts	F7	R	
F942H-F943H	63811-63812				3 sec MEAN Phase N-E Voltage	-32767.999/+32767.999	Volts	F7	R	
F944H-F945H	63813-63814				3 sec MEAN Phase A Current	-32767.999/+32767.999	Amps	F7	R	
F946H-F947H	63815-63816				3 sec MEAN Phase B Current	-32767.999/+32767.999	Amps	F7	R	
F948H-F949H	63817-63818				3 sec MEAN Phase C Current	-32767.999/+32767.999	Amps	F7	R	
F94AH-F94BH	63819-63820				3 sec MEAN Phase X Current	-32767.999/+32767.999	Amps	F7	R	
Compact Flash Block										
FE13H-FE16H	65044-65047				Reserved			F55		
FE17H-FE20H	65048-65057				Serial Number: ASCII, right justified, with no null string terminator			F2		
FE21H-FE24H	65058-65061				FAT Type: ASCII, right justified, with no null string terminator			F2		
FE25H-FE38H	65062-65081				Model Number: ASCII, left justified, with no null string terminator			F2		
FE39H-FE3EH	65082-65087				Reserved					
Device Identification Block 2										
FE3FH	65088				Reserved			F112	R	
FE40H-FE47H	65089-65096				Device FPGA hardware ID			F1	R	
FE48H-FE4FH	65097-65104				Device FPGA firmware ID			F1	R	
FE50H-FE57H	65105-65112				System preboot version			F1	R	
FE58H-FE5FH	65113-65120				System preboot build time			F1	R	

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
FE60H-FE67H	65121-65128				System uboot version			F1	R	
FE68H-FE6FH	65129-65136				System uboot build time, 1/2			F1	R	
FE70H-FE77H	65137-65144				System uboot build time, 2/2			F1	R	
FE78H-FE7FH	65145-65152				Device module ucc_dsp version			F1	R	
FE80H-FEFFFH	65153-65280				Reserved					
Password Block										
FF23H-FF27H	65316-65320				Level 2 User Password	Fixed Length String			W	Ch.8.106
FF28H	65321				Level 2 Password State	Enumeration			R	Ch.8.106
FF29H	65322				Sealing Switch State	Enumeration			R	Ch.8.106
FF2AH	65323				Sealing Switch Timeout Status	Enumeration			R/W	
FF2BH-FF2CH	65324-65325				Reserved	Enumeration			R	
FF2DH	65326				Level 2 Password Lock	Enumeration			R/W	Ch.8.106
FF2EH	65327				Password Sequence/Status	Enumeration			R	Ch.8.106
FF2FH	65328				Password Command	Enumeration			R/W	Ch.8.106
Dynamic Configuration Block										
FF40H	65345				NVRAM Configuration				R	
FF41H	65346				Current Time Stamp Status: MSB first, Bit[15-12] = Current Weekday, 0=Sunday, 6= Saturday Bit[11] = Not defined Bit[10] = Debugging 1 = Line Synch Frequency Valid Bit[09] = IRIG-B Year Valid Bit[08] = Debugging, 1= IRIG-B Time Continue Forwarding) Bit[07] = Active IRIG-B Bit[06] = Active DST Bit[05] = Active Line Synch Bit[04] = Active Cold Load Bit[03] = DST Spring Date, it means current date/time is before DST period starting moment of current calendar year Bit[02] = DST Fall Date, it means current date/time is after DST period ending moment of current calendar year Bit[01] = Active SNTP Bit[00] = 1 = Battery low flag			R		
FF42H	65347				Reserved				R	
FF43H	65348				Reserved				R	
FF44H	65349				Sealing Switch Installed	Enumeration			R	
FF45H	65350				Vswitch state				R	
Hardware Options Block										
FF50H-FF57H	65361-65368				Reserved				R	
Reserved Status Block										
FF60H-FF63H	65377				Reserved				R	
Tiny Encryption Input Block										
FF68H-FF6FH	65385-65392				Tiny Encryption Input Registers				R/W	
Flash Control Block										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
FF80H	65409				Nexus Comm Operation Indicator: MSB first, Bit[00] = 1: Comm Run error (checksum/not found/read).(N/A to RUN). Bit[01] = 1: Programmable Setting error (checksum/not found/read). Bit[02] = 1: CF not found/discovered Bit[03] = 1: Force in boot using default comm. setting.(N/A to RUN). Bit[04] = 1: Meter in BOOT, 0: Meter in RUNTIME Bit[05] = 1: FPGA firmware error (checksum/loading/not found/read). Bit[06] = 1: DSP2 firmware error (checksum/not found/read). Bit[07] = 1: Generic memory test failed.(N/A to RUN). Bit[08] = 1: COMM internal memory test failed. (N/A to RUN). Bit[09] = 1: File system failed. (N/A to RUN). Bit[10] = 1: Logging stopped due to invalid log folder/files. Bit[11] = 1: Running/Pause folder error.(N/A to BOOT) Bit[12] = 1: Scan board failure.(N/A to RUN) Bit[13] = 1: V-switch invalid settings. (N/A to RUN) Bit[14] = 1: IEC 61850 server not running. (N/A to BOOT) Bit[15] = 1: Additional error status are available.(N/A to BOOT)			F112	R	
FF82H	65411				Connected port information	Enumeration			R	
FF85H	65414				DSP Operation Indicator: MSB first, Bit[00] = 1: Comm Run error (checksum/not found/read).(N/A to RUN). Bit[01] = 1: Programmable Setting error (checksum/not found/read). Bit[02] = 1: Not defined Bit[03] = 1: Not defined Bit[04] = 1: Not defined Bit[05] = 1: Data transfer queue overflow Bit[06] = 1: Not defined Bit[07] = 1: Missed watchdog kick, real time break Bit[08] = 1: FRAM initialization failed. Bit[09] = 1: Error detected, LSB is not zero. Bit[10] = 1: Not defined Bit[11] = 1: Not defined Bit[12] = 1: Not defined Bit[13] = 1: Not defined Bit[14] = 1: Not defined Bit[15] = 1: Not defined				R/W	Ch.5
FF88H	65417				Reserved					
FF89H	65418				Reserved					
FF8AH	65419				Reserved					
FF8BH	65420				Reserved					
FF8CH	65421				Reserved					
FFB0H-FFBFH	65457-65472				Meter Reserved					
FFC0H-FFDEH	65473-65503				Reserved					
FFDFH	65504				app restart after profile update, write 0x0001				W	
Update Information Block										
FFE0H	65505				Update status					
FFE1H	65506				Update error code					
FFE2H-FFESH	65507-65510				file data time					
FFE6H	65511				file checksum					
Meter Restart										
FFFAH	65531				Complete Meter Restart Command - write 0x0001				W	
FFFBH	65532				Reserved					
Meter Serial Number										

2: Modbus Map - Holding Registers

Addr. (hex)	Address(4X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
FFFCH-FFFFH	65533-65536				Meter Serial Number	9,999,999,999,999,999 / 0	1	F11	R	16-digit Packed BCD

2.3: Modbus Map Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
Symmetrical Component @3sec, 10min, 2hour P-N channels are available in WYE type hookups P-P channels are available in Delta type hookups										
85F0H-85F3H	34289-34292				3 sec Update RTC Timestamp	12/31/9999	10 msec	F3	R	
85F4H-85F5H	34293-34294				3 sec Symm Comp Mag (Voltage PN) - Zero Sequence	-32768/+32767.999	Volts	F73	R	
85F6H-85F7H	34295-34296				3 sec Symm Comp Mag (Voltage PN) - Pos Sequence	-32768/+32767.999	Volts	F73	R	
85F8H-85F9H	34297-34298				3 sec Symm Comp Mag (Voltage PN) - Neg Sequence	-32768/+32767.999	Volts	F73	R	
85FAH-85FBH	34299-34300				10 min Symm Comp Mag (Voltage PN) - Zero	-32768/+32767.999	Volts	F73	R	
85FCH-85FDH	34301-34302				10 min Symm Comp Mag (Voltage PN) - Pos Sequence	-32768/+32767.999	Volts	F73	R	
85FEH-85FFH	34303-34304				10 min Symm Comp Mag (Voltage PN) - Neg	-32768/+32767.999	Volts	F73	R	
8600H	34305				3 sec Symm Comp Phase (Voltage PN) - Zero Sequence	+180 degree / -180	0.01 degree	F9	R	
8601H	34306				3 sec Symm Comp Phase (Voltage PN) - Pos Sequence	+180 degree / -180	0.01 degree	F9	R	
8602H	34307				3 sec Symm Comp Phase (Voltage PN) - Neg Sequence	+180 degree / -180	0.01 degree	F9	R	
8603H	34308				10 min Symm Comp Phase (Voltage PN) - Zero	+180 degree / -180	0.01 degree	F9	R	
8604H	34309				10 min Symm Comp Phase (Voltage PN) - Pos	+180 degree / -180	0.01 degree	F9	R	
8605H	34310				10 min Symm Comp Phase (Voltage PN) - Neg	+180 degree / -180	0.01 degree	F9	R	
8606H-8607H	34311-34312				3 sec Symm Comp Mag (Current PN) - Zero Sequence	-32768/+32767.999	Amp	F73	R	
8608H-8609H	34313-34314				3 sec Symm Comp Mag (Current PN) - Pos Sequence	-32768/+32767.999	Amp	F73	R	
860AH-860BH	34315-34316				3 sec Symm Comp Mag (Current PN) - Neg Sequence	-32768/+32767.999	Amp	F73	R	
860CH-860DH	34317-34318				10 min Symm Comp Mag (Current PN) - Zero	-32768/+32767.999	Amp	F73	R	
860EH-860FH	34319-34320				10 min Symm Comp Mag (Current PN) - Pos Sequence	-32768/+32767.999	Amp	F73	R	
8610H-8611H	34321-34322				10 min Symm Comp Mag (Current PN) - Neg Sequence	-32768/+32767.999	Amp	F73	R	
8612H	34323				3 sec Symm Comp Phase (Current PN) - Zero Sequence	+180 degree / -180	0.01 degree	F9	R	
8613H	34324				3 sec Symm Comp Phase (Current PN) - Pos Sequence	+180 degree / -180	0.01 degree	F9	R	
8614H	34325				3 sec Symm Comp Phase (Current PN) - Neg Sequence	+180 degree / -180	0.01 degree	F9	R	
8615H	34326				10 min Symm Comp Phase (Current PN) - Zero	+180 degree / -180	0.01 degree	F9	R	
8616H	34327				10 min Symm Comp Phase (Current PN) - Pos	+180 degree / -180	0.01 degree	F9	R	
8617H	34328				10 min Symm Comp Phase (Current PN) - Neg	+180 degree / -180	0.01 degree	F9	R	
8618H-8619H	34329-34330				3 sec Symm Comp Ratio (Current PN) - Zero Sequence	0/65535.9999	1/65536	F79	R	
861AH-861BH	34331-34332				3 sec Symm Comp Ratio (Current PN) - Neg Sequence	0/65535.9999	1/65536	F79	R	
861CH-861DH	34333-34334				3 sec Symm Comp Ratio (Current PP) - Neg Sequence	0/65535.9999	1/65536	F79	R	
861EH-861FH	34335-34336				10 min Symm Comp Ratio (Current PN) - Zero	0/65535.9999	1/65536	F79	R	
8620H-8621H	34337-34338				10 min Symm Comp Ratio (Current PN) - Neg	0/65535.9999	1/65536	F79	R	
8622H-8623H	34339-34340				10 min Symm Comp Ratio (Current PP) - Neg	0/65535.9999	1/65536	F79	R	
8624H-8625H	34341-34342				2 hour Symm Comp Ratio (Current PN) - Zero	0/65535.9999	1/65536	F79	R	
8626H-8627H	34343-34344				2 hour Symm Comp Ratio (Current PN) - Neg	0/65535.9999	1/65536	F79	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
8628H-8629H	34345-34346				2 hour Symm Comp Ratio (Current PP) - Neg Sequence	0/65535.9999	1/65536	F79	R	
862AH	34347				3 sec Unbalance Counter	0/+65535	1	F51	R	
862BH	34348				10 min Unbalance Counter	0/+65536	1	F51	R	
862CH	34349				2 hour Unbalance Counter	0/+65537	1	F51	R	
862DH	34350				Reserved					
862EH-862FH	34351-34352				3 sec Symm Comp Ratio (Voltage PN) - Zero Sequence	0/65535.9999	1/65536	F79	R	
8630H-8631H	34353-34354				3 sec Symm Comp Ratio (Voltage PN) - Neg Sequence	0/65535.9999	1/65536	F79	R	
8632H-8633H	34355-34356				3 sec Symm Comp Ratio (Voltage PP) - Neg Sequence	0/65535.9999	1/65536	F79	R	
8634H-8635H	34357-34358				10 min Symm Comp Ratio (Voltage PN) - Zero	0/65535.9999	1/65536	F79	R	
8636H-8637H	34359-34360				10 min Symm Comp Ratio (Voltage PN) - Neg	0/65535.9999	1/65536	F79	R	
8638H-8639H	34361-34362				10 min Symm Comp Ratio (Voltage PP) - Neg	0/65535.9999	1/65536	F79	R	
863AH-863BH	34363-34364				2 hour Symm Comp Ratio (Voltage PN) - Zero	0/65535.9999	1/65536	F79	R	
863CH-863DH	34365-34366				2 hour Symm Comp Ratio (Voltage PN) - Neg	0/65535.9999	1/65536	F79	R	
863EH-863FH	34367-34368				2 hour Symm Comp Ratio (Voltage PP) - Neg Sequence	0/65535.9999	1/65536	F79	R	
8640H-86EBH	34369-34540				Reserved					
86ECH-86EFH	34541-34544				Reserved					
86F0H-86FFH	34545-34560				Reserved					
Interval Maximum/Minimum/Average block										
8B40H-8B43H	35649-35652				10 min Interval Maximum/Minimum Timestamp	12/31/9999	10 msec	F3	R	
8B44H-8B45H	35653-35654				10 min Interval Maximum RMS Phase A-N Voltage	0/+65535.65535	Volts	F79	R	
8B46H-8B47H	35655-35656				10 min Interval Maximum RMS Phase B-N Voltage	0/+65535.65535	Volts	F79	R	
8B48H-8B49H	35657-35658				10 min Interval Maximum RMS Phase C-N Voltage	0/+65535.65535	Volts	F79	R	
8B4AH-8B4BH	35659-35660				10 min Interval Maximum RMS Phase A-B Voltage	0/+65535.65535	Volts	F79	R	
8B4CH-8B4DH	35661-35662				10 min Interval Maximum RMS Phase B-C Voltage	0/+65535.65535	Volts	F79	R	
8B4EH-8B4FH	35663-35664				10 min Interval Maximum RMS Phase C-A Voltage	0/+65535.65535	Volts	F79	R	
8B50H-8B51H	35665-35666				10 min Interval Maximum RMS Phase X-N Voltage	0/+65535.65535	Volts	F79	R	
8B52H-8B53H	35667-35668				10 min Interval Maximum RMS Phase A-E Voltage	0/+65535.65535	Volts	F79	R	
8B54H-8B55H	35669-35670				10 min Interval Maximum RMS Phase B-E Voltage	0/+65535.65535	Volts	F79	R	
8B56H-8B57H	35671-35672				10 min Interval Maximum RMS Phase C-E Voltage	0/+65535.65535	Volts	F79	R	
8B58H-8B59H	35673-35674				10 min Interval Maximum RMS Phase X-E Voltage	0/+65535.65535	Volts	F79	R	
8B5AH-8B5BH	35675-35676				10 min Interval Maximum RMS Phase N-E Voltage	0/+65535.65535	Volts	F79	R	
8B5CH-8B5DH	35677-35678				10 min Interval Minimum RMS Phase A-N Voltage	0/+65535.65535	Volts	F79	R	
8B5EH-8B5FH	35679-35680				10 min Interval Minimum RMS Phase B-N Voltage	0/+65535.65535	Volts	F79	R	
8B60H-8B61H	35681-35682				10 min Interval Minimum RMS Phase C-N Voltage	0/+65535.65535	Volts	F79	R	
8B62H-8B63H	35683-35684				10 min Interval Minimum RMS Phase A-B Voltage	0/+65535.65535	Volts	F79	R	
8B64H-8B65H	35685-35686				10 min Interval Minimum RMS Phase B-C Voltage	0/+65535.65535	Volts	F79	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
8B66H-8B67H	35687-35688				10 min Interval Minimum RMS Phase C-A Voltage	0/+65535.65535	Volts	F79	R	
8B68H-8B69H	35689-35690				10 min Interval Minimum RMS Phase X-N Voltage	0/+65535.65535	Volts	F79	R	
8B6AH-8B6BH	35691-35692				10 min Interval Minimum RMS Phase A-E Voltage	0/+65535.65535	Volts	F79	R	
8B6CH-8B6DH	35693-35694				10 min Interval Minimum RMS Phase B-E Voltage	0/+65535.65535	Volts	F79	R	
8B6EH-8B6FH	35695-35696				10 min Interval Minimum RMS Phase C-E Voltage	0/+65535.65535	Volts	F79	R	
8B70H-8B71H	35697-35698				10 min Interval Minimum RMS Phase X-E Voltage	0/+65535.65535	Volts	F79	R	
8B72H-8B73H	35699-35700				10 min Interval Minimum RMS Phase N-E Voltage	0/+65535.65535	Volts	F79	R	
8B74H-8B75H	35701-35702				10 min Interval Average RMS Phase A-N Voltage	0/+65535.65535	Volts	F79	R	
8B76H-8B77H	35703-35704				10 min Interval Average RMS Phase B-N Voltage	0/+65535.65535	Volts	F79	R	
8B78H-8B79H	35705-35706				10 min Interval Average RMS Phase C-N Voltage	0/+65535.65535	Volts	F79	R	
8B7AH-8B7BH	35707-35708				10 min Interval Average RMS Phase A-B Voltage	0/+65535.65535	Volts	F79	R	
8B7CH-8B7DH	35709-35710				10 min Interval Average RMS Phase B-C Voltage	0/+65535.65535	Volts	F79	R	
8B7EH-8B7FH	35711-35712				10 min Interval Average RMS Phase C-A Voltage	0/+65535.65535	Volts	F79	R	
8B80H-8B81H	35713-35714				10 min Interval Average RMS Phase X-N Voltage	0/+65535.65535	Volts	F79	R	
8B82H-8B83H	35715-35716				10 min Interval Average RMS Phase A-E Voltage	0/+65535.65535	Volts	F79	R	
8B84H-8B85H	35717-35718				10 min Interval Average RMS Phase B-E Voltage	0/+65535.65535	Volts	F79	R	
8B86H-8B87H	35719-35720				10 min Interval Average RMS Phase C-E Voltage	0/+65535.65535	Volts	F79	R	
8B88H-8B89H	35721-35722				10 min Interval Average RMS Phase X-E Voltage	0/+65535.65535	Volts	F79	R	
8B8AH-8B8BH	35723-35724				10 min Interval Average RMS Phase N-E Voltage	0/+65535.65535	Volts	F79	R	
TOU Data										
D027H	53288	10380	0		Current Month ID 1=Jan, 12=Dec			F51	R	
D028H	53289	10380	1		Prior Month ID 1=Jan, 12=Dec			F51	R	
D029H-D02BH	53290-53292	10381	0		Last month self-read time			F122	R	
D02CH-D02EH	53293-53295	103801	1		Next month self-read time			F122	R	
D02FH	53296	10382	0		Current Season ID			F51	R	
D030H	53297	10382	1		Prior Season ID			F51	R	
D031H-D033H	53298-53300	10383	0		Last season self-read time			F122	R	
D034H-D036H	53301-53303	10383	1		Next season self-read time			F122	R	
					Current Month					

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
		base=10384, group count=96, groups=15			Tier 0 is for total Current Month Tier 0: Whole month data Current Month Tier 1: Whole month data Current Month Tier 2: Whole month data Current Month Tier 3: Whole month data Current Month Tier 4: Whole month data Current Month Tier 0: Initial season data Current Month Tier 1: Initial season data Current Month Tier 2: Initial season data Current Month Tier 3: Initial season data Current Month Tier 4: Initial season data Current Month Tier 0: Final season data Current Month Tier 1: Final season data Current Month Tier 2: Final season data Current Month Tier 3: Final season data Current Month Tier 4: Final season data					
					Current Month, Whole Month, Tier 0					
D037-D038	53304-53305	10384	0		Accumulator for Monitored Data Set 1			F64	R	
D039-D03A	53306-53307	10385	0		Peak Demand for Monitored Data Set 1			F120	R	
D03B-D03C	53308-53309	10386	0		Coincident Demand for Monitored Data Set 1			F120	R	
D03D-D03F	53310-53312	10387	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D041	53313	10388	0		Reserved			F51	R	
D041-D042	53314-53315	10389	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D043-D044	53316-53317	10390	0		Accumulator for Monitored Data Set 2			F64	R	
D045-D046	53318-53319	10391	0		Peak Demand for Monitored Data Set 2			F120	R	
D047-D048	53320-53321	10392	0		Coincident Demand for Monitored Data Set 2			F120	R	
D049-D04B	53322-53324	10393	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D04D	53325	10394	0		Reserved			F51	R	
D04D-D04E	53326-53327	10395	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D04F-D050	53328-53329	10396	0		Accumulator for Monitored Data Set 3			F64	R	
D051-D052	53330-53331	10397	0		Peak Demand for Monitored Data Set 3			F120	R	
D053-D054	53332-53333	10398	0		Coincident Demand for Monitored Data Set 3			F120	R	
D055-D057	53334-53336	10399	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D059	53337	10400	0		Reserved			F51	R	
D059-D05A	53338-53339	10401	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D05B-D05C	53340-53341	10402	0		Accumulator for Monitored Data Set 4			F64	R	
D05D-D05E	53342-53343	10403	0		Peak Demand for Monitored Data Set 4			F120	R	
D05F-D060	53344-53345	10404	0		Coincident Demand for Monitored Data Set 4			F120	R	
D061-D063	53346-53348	10405	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D065	53349	10406	0		Reserved			F51	R	
D065-D066	53350-53351	10407	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D067-D068	53352-53353	10408	0		Accumulator for Monitored Data Set 5			F64	R	
D069-D06A	53354-53355	10409	0		Peak Demand for Monitored Data Set 5			F120	R	
D06B-D06C	53356-53357	10410	0		Coincident Demand for Monitored Data Set 5			F120	R	
D06D-D06F	53358-53360	10411	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D071	53361	10412	0		Reserved			F51	R	
D071-D072	53362-53363	10413	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D073-D074	53364-53365	10414	0		Accumulator for Monitored Data Set 6			F64	R	
D075-D076	53366-53367	10415	0		Peak Demand for Monitored Data Set 6			F120	R	
D077-D078	53368-53369	10416	0		Coincident Demand for Monitored Data Set 6			F120	R	
D079-D07B	53370-53372	10417	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D07D	53373	10418	0		Reserved			F51	R	
D07D-D07E	53374-53375	10419	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D07F-D080	53376-53377	10420	0		Accumulator for Monitored Data Set 7			F64	R	
D081-D082	53378-53379	10421	0		Peak Demand for Monitored Data Set 7			F120	R	
D083-D084	53380-53381	10422	0		Coincident Demand for Monitored Data Set 7			F120	R	
D085-D087	53382-53384	10423	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D089	53385	10424	0		Reserved			F51	R	
D089-D08A	53386-53387	10425	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D08B-D08C	53388-53389	10426	0		Accumulator for Monitored Data Set 8			F64	R	
D08D-D08E	53390-53391	10427	0		Peak Demand for Monitored Data Set 8			F120	R	
D08F-D090	53392-53393	10428	0		Coincident Demand for Monitored Data Set 8			F120	R	
D091-D093	53394-53396	10429	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D095	53397	10430	0		Reserved			F51	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D095-D096	53398-53399	10431	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D097-D098	53400-53401	10432	0		Accumulator for Monitored Data Set 9			F64	R	
D099-D09A	53402-53403	10433	0		Peak Demand for Monitored Data Set 9			F120	R	
D09B-D09C	53404-53405	10434	0		Coincident Demand for Monitored Data Set 9			F120	R	
D09D-D09F	53406-53408	10435	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D0A1	53409	10436	0		Reserved			F51	R	
D0A1-D0A2	53410-53411	10437	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D0A3-D0A4	53412-53413	10438	0		Accumulator for Monitored Data Set 10			F64	R	
D0A5-D0A6	53414-53415	10439	0		Peak Demand for Monitored Data Set 10			F120	R	
D0A7-D0A8	53416-53417	10440	0		Coincident Demand for Monitored Data Set 10			F120	R	
D0A9-D0AB	53418-53420	10441	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D0AD	53421	10442	0		Reserved			F51	R	
D0AD-D0AE	53422-53423	10443	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D0AF-D0B0	53424-53425	10444	0		Accumulator for Monitored Data Set 11			F64	R	
D0B1-D0B2	53426-53427	10445	0		Peak Demand for Monitored Data Set 11			F120	R	
D0B3-D0B4	53428-53429	10446	0		Coincident Demand for Monitored Data Set 11			F120	R	
D0B5-D0B7	53430-53432	10447	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D0B9	53433	10448	0		Reserved			F51	R	
D0B9-D0BA	53434-53435	10449	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D0BB-D0BC	53436-53437	10450	0		Accumulator for Monitored Data Set 12			F64	R	
D0BD-D0BE	53438-53439	10451	0		Peak Demand for Monitored Data Set 12			F120	R	
D0BF-D0C0	53440-53441	10452	0		Coincident Demand for Monitored Data Set 12			F120	R	
D0C1-D0C3	53442-53444	10453	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D0C5	53445	10454	0		Reserved			F51	R	
D0C5-D0C6	53446-53447	10455	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D0C7-D0C8	53448-53449	10456	0		Accumulator for Monitored Data Set 13			F64	R	
D0C9-D0CA	53450-53451	10457	0		Peak Demand for Monitored Data Set 13			F120	R	
D0CB-D0CC	53452-53453	10458	0		Coincident Demand for Monitored Data Set 13			F120	R	
D0CD-D0CF	53454-53456	10459	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D0D1	53457	10460	0		Reserved			F51	R	
D0D1-D0D2	53458-53459	10461	0		Cumulative Demand for Monitored Data Set 13			F52	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D0D3-D0D4	53460-53461	10462	0		Accumulator for Monitored Data Set 14			F64	R	
D0D5-D0D6	53462-53463	10463	0		Peak Demand for Monitored Data Set 14			F120	R	
D0D7-D0D8	53464-53465	10464	0		Coincident Demand for Monitored Data Set 14			F120	R	
D0D9-D0DB	53466-53468	10465	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D0DD	53469	10466	0		Reserved			F51	R	
D0DD-D0DE	53470-53471	10467	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D0DF-D0E0	53472-53473	10468	0		Accumulator for Monitored Data Set 15			F64	R	
D0E1-D0E2	53474-53475	10469	0		Peak Demand for Monitored Data Set 15			F120	R	
D0E3-D0E4	53476-53477	10470	0		Coincident Demand for Monitored Data Set 15			F120	R	
D0E5-D0E7	53478-53480	10471	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D0E9	53481	10472	0		Reserved			F51	R	
D0E9-D0EA	53482-53483	10473	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D0EB-D0EC	53484-53485	10474	0		Accumulator for Monitored Data Set 16			F64	R	
D0ED-D0EE	53486-53487	10475	0		Peak Demand for Monitored Data Set 16			F120	R	
D0EF-D0F0	53488-53489	10476	0		Coincident Demand for Monitored Data Set 16			F120	R	
D0F1-D0F3	53490-53492	10477	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D0F5	53493	10478	0		Reserved			F51	R	
D0F5-D0F6	53494-53495	10479	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Whole Month, Tier 1					
D0F7-D0F8	53496-53497	10480	0		Accumulator for Monitored Data Set 1			F64	R	
D0F9-D0FA	53498-53499	10481	0		Peak Demand for Monitored Data Set 1			F120	R	
D0FB-D0FC	53500-53501	10482	0		Coincident Demand for Monitored Data Set 1			F120	R	
D0FD-D0FF	53502-53504	10483	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D101	53505	10484	0		Reserved			F51	R	
D101-D102	53506-53507	10485	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D103-D104	53508-53509	10486	0		Accumulator for Monitored Data Set 2			F64	R	
D105-D106	53510-53511	10487	0		Peak Demand for Monitored Data Set 2			F120	R	
D107-D108	53512-53513	10488	0		Coincident Demand for Monitored Data Set 2			F120	R	
D109-D10B	53514-53516	10489	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D10D	53517	10490	0		Reserved			F51	R	
D10D-D10E	53518-53519	10491	0		Cumulative Demand for Monitored Data Set 2			F52	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D10F-D110	53520-53521	10492	0		Accumulator for Monitored Data Set 3			F64	R	
D111-D112	53522-53523	10493	0		Peak Demand for Monitored Data Set 3			F120	R	
D113-D114	53524-53525	10494	0		Coincident Demand for Monitored Data Set 3			F120	R	
D115-D117	53526-53528	10495	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D119	53529	10496	0		Reserved			F51	R	
D119-D11A	53530-53531	10497	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D11B-D11C	53532-53533	10498	0		Accumulator for Monitored Data Set 4			F64	R	
D11D-D11E	53534-53535	10499	0		Peak Demand for Monitored Data Set 4			F120	R	
D11F-D120	53536-53537	10500	0		Coincident Demand for Monitored Data Set 4			F120	R	
D121-D123	53538-53540	10501	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D125	53541	10502	0		Reserved			F51	R	
D125-D126	53542-53543	10503	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D127-D128	53544-53545	10504	0		Accumulator for Monitored Data Set 5			F64	R	
D129-D12A	53546-53547	10505	0		Peak Demand for Monitored Data Set 5			F120	R	
D12B-D12C	53548-53549	10506	0		Coincident Demand for Monitored Data Set 5			F120	R	
D12D-D12F	53550-53552	10507	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D131	53553	10508	0		Reserved			F51	R	
D131-D132	53554-53555	10509	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D133-D134	53556-53557	10510	0		Accumulator for Monitored Data Set 6			F64	R	
D135-D136	53558-53559	10511	0		Peak Demand for Monitored Data Set 6			F120	R	
D137-D138	53560-53561	10512	0		Coincident Demand for Monitored Data Set 6			F120	R	
D139-D13B	53562-53564	10513	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D13D	53565	10514	0		Reserved			F51	R	
D13D-D13E	53566-53567	10515	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D13F-D140	53568-53569	10516	0		Accumulator for Monitored Data Set 7			F64	R	
D141-D142	53570-53571	10517	0		Peak Demand for Monitored Data Set 7			F120	R	
D143-D144	53572-53573	10518	0		Coincident Demand for Monitored Data Set 7			F120	R	
D145-D147	53574-53576	10519	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D149	53577	10520	0		Reserved			F51	R	
D149-D14A	53578-53579	10521	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D14B-D14C	53580-53581	10522	0		Accumulator for Monitored Data Set 8			F64	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D14D-D14E	53582-53583	10523	0		Peak Demand for Monitored Data Set 8			F120	R	
D14F-D150	53584-53585	10524	0		Coincident Demand for Monitored Data Set 8			F120	R	
D151-D153	53586-53588	10525	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D155	53589	10526	0		Reserved			F51	R	
D155-D156	53590-53591	10527	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D157-D158	53592-53593	10528	0		Accumulator for Monitored Data Set 9			F64	R	
D159-D15A	53594-53595	10529	0		Peak Demand for Monitored Data Set 9			F120	R	
D15B-D15C	53596-53597	10530	0		Coincident Demand for Monitored Data Set 9			F120	R	
D15D-D15F	53598-53600	10531	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D161	53601	10532	0		Reserved			F51	R	
D161-D162	53602-53603	10533	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D163-D164	53604-53605	10534	0		Accumulator for Monitored Data Set 10			F64	R	
D165-D166	53606-53607	10535	0		Peak Demand for Monitored Data Set 10			F120	R	
D167-D168	53608-53609	10536	0		Coincident Demand for Monitored Data Set 10			F120	R	
D169-D16B	53610-53612	10537	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D16D	53613	10538	0		Reserved			F51	R	
D16D-D16E	53614-53615	10539	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D16F-D170	53616-53617	10540	0		Accumulator for Monitored Data Set 11			F64	R	
D171-D172	53618-53619	10541	0		Peak Demand for Monitored Data Set 11			F120	R	
D173-D174	53620-53621	10542	0		Coincident Demand for Monitored Data Set 11			F120	R	
D175-D177	53622-53624	10543	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D179	53625	10544	0		Reserved			F51	R	
D179-D17A	53626-53627	10545	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D17B-D17C	53628-53629	10546	0		Accumulator for Monitored Data Set 12			F64	R	
D17D-D17E	53630-53631	10547	0		Peak Demand for Monitored Data Set 12			F120	R	
D17F-D180	53632-53633	10548	0		Coincident Demand for Monitored Data Set 12			F120	R	
D181-D183	53634-53636	10549	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D185	53637	10550	0		Reserved			F51	R	
D185-D186	53638-53639	10551	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D187-D188	53640-53641	10552	0		Accumulator for Monitored Data Set 13			F64	R	
D189-D18A	53642-53643	10553	0		Peak Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D18B-D18C	53644-53645	10554	0		Coincident Demand for Monitored Data Set 13			F120	R	
D18D-D18F	53646-53648	10555	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D191	53649	10556	0		Reserved			F51	R	
D191-D192	53650-53651	10557	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D193-D194	53652-53653	10558	0		Accumulator for Monitored Data Set 14			F64	R	
D195-D196	53654-53655	10559	0		Peak Demand for Monitored Data Set 14			F120	R	
D197-D198	53656-53657	10560	0		Coincident Demand for Monitored Data Set 14			F120	R	
D199-D19B	53658-53660	10561	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D19D	53661	10562	0		Reserved			F51	R	
D19D-D19E	53662-53663	10563	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D19F-D1A0	53664-53665	10564	0		Accumulator for Monitored Data Set 15			F64	R	
D1A1-D1A2	53666-53667	10565	0		Peak Demand for Monitored Data Set 15			F120	R	
D1A3-D1A4	53668-53669	10566	0		Coincident Demand for Monitored Data Set 15			F120	R	
D1A5-D1A7	53670-53672	10567	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D1A9	53673	10568	0		Reserved			F51	R	
D1A9-D1AA	53674-53675	10569	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D1AB-D1AC	53676-53677	10570	0		Accumulator for Monitored Data Set 16			F64	R	
D1AD-D1AE	53678-53679	10571	0		Peak Demand for Monitored Data Set 16			F120	R	
D1AF-D1B0	53680-53681	10572	0		Coincident Demand for Monitored Data Set 16			F120	R	
D1B1-D1B3	53682-53684	10573	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D1B5	53685	10574	0		Reserved			F51	R	
D1B5-D1B6	53686-53687	10575	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Whole Month, Tier 2					
D1B7-D1B8	53688-53689	10576	0		Accumulator for Monitored Data Set 1			F64	R	
D1B9-D1BA	53690-53691	10577	0		Peak Demand for Monitored Data Set 1			F120	R	
D1BB-D1BC	53692-53693	10578	0		Coincident Demand for Monitored Data Set 1			F120	R	
D1BD-D1BF	53694-53696	10579	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D1C1	53697	10580	0		Reserved			F51	R	
D1C1-D1C2	53698-53699	10581	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D1C3-D1C4	53700-53701	10582	0		Accumulator for Monitored Data Set 2			F64	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D1C5-D1C6	53702-53703	10583	0		Peak Demand for Monitored Data Set 2			F120	R	
D1C7-D1C8	53704-53705	10584	0		Coincident Demand for Monitored Data Set 2			F120	R	
D1C9-D1CB	53706-53708	10585	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D1CD	53709	10586	0		Reserved			F51	R	
D1CD-D1CE	53710-53711	10587	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D1CF-D1D0	53712-53713	10588	0		Accumulator for Monitored Data Set 3			F64	R	
D1D1-D1D2	53714-53715	10589	0		Peak Demand for Monitored Data Set 3			F120	R	
D1D3-D1D4	53716-53717	10590	0		Coincident Demand for Monitored Data Set 3			F120	R	
D1D5-D1D7	53718-53720	10591	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D1D9	53721	10592	0		Reserved			F51	R	
D1D9-D1DA	53722-53723	10593	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D1DB-D1DC	53724-53725	10594	0		Accumulator for Monitored Data Set 4			F64	R	
D1DD-D1DE	53726-53727	10595	0		Peak Demand for Monitored Data Set 4			F120	R	
D1DF-D1E0	53728-53729	10596	0		Coincident Demand for Monitored Data Set 4			F120	R	
D1E1-D1E3	53730-53732	10597	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D1E5	53733	10598	0		Reserved			F51	R	
D1E5-D1E6	53734-53735	10599	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D1E7-D1E8	53736-53737	10600	0		Accumulator for Monitored Data Set 5			F64	R	
D1E9-D1EA	53738-53739	10601	0		Peak Demand for Monitored Data Set 5			F120	R	
D1EB-D1EC	53740-53741	10602	0		Coincident Demand for Monitored Data Set 5			F120	R	
D1ED-D1EF	53742-53744	10603	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D1F1	53745	10604	0		Reserved			F51	R	
D1F1-D1F2	53746-53747	10605	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D1F3-D1F4	53748-53749	10606	0		Accumulator for Monitored Data Set 6			F64	R	
D1F5-D1F6	53750-53751	10607	0		Peak Demand for Monitored Data Set 6			F120	R	
D1F7-D1F8	53752-53753	10608	0		Coincident Demand for Monitored Data Set 6			F120	R	
D1F9-D1FB	53754-53756	10609	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D1FD	53757	10610	0		Reserved			F51	R	
D1FD-D1FE	53758-53759	10611	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D1FF-D200	53760-53761	10612	0		Accumulator for Monitored Data Set 7			F64	R	
D201-D202	53762-53763	10613	0		Peak Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D203-D204	53764-53765	10614	0		Coincident Demand for Monitored Data Set 7			F120	R	
D205-D207	53766-53768	10615	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D209	53769	10616	0		Reserved			F51	R	
D209-D20A	53770-53771	10617	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D20B-D20C	53772-53773	10618	0		Accumulator for Monitored Data Set 8			F64	R	
D20D-D20E	53774-53775	10619	0		Peak Demand for Monitored Data Set 8			F120	R	
D20F-D210	53776-53777	10620	0		Coincident Demand for Monitored Data Set 8			F120	R	
D211-D213	53778-53780	10621	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D215	53781	10622	0		Reserved			F51	R	
D215-D216	53782-53783	10623	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D217-D218	53784-53785	10624	0		Accumulator for Monitored Data Set 9			F64	R	
D219-D21A	53786-53787	10625	0		Peak Demand for Monitored Data Set 9			F120	R	
D21B-D21C	53788-53789	10626	0		Coincident Demand for Monitored Data Set 9			F120	R	
D21D-D21F	53790-53792	10627	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D221	53793	10628	0		Reserved			F51	R	
D221-D222	53794-53795	10629	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D223-D224	53796-53797	10630	0		Accumulator for Monitored Data Set 10			F64	R	
D225-D226	53798-53799	10631	0		Peak Demand for Monitored Data Set 10			F120	R	
D227-D228	53800-53801	10632	0		Coincident Demand for Monitored Data Set 10			F120	R	
D229-D22B	53802-53804	10633	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D22D	53805	10634	0		Reserved			F51	R	
D22D-D22E	53806-53807	10635	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D22F-D230	53808-53809	10636	0		Accumulator for Monitored Data Set 11			F64	R	
D231-D232	53810-53811	10637	0		Peak Demand for Monitored Data Set 11			F120	R	
D233-D234	53812-53813	10638	0		Coincident Demand for Monitored Data Set 11			F120	R	
D235-D237	53814-53816	10639	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D239	53817	10640	0		Reserved			F51	R	
D239-D23A	53818-53819	10641	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D23B-D23C	53820-53821	10642	0		Accumulator for Monitored Data Set 12			F64	R	
D23D-D23E	53822-53823	10643	0		Peak Demand for Monitored Data Set 12			F120	R	
D23F-D240	53824-53825	10644	0		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D241-D243	53826-53828	10645	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D245	53829	10646	0		Reserved			F51	R	
D245-D246	53830-53831	10647	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D247-D248	53832-53833	10648	0		Accumulator for Monitored Data Set 13			F64	R	
D249-D24A	53834-53835	10649	0		Peak Demand for Monitored Data Set 13			F120	R	
D24B-D24C	53836-53837	10650	0		Coincident Demand for Monitored Data Set 13			F120	R	
D24D-D24F	53838-53840	10651	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D251	53841	10652	0		Reserved			F51	R	
D251-D252	53842-53843	10653	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D253-D254	53844-53845	10654	0		Accumulator for Monitored Data Set 14			F64	R	
D255-D256	53846-53847	10655	0		Peak Demand for Monitored Data Set 14			F120	R	
D257-D258	53848-53849	10656	0		Coincident Demand for Monitored Data Set 14			F120	R	
D259-D25B	53850-53852	10657	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D25D	53853	10658	0		Reserved			F51	R	
D25D-D25E	53854-53855	10659	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D25F-D260	53856-53857	10660	0		Accumulator for Monitored Data Set 15			F64	R	
D261-D262	53858-53859	10661	0		Peak Demand for Monitored Data Set 15			F120	R	
D263-D264	53860-53861	10662	0		Coincident Demand for Monitored Data Set 15			F120	R	
D265-D267	53862-53864	10663	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D269	53865	10664	0		Reserved			F51	R	
D269-D26A	53866-53867	10665	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D26B-D26C	53868-53869	10666	0		Accumulator for Monitored Data Set 16			F64	R	
D26D-D26E	53870-53871	10667	0		Peak Demand for Monitored Data Set 16			F120	R	
D26F-D270	53872-53873	10668	0		Coincident Demand for Monitored Data Set 16			F120	R	
D271-D273	53874-53876	10669	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D275	53877	10670	0		Reserved			F51	R	
D275-D276	53878-53879	10671	0		Cumulative Demand for Monitored Data Set 16			F52	R	
D277-D278	53880-53881	10672	0		Accumulator for Monitored Data Set 1			F64	R	
D279-D27A	53882-53883	10673	0		Peak Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D27B-D27C	53884-53885	10674	0		Coincident Demand for Monitored Data Set 1			F120	R	
D27D-D27F	53886-53888	10675	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D281	53889	10676	0		Reserved			F51	R	
D281-D282	53890-53891	10677	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D283-D284	53892-53893	10678	0		Accumulator for Monitored Data Set 2			F64	R	
D285-D286	53894-53895	10679	0		Peak Demand for Monitored Data Set 2			F120	R	
D287-D288	53896-53897	10680	0		Coincident Demand for Monitored Data Set 2			F120	R	
D289-D28B	53898-53900	10681	0					F122	R	
D28D	53901	10682	0		Reserved			F51	R	
D28D-D28E	53902-53903	10683	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D28F-D290	53904-53905	10684	0		Accumulator for Monitored Data Set 3			F64	R	
D291-D292	53906-53907	10685	0		Peak Demand for Monitored Data Set 3			F120	R	
D293-D294	53908-53909	10686	0		Coincident Demand for Monitored Data Set 3			F120	R	
D295-D297	53910-53912	10687	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D299	53913	10688	0		Reserved			F51	R	
D299-D29A	53914-53915	10689	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D29B-D29C	53916-53917	10690	0		Accumulator for Monitored Data Set 4			F64	R	
D29D-D29E	53918-53919	10691	0		Peak Demand for Monitored Data Set 4			F120	R	
D29F-D2A0	53920-53921	10692	0		Coincident Demand for Monitored Data Set 4			F120	R	
D2A1-D2A3	53922-53924	10693	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D2A5	53925	10694	0		Reserved			F51	R	
D2A5-D2A6	53926-53927	10695	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D2A7-D2A8	53928-53929	10696	0		Accumulator for Monitored Data Set 5			F64	R	
D2A9-D2AA	53930-53931	10697	0		Peak Demand for Monitored Data Set 5			F120	R	
D2AB-D2AC	53932-53933	10698	0		Coincident Demand for Monitored Data Set 5			F120	R	
D2AD-D2AF	53934-53936	10699	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D2B1	53937	10700	0		Reserved			F51	R	
D2B1-D2B2	53938-53939	10701	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D2B3-D2B4	53940-53941	10702	0		Accumulator for Monitored Data Set 6			F64	R	
D2B5-D2B6	53942-53943	10703	0		Peak Demand for Monitored Data Set 6			F120	R	
D2B7-D2B8	53944-53945	10704	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D2B9-D2BB	53946-53948	10705	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D2BD	53949	10706	0		Reserved			F51	R	
D2BD-D2BE	53950-53951	10707	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D2BF-D2C0	53952-53953	10708	0		Accumulator for Monitored Data Set 7			F64	R	
D2C1-D2C2	53954-53955	10709	0		Peak Demand for Monitored Data Set 7			F120	R	
D2C3-D2C4	53956-53957	10710	0		Coincident Demand for Monitored Data Set 7			F120	R	
D2C5-D2C7	53958-53960	10711	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D2C9	53961	10712	0		Reserved			F51	R	
D2C9-D2CA	53962-53963	10713	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D2CB-D2CC	53964-53965	10714	0		Accumulator for Monitored Data Set 8			F64	R	
D2CD-D2CE	53966-53967	10715	0		Peak Demand for Monitored Data Set 8			F120	R	
D2CF-D2D0	53968-53969	10716	0		Coincident Demand for Monitored Data Set 8			F120	R	
D2D1-D2D3	53970-53972	10717	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D2D5	53973	10718	0		Reserved			F51	R	
D2D5-D2D6	53974-53975	10719	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D2D7-D2D8	53976-53977	10720	0		Accumulator for Monitored Data Set 9			F64	R	
D2D9-D2DA	53978-53979	10721	0		Peak Demand for Monitored Data Set 9			F120	R	
D2DB-D2DC	53980-53981	10722	0		Coincident Demand for Monitored Data Set 9			F120	R	
D2DD-D2DF	53982-53984	10723	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D2E1	53985	10724	0		Reserved			F51	R	
D2E1-D2E2	53986-53987	10725	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D2E3-D2E4	53988-53989	10726	0		Accumulator for Monitored Data Set 10			F64	R	
D2E5-D2E6	53990-53991	10727	0		Peak Demand for Monitored Data Set 10			F120	R	
D2E7-D2E8	53992-53993	10728	0		Coincident Demand for Monitored Data Set 10			F120	R	
D2E9-D2EB	53994-53996	10729	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D2ED	53997	10730	0		Reserved			F51	R	
D2ED-D2EE	53998-53999	10731	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D2EF-D2F0	54000-54001	10732	0		Accumulator for Monitored Data Set 11			F64	R	
D2F1-D2F2	54002-54003	10733	0		Peak Demand for Monitored Data Set 11			F120	R	
D2F3-D2F4	54004-54005	10734	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D2F5-D2F7	54006-54008	10735	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D2F9	54009	10736	0		Reserved			F51	R	
D2F9-D2FA	54010-54011	10737	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D2FB-D2FC	54012-54013	10738	0		Accumulator for Monitored Data Set 12			F64	R	
D2FD-D2FE	54014-54015	10739	0		Peak Demand for Monitored Data Set 12			F120	R	
D2FF-D300	54016-54017	10740	0		Coincident Demand for Monitored Data Set 12			F120	R	
D301-D303	54018-54020	10741	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D305	54021	10742	0		Reserved			F51	R	
D305-D306	54022-54023	10743	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D307-D308	54024-54025	10744	0		Accumulator for Monitored Data Set 13			F64	R	
D309-D30A	54026-54027	10745	0		Peak Demand for Monitored Data Set 13			F120	R	
D30B-D30C	54028-54029	10746	0		Coincident Demand for Monitored Data Set 13			F120	R	
D30D-D30F	54030-54032	10747	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D311	54033	10748	0		Reserved			F51	R	
D311-D312	54034-54035	10749	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D313-D314	54036-54037	10750	0		Accumulator for Monitored Data Set 14			F64	R	
D315-D316	54038-54039	10751	0		Peak Demand for Monitored Data Set 14			F120	R	
D317-D318	54040-54041	10752	0		Coincident Demand for Monitored Data Set 14			F120	R	
D319-D31B	54042-54044	10753	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D31D	54045	10754	0		Reserved			F51	R	
D31D-D31E	54046-54047	10755	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D31F-D320	54048-54049	10756	0		Accumulator for Monitored Data Set 15			F64	R	
D321-D322	54050-54051	10757	0		Peak Demand for Monitored Data Set 15			F120	R	
D323-D324	54052-54053	10758	0		Coincident Demand for Monitored Data Set 15			F120	R	
D325-D327	54054-54056	10759	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D329	54057	10760	0		Reserved			F51	R	
D329-D32A	54058-54059	10761	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D32B-D32C	54060-54061	10762	0		Accumulator for Monitored Data Set 16			F64	R	
D32D-D32E	54062-54063	10763	0		Peak Demand for Monitored Data Set 16			F120	R	
D32F-D330	54064-54065	10764	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D331-D333	54066-54068	10765	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D335	54069	10766	0		Reserved			F51	R	
D335-D336	54070-54071	10767	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Whole Month, Tier 4					
D337-D338	54072-54073	10768	0		Accumulator for Monitored Data Set 1			F64	R	
D339-D33A	54074-54075	10769	0		Peak Demand for Monitored Data Set 1			F120	R	
D33B-D33C	54076-54077	10770	0		Coincident Demand for Monitored Data Set 1			F120	R	
D33D-D33F	54078-54080	10771	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D341	54081	10772	0		Reserved			F51	R	
D341-D342	54082-54083	10773	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D343-D344	54084-54085	10774	0		Accumulator for Monitored Data Set 2			F64	R	
D345-D346	54086-54087	10775	0		Peak Demand for Monitored Data Set 2			F120	R	
D347-D348	54088-54089	10776	0		Coincident Demand for Monitored Data Set 2			F120	R	
D349-D34B	54090-54092	10777	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D34D	54093	10778	0		Reserved			F51	R	
D34D-D34E	54094-54095	10779	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D34F-D350	54096-54097	10780	0		Accumulator for Monitored Data Set 3			F64	R	
D351-D352	54098-54099	10781	0		Peak Demand for Monitored Data Set 3			F120	R	
D353-D354	54100-54101	10782	0		Coincident Demand for Monitored Data Set 3			F120	R	
D355-D357	54102-54104	10783	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D359	54105	10784	0		Reserved			F51	R	
D359-D35A	54106-54107	10785	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D35B-D35C	54108-54109	10786	0		Accumulator for Monitored Data Set 4			F64	R	
D35D-D35E	54110-54111	10787	0		Peak Demand for Monitored Data Set 4			F120	R	
D35F-D360	54112-54113	10788	0		Coincident Demand for Monitored Data Set 4			F120	R	
D361-D363	54114-54116	10789	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D365	54117	10790	0		Reserved			F51	R	
D365-D366	54118-54119	10791	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D367-D368	54120-54121	10792	0		Accumulator for Monitored Data Set 5			F64	R	
D369-D36A	54122-54123	10793	0		Peak Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D36B-D36C	54124-54125	10794	0		Coincident Demand for Monitored Data Set 5			F120	R	
D36D-D36F	54126-54128	10795	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D371	54129	10796	0		Reserved			F51	R	
D371-D372	54130-54131	10797	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D373-D374	54132-54133	10798	0		Accumulator for Monitored Data Set 6			F64	R	
D375-D376	54134-54135	10799	0		Peak Demand for Monitored Data Set 6			F120	R	
D377-D378	54136-54137	10800	0		Coincident Demand for Monitored Data Set 6			F120	R	
D379-D37B	54138-54140	10801	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D37D	54141	10802	0		Reserved			F51	R	
D37D-D37E	54142-54143	10803	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D37F-D380	54144-54145	10804	0		Accumulator for Monitored Data Set 7			F64	R	
D381-D382	54146-54147	10805	0		Peak Demand for Monitored Data Set 7			F120	R	
D383-D384	54148-54149	10806	0		Coincident Demand for Monitored Data Set 7			F120	R	
D385-D387	54150-54152	10807	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D389	54153	10808	0		Reserved			F51	R	
D389-D38A	54154-54155	10809	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D38B-D38C	54156-54157	10810	0		Accumulator for Monitored Data Set 8			F64	R	
D38D-D38E	54158-54159	10811	0		Peak Demand for Monitored Data Set 8			F120	R	
D38F-D390	54160-54161	10812	0		Coincident Demand for Monitored Data Set 8			F120	R	
D391-D393	54162-54164	10813	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D395	54165	10814	0		Reserved			F51	R	
D395-D396	54166-54167	10815	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D397-D398	54168-54169	10816	0		Accumulator for Monitored Data Set 9			F64	R	
D399-D39A	54170-54171	10817	0		Peak Demand for Monitored Data Set 9			F120	R	
D39B-D39C	54172-54173	10818	0		Coincident Demand for Monitored Data Set 9			F120	R	
D39D-D39F	54174-54176	10819	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D3A1	54177	10820	0		Reserved			F51	R	
D3A1-D3A2	54178-54179	10821	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D3A3-D3A4	54180-54181	10822	0		Accumulator for Monitored Data Set 10			F64	R	
D3A5-D3A6	54182-54183	10823	0		Peak Demand for Monitored Data Set 10			F120	R	
D3A7-D3A8	54184-54185	10824	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D3A9-D3AB	54186-54188	10825	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D3AD	54189	10826	0		Reserved			F51	R	
D3AD-D3AE	54190-54191	10827	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D3AF-D3B0	54192-54193	10828	0		Accumulator for Monitored Data Set 11			F64	R	
D3B1-D3B2	54194-54195	10829	0		Peak Demand for Monitored Data Set 11			F120	R	
D3B3-D3B4	54196-54197	10830	0		Coincident Demand for Monitored Data Set 11			F120	R	
D3B5-D3B7	54198-54200	10831	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D3B9	54201	10832	0		Reserved			F51	R	
D3B9-D3BA	54202-54203	10833	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D3BB-D3BC	54204-54205	10834	0		Accumulator for Monitored Data Set 12			F64	R	
D3BD-D3BE	54206-54207	10835	0		Peak Demand for Monitored Data Set 12			F120	R	
D3BF-D3C0	54208-54209	10836	0		Coincident Demand for Monitored Data Set 12			F120	R	
D3C1-D3C3	54210-54212	10837	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D3C5	54213	10838	0		Reserved			F51	R	
D3C5-D3C6	54214-54215	10839	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D3C7-D3C8	54216-54217	10840	0		Accumulator for Monitored Data Set 13			F64	R	
D3C9-D3CA	54218-54219	10841	0		Peak Demand for Monitored Data Set 13			F120	R	
D3CB-D3CC	54220-54221	10842	0		Coincident Demand for Monitored Data Set 13			F120	R	
D3CD-D3CF	54222-54224	10843	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D3D1	54225	10844	0		Reserved			F51	R	
D3D1-D3D2	54226-54227	10845	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D3D3-D3D4	54228-54229	10846	0		Accumulator for Monitored Data Set 14			F64	R	
D3D5-D3D6	54230-54231	10847	0		Peak Demand for Monitored Data Set 14			F120	R	
D3D7-D3D8	54232-54233	10848	0		Coincident Demand for Monitored Data Set 14			F120	R	
D3D9-D3DB	54234-54236	10849	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D3DD	54237	10850	0		Reserved			F51	R	
D3DD-D3DE	54238-54239	10851	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D3DF-D3E0	54240-54241	10852	0		Accumulator for Monitored Data Set 15			F64	R	
D3E1-D3E2	54242-54243	10853	0		Peak Demand for Monitored Data Set 15			F120	R	
D3E3-D3E4	54244-54245	10854	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D3E5-D3E7	54246-54248	10855	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D3E9	54249	10856	0		Reserved			F51	R	
D3E9-D3EA	54250-54251	10857	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D3EB-D3EC	54252-54253	10858	0		Accumulator for Monitored Data Set 16			F64	R	
D3ED-D3EE	54254-54255	10859	0		Peak Demand for Monitored Data Set 16			F120	R	
D3EF-D3F0	54256-54257	10860	0		Coincident Demand for Monitored Data Set 16			F120	R	
D3F1-D3F3	54258-54260	10861	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D3F5	54261	10862	0		Reserved			F51	R	
D3F5-D3F6	54262-54263	10863	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Initial Season, Tier 0					
D3F7-D3F8	54264-54265	10864	0		Accumulator for Monitored Data Set 1			F64	R	
D3F9-D3FA	54266-54267	10865	0		Peak Demand for Monitored Data Set 1			F120	R	
D3FB-D3FC	54268-54269	10866	0		Coincident Demand for Monitored Data Set 1			F120	R	
D3FD-D3FF	54270-54272	10867	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D401	54273	10868	0		Reserved			F51	R	
D401-D402	54274-54275	10869	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D403-D404	54276-54277	10870	0		Accumulator for Monitored Data Set 2			F64	R	
D405-D406	54278-54279	10871	0		Peak Demand for Monitored Data Set 2			F120	R	
D407-D408	54280-54281	10872	0		Coincident Demand for Monitored Data Set 2			F120	R	
D409-D40B	54282-54284	10873	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D40D	54285	10874	0		Reserved			F51	R	
D40D-D40E	54286-54287	10875	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D40F-D410	54288-54289	10876	0		Accumulator for Monitored Data Set 3			F64	R	
D411-D412	54290-54291	10877	0		Peak Demand for Monitored Data Set 3			F120	R	
D413-D414	54292-54293	10878	0		Coincident Demand for Monitored Data Set 3			F120	R	
D415-D417	54294-54296	10879	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D419	54297	10880	0		Reserved			F51	R	
D419-D41A	54298-54299	10881	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D41B-D41C	54300-54301	10882	0		Accumulator for Monitored Data Set 4			F64	R	
D41D-D41E	54302-54303	10883	0		Peak Demand for Monitored Data Set 4			F120	R	
D41F-D420	54304-54305	10884	0		Coincident Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D421-D423	54306-54308	10885	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D425	54309	10886	0		Reserved			F51	R	
D425-D426	54310-54311	10887	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D427-D428	54312-54313	10888	0		Accumulator for Monitored Data Set 5			F64	R	
D429-D42A	54314-54315	10889	0		Peak Demand for Monitored Data Set 5			F120	R	
D42B-D42C	54316-54317	10890	0		Coincident Demand for Monitored Data Set 5			F120	R	
D42D-D42F	54318-54320	10891	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D431	54321	10892	0		Reserved			F51	R	
D431-D432	54322-54323	10893	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D433-D434	54324-54325	10894	0		Accumulator for Monitored Data Set 6			F64	R	
D435-D436	54326-54327	10895	0		Peak Demand for Monitored Data Set 6			F120	R	
D437-D438	54328-54329	10896	0		Coincident Demand for Monitored Data Set 6			F120	R	
D439-D43B	54330-54332	10897	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D43D	54333	10898	0		Reserved			F51	R	
D43D-D43E	54334-54335	10899	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D43F-D440	54336-54337	10900	0		Accumulator for Monitored Data Set 7			F64	R	
D441-D442	54338-54339	10901	0		Peak Demand for Monitored Data Set 7			F120	R	
D443-D444	54340-54341	10902	0		Coincident Demand for Monitored Data Set 7			F120	R	
D445-D447	54342-54344	10903	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D449	54345	10904	0		Reserved			F51	R	
D449-D44A	54346-54347	10905	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D44B-D44C	54348-54349	10906	0		Accumulator for Monitored Data Set 8			F64	R	
D44D-D44E	54350-54351	10907	0		Peak Demand for Monitored Data Set 8			F120	R	
D44F-D450	54352-54353	10908	0		Coincident Demand for Monitored Data Set 8			F120	R	
D451-D453	54354-54356	10909	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D455	54357	10910	0		Reserved			F51	R	
D455-D456	54358-54359	10911	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D457-D458	54360-54361	10912	0		Accumulator for Monitored Data Set 9			F64	R	
D459-D45A	54362-54363	10913	0		Peak Demand for Monitored Data Set 9			F120	R	
D45B-D45C	54364-54365	10914	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D45D-D45F	54366-54368	10915	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D461	54369	10916	0		Reserved			F51	R	
D461-D462	54370-54371	10917	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D463-D464	54372-54373	10918	0		Accumulator for Monitored Data Set 10			F64	R	
D465-D466	54374-54375	10919	0		Peak Demand for Monitored Data Set 10			F120	R	
D467-D468	54376-54377	10920	0		Coincident Demand for Monitored Data Set 10			F120	R	
D469-D46B	54378-54380	10921	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D46D	54381	10922	0		Reserved			F51	R	
D46D-D46E	54382-54383	10923	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D46F-D470	54384-54385	10924	0		Accumulator for Monitored Data Set 11			F64	R	
D471-D472	54386-54387	10925	0		Peak Demand for Monitored Data Set 11			F120	R	
D473-D474	54388-54389	10926	0		Coincident Demand for Monitored Data Set 11			F120	R	
D475-D477	54390-54392	10927	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D479	54393	10928	0		Reserved			F51	R	
D479-D47A	54394-54395	10929	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D47B-D47C	54396-54397	10930	0		Accumulator for Monitored Data Set 12			F64	R	
D47D-D47E	54398-54399	10931	0		Peak Demand for Monitored Data Set 12			F120	R	
D47F-D480	54400-54401	10932	0		Coincident Demand for Monitored Data Set 12			F120	R	
D481-D483	54402-54404	10933	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D485	54405	10934	0		Reserved			F51	R	
D485-D486	54406-54407	10935	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D487-D488	54408-54409	10936	0		Accumulator for Monitored Data Set 13			F64	R	
D489-D48A	54410-54411	10937	0		Peak Demand for Monitored Data Set 13			F120	R	
D48B-D48C	54412-54413	10938	0		Coincident Demand for Monitored Data Set 13			F120	R	
D48D-D48F	54414-54416	10939	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D491	54417	10940	0		Reserved			F51	R	
D491-D492	54418-54419	10941	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D493-D494	54420-54421	10942	0		Accumulator for Monitored Data Set 14			F64	R	
D495-D496	54422-54423	10943	0		Peak Demand for Monitored Data Set 14			F120	R	
D497-D498	54424-54425	10944	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D499-D49B	54426-54428	10945	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D49D	54429	10946	0		Reserved			F51	R	
D49D-D49E	54430-54431	10947	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D49F-D4A0	54432-54433	10948	0		Accumulator for Monitored Data Set 15			F64	R	
D4A1-D4A2	54434-54435	10949	0		Peak Demand for Monitored Data Set 15			F120	R	
D4A3-D4A4	54436-54437	10950	0		Coincident Demand for Monitored Data Set 15			F120	R	
D4A5-D4A7	54438-54440	10951	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D4A9	54441	10952	0		Reserved			F51	R	
D4A9-D4AA	54442-54443	10953	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D4AB-D4AC	54444-54445	10954	0		Accumulator for Monitored Data Set 16			F64	R	
D4AD-D4AE	54446-54447	10955	0		Peak Demand for Monitored Data Set 16			F120	R	
D4AF-D4B0	54448-54449	10956	0		Coincident Demand for Monitored Data Set 16			F120	R	
D4B1-D4B3	54450-54452	10957	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D4B5	54453	10958	0		Reserved			F51	R	
D4B5-D4B6	54454-54455	10959	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Initial Season, Tier 1					
D4B7-D4B8	54456-54457	10960	0		Accumulator for Monitored Data Set 1			F64	R	
D4B9-D4BA	54458-54459	10961	0		Peak Demand for Monitored Data Set 1			F120	R	
D4BB-D4BC	54460-54461	10962	0		Coincident Demand for Monitored Data Set 1			F120	R	
D4BD-D4BF	54462-54464	10963	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D4C1	54465	10964	0		Reserved			F51	R	
D4C1-D4C2	54466-54467	10965	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D4C3-D4C4	54468-54469	10966	0		Accumulator for Monitored Data Set 2			F64	R	
D4C5-D4C6	54470-54471	10967	0		Peak Demand for Monitored Data Set 2			F120	R	
D4C7-D4C8	54472-54473	10968	0		Coincident Demand for Monitored Data Set 2			F120	R	
D4C9-D4CB	54474-54476	10969	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D4CD	54477	10970	0		Reserved			F51	R	
D4CD-D4CE	54478-54479	10971	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D4CF-D4D0	54480-54481	10972	0		Accumulator for Monitored Data Set 3			F64	R	
D4D1-D4D2	54482-54483	10973	0		Peak Demand for Monitored Data Set 3			F120	R	
D4D3-D4D4	54484-54485	10974	0		Coincident Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D4D5-D4D7	54486-54488	10975	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D4D9	54489	10976	0		Reserved			F51	R	
D4D9-D4DA	54490-54491	10977	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D4DB-D4DC	54492-54493	10978	0		Accumulator for Monitored Data Set 4			F64	R	
D4DD-D4DE	54494-54495	10979	0		Peak Demand for Monitored Data Set 4			F120	R	
D4DF-D4E0	54496-54497	10980	0		Coincident Demand for Monitored Data Set 4			F120	R	
D4E1-D4E3	54498-54500	10981	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D4E5	54501	10982	0		Reserved			F51	R	
D4E5-D4E6	54502-54503	10983	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D4E7-D4E8	54504-54505	10984	0		Accumulator for Monitored Data Set 5			F64	R	
D4E9-D4EA	54506-54507	10985	0		Peak Demand for Monitored Data Set 5			F120	R	
D4EB-D4EC	54508-54509	10986	0		Coincident Demand for Monitored Data Set 5			F120	R	
D4ED-D4EF	54510-54512	10987	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D4F1	54513	10988	0		Reserved			F51	R	
D4F1-D4F2	54514-54515	10989	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D4F3-D4F4	54516-54517	10990	0		Accumulator for Monitored Data Set 6			F64	R	
D4F5-D4F6	54518-54519	10991	0		Peak Demand for Monitored Data Set 6			F120	R	
D4F7-D4F8	54520-54521	10992	0		Coincident Demand for Monitored Data Set 6			F120	R	
D4F9-D4FB	54522-54524	10993	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D4FD	54525	10994	0		Reserved			F51	R	
D4FD-D4FE	54526-54527	10995	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D4FF-D500	54528-54529	10996	0		Accumulator for Monitored Data Set 7			F64	R	
D501-D502	54530-54531	10997	0		Peak Demand for Monitored Data Set 7			F120	R	
D503-D504	54532-54533	10998	0		Coincident Demand for Monitored Data Set 7			F120	R	
D505-D507	54534-54536	10999	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D509	54537	11000	0		Reserved			F51	R	
D509-D50A	54538-54539	11001	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D50B-D50C	54540-54541	11002	0		Accumulator for Monitored Data Set 8			F64	R	
D50D-D50E	54542-54543	11003	0		Peak Demand for Monitored Data Set 8			F120	R	
D50F-D510	54544-54545	11004	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D511-D513	54546-54548	11005	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D515	54549	11006	0		Reserved			F51	R	
D515-D516	54550-54551	11007	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D517-D518	54552-54553	11008	0		Accumulator for Monitored Data Set 9			F64	R	
D519-D51A	54554-54555	11009	0		Peak Demand for Monitored Data Set 9			F120	R	
D51B-D51C	54556-54557	11010	0		Coincident Demand for Monitored Data Set 9			F120	R	
D51D-D51F	54558-54560	11011	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D521	54561	11012	0		Reserved			F51	R	
D521-D522	54562-54563	11013	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D523-D524	54564-54565	11014	0		Accumulator for Monitored Data Set 10			F64	R	
D525-D526	54566-54567	11015	0		Peak Demand for Monitored Data Set 10			F120	R	
D527-D528	54568-54569	11016	0		Coincident Demand for Monitored Data Set 10			F120	R	
D529-D52B	54570-54572	11017	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D52D	54573	11018	0		Reserved			F51	R	
D52D-D52E	54574-54575	11019	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D52F-D530	54576-54577	11020	0		Accumulator for Monitored Data Set 11			F64	R	
D531-D532	54578-54579	11021	0		Peak Demand for Monitored Data Set 11			F120	R	
D533-D534	54580-54581	11022	0		Coincident Demand for Monitored Data Set 11			F120	R	
D535-D537	54582-54584	11023	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D539	54585	11024	0		Reserved			F51	R	
D539-D53A	54586-54587	11025	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D53B-D53C	54588-54589	11026	0		Accumulator for Monitored Data Set 12			F64	R	
D53D-D53E	54590-54591	11027	0		Peak Demand for Monitored Data Set 12			F120	R	
D53F-D540	54592-54593	11028	0		Coincident Demand for Monitored Data Set 12			F120	R	
D541-D543	54594-54596	11029	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D545	54597	11030	0		Reserved			F51	R	
D545-D546	54598-54599	11031	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D547-D548	54600-54601	11032	0		Accumulator for Monitored Data Set 13			F64	R	
D549-D54A	54602-54603	11033	0		Peak Demand for Monitored Data Set 13			F120	R	
D54B-D54C	54604-54605	11034	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D54D-D54F	54606-54608	11035	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D551	54609	11036	0		Reserved			F51	R	
D551-D552	54610-54611	11037	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D553-D554	54612-54613	11038	0		Accumulator for Monitored Data Set 14			F64	R	
D555-D556	54614-54615	11039	0		Peak Demand for Monitored Data Set 14			F120	R	
D557-D558	54616-54617	11040	0		Coincident Demand for Monitored Data Set 14			F120	R	
D559-D55B	54618-54620	11041	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D55D	54621	11042	0		Reserved			F51	R	
D55D-D55E	54622-54623	11043	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D55F-D560	54624-54625	11044	0		Accumulator for Monitored Data Set 15			F64	R	
D561-D562	54626-54627	11045	0		Peak Demand for Monitored Data Set 15			F120	R	
D563-D564	54628-54629	11046	0		Coincident Demand for Monitored Data Set 15			F120	R	
D565-D567	54630-54632	11047	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D569	54633	11048	0		Reserved			F51	R	
D569-D56A	54634-54635	11049	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D56B-D56C	54636-54637	11050	0		Accumulator for Monitored Data Set 16			F64	R	
D56D-D56E	54638-54639	11051	0		Peak Demand for Monitored Data Set 16			F120	R	
D56F-D570	54640-54641	11052	0		Coincident Demand for Monitored Data Set 16			F120	R	
D571-D573	54642-54644	11053	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D575	54645	11054	0		Reserved			F51	R	
D575-D576	54646-54647	11055	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Initial Season, Tier 2					
D577-D578	54648-54649	11056	0		Accumulator for Monitored Data Set 1			F64	R	
D579-D57A	54650-54651	11057	0		Peak Demand for Monitored Data Set 1			F120	R	
D57B-D57C	54652-54653	11058	0		Coincident Demand for Monitored Data Set 1			F120	R	
D57D-D57F	54654-54656	11059	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D581	54657	11060	0		Reserved			F51	R	
D581-D582	54658-54659	11061	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D583-D584	54660-54661	11062	0		Accumulator for Monitored Data Set 2			F64	R	
D585-D586	54662-54663	11063	0		Peak Demand for Monitored Data Set 2			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D587-D588	54664-54665	11064	0		Coincident Demand for Monitored Data Set 2			F120	R	
D589-D58B	54666-54668	11065	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D58D	54669	11066	0		Reserved			F51	R	
D58D-D58E	54670-54671	11067	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D58F-D590	54672-54673	11068	0		Accumulator for Monitored Data Set 3			F64	R	
D591-D592	54674-54675	11069	0		Peak Demand for Monitored Data Set 3			F120	R	
D593-D594	54676-54677	11070	0		Coincident Demand for Monitored Data Set 3			F120	R	
D595-D597	54678-54680	11071	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D599	54681	11072	0		Reserved			F51	R	
D599-D59A	54682-54683	11073	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D59B-D59C	54684-54685	11074	0		Accumulator for Monitored Data Set 4			F64	R	
D59D-D59E	54686-54687	11075	0		Peak Demand for Monitored Data Set 4			F120	R	
D59F-D5A0	54688-54689	11076	0		Coincident Demand for Monitored Data Set 4			F120	R	
D5A1-D5A3	54690-54692	11077	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D5A5	54693	11078	0		Reserved			F51	R	
D5A5-D5A6	54694-54695	11079	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D5A7-D5A8	54696-54697	11080	0		Accumulator for Monitored Data Set 5			F64	R	
D5A9-D5AA	54698-54699	11081	0		Peak Demand for Monitored Data Set 5			F120	R	
D5AB-D5AC	54700-54701	11082	0		Coincident Demand for Monitored Data Set 5			F120	R	
D5AD-D5AF	54702-54704	11083	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D5B1	54705	11084	0		Reserved			F51	R	
D5B1-D5B2	54706-54707	11085	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D5B3-D5B4	54708-54709	11086	0		Accumulator for Monitored Data Set 6			F64	R	
D5B5-D5B6	54710-54711	11087	0		Peak Demand for Monitored Data Set 6			F120	R	
D5B7-D5B8	54712-54713	11088	0		Coincident Demand for Monitored Data Set 6			F120	R	
D5B9-D5BB	54714-54716	11089	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D5BD	54717	11090	0		Reserved			F51	R	
D5BD-D5BE	54718-54719	11091	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D5BF-D5C0	54720-54721	11092	0		Accumulator for Monitored Data Set 7			F64	R	
D5C1-D5C2	54722-54723	11093	0		Peak Demand for Monitored Data Set 7			F120	R	
D5C3-D5C4	54724-54725	11094	0		Coincident Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D5C5-D5C7	54726-54728	11095	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D5C9	54729	11096	0		Reserved			F51	R	
D5C9-D5CA	54730-54731	11097	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D5CB-D5CC	54732-54733	11098	0		Accumulator for Monitored Data Set 8			F64	R	
D5CD-D5CE	54734-54735	11099	0		Peak Demand for Monitored Data Set 8			F120	R	
D5CF-D5D0	54736-54737	11100	0		Coincident Demand for Monitored Data Set 8			F120	R	
D5D1-D5D3	54738-54740	11101	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D5D5	54741	11102	0		Reserved			F51	R	
D5D5-D5D6	54742-54743	11103	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D5D7-D5D8	54744-54745	11104	0		Accumulator for Monitored Data Set 9			F64	R	
D5D9-D5DA	54746-54747	11105	0		Peak Demand for Monitored Data Set 9			F120	R	
D5DB-D5DC	54748-54749	11106	0		Coincident Demand for Monitored Data Set 9			F120	R	
D5DD-D5DF	54750-54752	11107	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D5E1	54753	11108	0		Reserved			F51	R	
D5E1-D5E2	54754-54755	11109	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D5E3-D5E4	54756-54757	11110	0		Accumulator for Monitored Data Set 10			F64	R	
D5E5-D5E6	54758-54759	11111	0		Peak Demand for Monitored Data Set 10			F120	R	
D5E7-D5E8	54760-54761	11112	0		Coincident Demand for Monitored Data Set 10			F120	R	
D5E9-D5EB	54762-54764	11113	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D5ED	54765	11114	0		Reserved			F51	R	
D5ED-D5EE	54766-54767	11115	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D5EF-D5F0	54768-54769	11116	0		Accumulator for Monitored Data Set 11			F64	R	
D5F1-D5F2	54770-54771	11117	0		Peak Demand for Monitored Data Set 11			F120	R	
D5F3-D5F4	54772-54773	11118	0		Coincident Demand for Monitored Data Set 11			F120	R	
D5F5-D5F7	54774-54776	11119	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D5F9	54777	11120	0		Reserved			F51	R	
D5F9-D5FA	54778-54779	11121	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D5FB-D5FC	54780-54781	11122	0		Accumulator for Monitored Data Set 12			F64	R	
D5FD-D5FE	54782-54783	11123	0		Peak Demand for Monitored Data Set 12			F120	R	
D5FF-D600	54784-54785	11124	0		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D601-D603	54786-54788	11125	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D605	54789	11126	0		Reserved			F51	R	
D605-D606	54790-54791	11127	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D607-D608	54792-54793	11128	0		Accumulator for Monitored Data Set 13			F64	R	
D609-D60A	54794-54795	11129	0		Peak Demand for Monitored Data Set 13			F120	R	
D60B-D60C	54796-54797	11130	0		Coincident Demand for Monitored Data Set 13			F120	R	
D60D-D60F	54798-54800	11131	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D611	54801	11132	0		Reserved			F51	R	
D611-D612	54802-54803	11133	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D613-D614	54804-54805	11134	0		Accumulator for Monitored Data Set 14			F64	R	
D615-D616	54806-54807	11135	0		Peak Demand for Monitored Data Set 14			F120	R	
D617-D618	54808-54809	11136	0		Coincident Demand for Monitored Data Set 14			F120	R	
D619-D61B	54810-54812	11137	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D61D	54813	11138	0		Reserved			F51	R	
D61D-D61E	54814-54815	11139	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D61F-D620	54816-54817	11140	0		Accumulator for Monitored Data Set 15			F64	R	
D621-D622	54818-54819	11141	0		Peak Demand for Monitored Data Set 15			F120	R	
D623-D624	54820-54821	11142	0		Coincident Demand for Monitored Data Set 15			F120	R	
D625-D627	54822-54824	11143	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D629	54825	11144	0		Reserved			F51	R	
D629-D62A	54826-54827	11145	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D62B-D62C	54828-54829	11146	0		Accumulator for Monitored Data Set 16			F64	R	
D62D-D62E	54830-54831	11147	0		Peak Demand for Monitored Data Set 16			F120	R	
D62F-D630	54832-54833	11148	0		Coincident Demand for Monitored Data Set 16			F120	R	
D631-D633	54834-54836	11149	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D635	54837	11150	0		Reserved			F51	R	
D635-D636	54838-54839	11151	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Initial Season, Tier 3					
D637-D638	54840-54841	11152	0		Accumulator for Monitored Data Set 1			F64	R	
D639-D63A	54842-54843	11153	0		Peak Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D63B-D63C	54844-54845	11154	0		Coincident Demand for Monitored Data Set 1			F120	R	
D63D-D63F	54846-54848	11155	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D641	54849	11156	0		Reserved			F51	R	
D641-D642	54850-54851	11157	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D643-D644	54852-54853	11158	0		Accumulator for Monitored Data Set 2			F64	R	
D645-D646	54854-54855	11159	0		Peak Demand for Monitored Data Set 2			F120	R	
D647-D648	54856-54857	11160	0		Coincident Demand for Monitored Data Set 2			F120	R	
D649-D64B	54858-54860	11161	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D64D	54861	11162	0		Reserved			F51	R	
D64D-D64E	54862-54863	11163	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D64F-D650	54864-54865	11164	0		Accumulator for Monitored Data Set 3			F64	R	
D651-D652	54866-54867	11165	0		Peak Demand for Monitored Data Set 3			F120	R	
D653-D654	54868-54869	11166	0		Coincident Demand for Monitored Data Set 3			F120	R	
D655-D657	54870-54872	11167	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D659	54873	11168	0		Reserved			F51	R	
D659-D65A	54874-54875	11169	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D65B-D65C	54876-54877	11170	0		Accumulator for Monitored Data Set 4			F64	R	
D65D-D65E	54878-54879	11171	0		Peak Demand for Monitored Data Set 4			F120	R	
D65F-D660	54880-54881	11172	0		Coincident Demand for Monitored Data Set 4			F120	R	
D661-D663	54882-54884	11173	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D665	54885	11174	0		Reserved			F51	R	
D665-D666	54886-54887	11175	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D667-D668	54888-54889	11176	0		Accumulator for Monitored Data Set 5			F64	R	
D669-D66A	54890-54891	11177	0		Peak Demand for Monitored Data Set 5			F120	R	
D66B-D66C	54892-54893	11178	0		Coincident Demand for Monitored Data Set 5			F120	R	
D66D-D66F	54894-54896	11179	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D671	54897	11180	0		Reserved			F51	R	
D671-D672	54898-54899	11181	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D673-D674	54900-54901	11182	0		Accumulator for Monitored Data Set 6			F64	R	
D675-D676	54902-54903	11183	0		Peak Demand for Monitored Data Set 6			F120	R	
D677-D678	54904-54905	11184	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D679-D67B	54906-54908	11185	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D67D	54909	11186	0		Reserved			F51	R	
D67D-D67E	54910-54911	11187	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D67F-D680	54912-54913	11188	0		Accumulator for Monitored Data Set 7			F64	R	
D681-D682	54914-54915	11189	0		Peak Demand for Monitored Data Set 7			F120	R	
D683-D684	54916-54917	11190	0		Coincident Demand for Monitored Data Set 7			F120	R	
D685-D687	54918-54920	11191	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D689	54921	11192	0		Reserved			F51	R	
D689-D68A	54922-54923	11193	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D68B-D68C	54924-54925	11194	0		Accumulator for Monitored Data Set 8			F64	R	
D68D-D68E	54926-54927	11195	0		Peak Demand for Monitored Data Set 8			F120	R	
D68F-D690	54928-54929	11196	0		Coincident Demand for Monitored Data Set 8			F120	R	
D691-D693	54930-54932	11197	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D695	54933	11198	0		Reserved			F51	R	
D695-D696	54934-54935	11199	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D697-D698	54936-54937	11200	0		Accumulator for Monitored Data Set 9			F64	R	
D699-D69A	54938-54939	11201	0		Peak Demand for Monitored Data Set 9			F120	R	
D69B-D69C	54940-54941	11202	0		Coincident Demand for Monitored Data Set 9			F120	R	
D69D-D69F	54942-54944	11203	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D6A1	54945	11204	0		Reserved			F51	R	
D6A1-D6A2	54946-54947	11205	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D6A3-D6A4	54948-54949	11206	0		Accumulator for Monitored Data Set 10			F64	R	
D6A5-D6A6	54950-54951	11207	0		Peak Demand for Monitored Data Set 10			F120	R	
D6A7-D6A8	54952-54953	11208	0		Coincident Demand for Monitored Data Set 10			F120	R	
D6A9-D6AB	54954-54956	11209	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D6AD	54957	11210	0		Reserved			F51	R	
D6AD-D6AE	54958-54959	11211	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D6AF-D6B0	54960-54961	11212	0		Accumulator for Monitored Data Set 11			F64	R	
D6B1-D6B2	54962-54963	11213	0		Peak Demand for Monitored Data Set 11			F120	R	
D6B3-D6B4	54964-54965	11214	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D6B5-D6B7	54966-54968	11215	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D6B9	54969	11216	0		Reserved			F51	R	
D6B9-D6BA	54970-54971	11217	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D6BB-D6BC	54972-54973	11218	0		Accumulator for Monitored Data Set 12			F64	R	
D6BD-D6BE	54974-54975	11219	0		Peak Demand for Monitored Data Set 12			F120	R	
D6BF-D6C0	54976-54977	11220	0		Coincident Demand for Monitored Data Set 12			F120	R	
D6C1-D6C3	54978-54980	11221	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D6C5	54981	11222	0		Reserved			F51	R	
D6C5-D6C6	54982-54983	11223	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D6C7-D6C8	54984-54985	11224	0		Accumulator for Monitored Data Set 13			F64	R	
D6C9-D6CA	54986-54987	11225	0		Peak Demand for Monitored Data Set 13			F120	R	
D6CB-D6CC	54988-54989	11226	0		Coincident Demand for Monitored Data Set 13			F120	R	
D6CD-D6CF	54990-54992	11227	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D6D1	54993	11228	0		Reserved			F51	R	
D6D1-D6D2	54994-54995	11229	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D6D3-D6D4	54996-54997	11230	0		Accumulator for Monitored Data Set 14			F64	R	
D6D5-D6D6	54998-54999	11231	0		Peak Demand for Monitored Data Set 14			F120	R	
D6D7-D6D8	55000-55001	11232	0		Coincident Demand for Monitored Data Set 14			F120	R	
D6D9-D6DB	55002-55004	11233	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D6DD	55005	11234	0		Reserved			F51	R	
D6DD-D6DE	55006-55007	11235	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D6DF-D6E0	55008-55009	11236	0		Accumulator for Monitored Data Set 15			F64	R	
D6E1-D6E2	55010-55011	11237	0		Peak Demand for Monitored Data Set 15			F120	R	
D6E3-D6E4	55012-55013	11238	0		Coincident Demand for Monitored Data Set 15			F120	R	
D6E5-D6E7	55014-55016	11239	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D6E9	55017	11240	0		Reserved			F51	R	
D6E9-D6EA	55018-55019	11241	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D6EB-D6EC	55020-55021	11242	0		Accumulator for Monitored Data Set 16			F64	R	
D6ED-D6EE	55022-55023	11243	0		Peak Demand for Monitored Data Set 16			F120	R	
D6EF-D6F0	55024-55025	11244	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D6F1-D6F3	55026-55028	11245	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D6F5	55029	11246	0		Reserved			F51	R	
D6F5-D6F6	55030-55031	11247	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Initial Season, Tier 4					
D6F7-D6F8	55032-55033	11248	0		Accumulator for Monitored Data Set 1			F64	R	
D6F9-D6FA	55034-55035	11249	0		Peak Demand for Monitored Data Set 1			F120	R	
D6FB-D6FC	55036-55037	11250	0		Coincident Demand for Monitored Data Set 1			F120	R	
D6FD-D6FF	55038-55040	11251	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D701	55041	11252	0		Reserved			F51	R	
D701-D702	55042-55043	11253	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D703-D704	55044-55045	11254	0		Accumulator for Monitored Data Set 2			F64	R	
D705-D706	55046-55047	11255	0		Peak Demand for Monitored Data Set 2			F120	R	
D707-D708	55048-55049	11256	0		Coincident Demand for Monitored Data Set 2			F120	R	
D709-D70B	55050-55052	11257	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D70D	55053	11258	0		Reserved			F51	R	
D70D-D70E	55054-55055	11259	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D70F-D710	55056-55057	11260	0		Accumulator for Monitored Data Set 3			F64	R	
D711-D712	55058-55059	11261	0		Peak Demand for Monitored Data Set 3			F120	R	
D713-D714	55060-55061	11262	0		Coincident Demand for Monitored Data Set 3			F120	R	
D715-D717	55062-55064	11263	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D719	55065	11264	0		Reserved			F51	R	
D719-D71A	55066-55067	11265	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D71B-D71C	55068-55069	11266	0		Accumulator for Monitored Data Set 4			F64	R	
D71D-D71E	55070-55071	11267	0		Peak Demand for Monitored Data Set 4			F120	R	
D71F-D720	55072-55073	11268	0		Coincident Demand for Monitored Data Set 4			F120	R	
D721-D723	55074-55076	11269	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D725	55077	11270	0		Reserved			F51	R	
D725-D726	55078-55079	11271	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D727-D728	55080-55081	11272	0		Accumulator for Monitored Data Set 5			F64	R	
D729-D72A	55082-55083	11273	0		Peak Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D72B-D72C	55084-55085	11274	0		Coincident Demand for Monitored Data Set 5			F120	R	
D72D-D72F	55086-55088	11275	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D731	55089	11276	0		Reserved			F51	R	
D731-D732	55090-55091	11277	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D733-D734	55092-55093	11278	0		Accumulator for Monitored Data Set 6			F64	R	
D735-D736	55094-55095	11279	0		Peak Demand for Monitored Data Set 6			F120	R	
D737-D738	55096-55097	11280	0		Coincident Demand for Monitored Data Set 6			F120	R	
D739-D73B	55098-55100	11281	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D73D	55101	11282	0		Reserved			F51	R	
D73D-D73E	55102-55103	11283	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D73F-D740	55104-55105	11284	0		Accumulator for Monitored Data Set 7			F64	R	
D741-D742	55106-55107	11285	0		Peak Demand for Monitored Data Set 7			F120	R	
D743-D744	55108-55109	11286	0		Coincident Demand for Monitored Data Set 7			F120	R	
D745-D747	55110-55112	11287	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D749	55113	11288	0		Reserved			F51	R	
D749-D74A	55114-55115	11289	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D74B-D74C	55116-55117	11290	0		Accumulator for Monitored Data Set 8			F64	R	
D74D-D74E	55118-55119	11291	0		Peak Demand for Monitored Data Set 8			F120	R	
D74F-D750	55120-55121	11292	0		Coincident Demand for Monitored Data Set 8			F120	R	
D751-D753	55122-55124	11293	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D755	55125	11294	0		Reserved			F51	R	
D755-D756	55126-55127	11295	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D757-D758	55128-55129	11296	0		Accumulator for Monitored Data Set 9			F64	R	
D759-D75A	55130-55131	11297	0		Peak Demand for Monitored Data Set 9			F120	R	
D75B-D75C	55132-55133	11298	0		Coincident Demand for Monitored Data Set 9			F120	R	
D75D-D75F	55134-55136	11299	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D761	55137	11300	0		Reserved			F51	R	
D761-D762	55138-55139	11301	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D763-D764	55140-55141	11302	0		Accumulator for Monitored Data Set 10			F64	R	
D765-D766	55142-55143	11303	0		Peak Demand for Monitored Data Set 10			F120	R	
D767-D768	55144-55145	11304	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D769-D76B	55146-55148	11305	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D76D	55149	11306	0		Reserved			F51	R	
D76D-D76E	55150-55151	11307	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D76F-D770	55152-55153	11308	0		Accumulator for Monitored Data Set 11			F64	R	
D771-D772	55154-55155	11309	0		Peak Demand for Monitored Data Set 11			F120	R	
D773-D774	55156-55157	11310	0		Coincident Demand for Monitored Data Set 11			F120	R	
D775-D777	55158-55160	11311	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D779	55161	11312	0		Reserved			F51	R	
D779-D77A	55162-55163	11313	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D77B-D77C	55164-55165	11314	0		Accumulator for Monitored Data Set 12			F64	R	
D77D-D77E	55166-55167	11315	0		Peak Demand for Monitored Data Set 12			F120	R	
D77F-D780	55168-55169	11316	0		Coincident Demand for Monitored Data Set 12			F120	R	
D781-D783	55170-55172	11317	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D785	55173	11318	0		Reserved			F51	R	
D785-D786	55174-55175	11319	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D787-D788	55176-55177	11320	0		Accumulator for Monitored Data Set 13			F64	R	
D789-D78A	55178-55179	11321	0		Peak Demand for Monitored Data Set 13			F120	R	
D78B-D78C	55180-55181	11322	0		Coincident Demand for Monitored Data Set 13			F120	R	
D78D-D78F	55182-55184	11323	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D791	55185	11324	0		Reserved			F51	R	
D791-D792	55186-55187	11325	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D793-D794	55188-55189	11326	0		Accumulator for Monitored Data Set 14			F64	R	
D795-D796	55190-55191	11327	0		Peak Demand for Monitored Data Set 14			F120	R	
D797-D798	55192-55193	11328	0		Coincident Demand for Monitored Data Set 14			F120	R	
D799-D79B	55194-55196	11329	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D79D	55197	11330	0		Reserved			F51	R	
D79D-D79E	55198-55199	11331	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D79F-D7A0	55200-55201	11332	0		Accumulator for Monitored Data Set 15			F64	R	
D7A1-D7A2	55202-55203	11333	0		Peak Demand for Monitored Data Set 15			F120	R	
D7A3-D7A4	55204-55205	11334	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D7A5-D7A7	55206-55208	11335	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D7A9	55209	11336	0		Reserved			F51	R	
D7A9-D7AA	55210-55211	11337	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D7AB-D7AC	55212-55213	11338	0		Accumulator for Monitored Data Set 16			F64	R	
D7AD-D7AE	55214-55215	11339	0		Peak Demand for Monitored Data Set 16			F120	R	
D7AF-D7B0	55216-55217	11340	0		Coincident Demand for Monitored Data Set 16			F120	R	
D7B1-D7B3	55218-55220	11341	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D7B5	55221	11342	0		Reserved			F51	R	
D7B5-D7B6	55222-55223	11343	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Final Season, Tier 0					
D7B7-D7B8	55224-55225	11344	0		Accumulator for Monitored Data Set 1			F64	R	
D7B9-D7BA	55226-55227	11345	0		Peak Demand for Monitored Data Set 1			F120	R	
D7BB-D7BC	55228-55229	11346	0		Coincident Demand for Monitored Data Set 1			F120	R	
D7BD-D7BF	55230-55232	11347	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D7C1	55233	11348	0		Reserved			F51	R	
D7C1-D7C2	55234-55235	11349	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D7C3-D7C4	55236-55237	11350	0		Accumulator for Monitored Data Set 2			F64	R	
D7C5-D7C6	55238-55239	11351	0		Peak Demand for Monitored Data Set 2			F120	R	
D7C7-D7C8	55240-55241	11352	0		Coincident Demand for Monitored Data Set 2			F120	R	
D7C9-D7CB	55242-55244	11353	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D7CD	55245	11354	0		Reserved			F51	R	
D7CD-D7CE	55246-55247	11355	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D7CF-D7D0	55248-55249	11356	0		Accumulator for Monitored Data Set 3			F64	R	
D7D1-D7D2	55250-55251	11357	0		Peak Demand for Monitored Data Set 3			F120	R	
D7D3-D7D4	55252-55253	11358	0		Coincident Demand for Monitored Data Set 3			F120	R	
D7D5-D7D7	55254-55256	11359	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D7D9	55257	11360	0		Reserved			F51	R	
D7D9-D7DA	55258-55259	11361	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D7DB-D7DC	55260-55261	11362	0		Accumulator for Monitored Data Set 4			F64	R	
D7DD-D7DE	55262-55263	11363	0		Peak Demand for Monitored Data Set 4			F120	R	
D7DF-D7E0	55264-55265	11364	0		Coincident Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D7E1-D7E3	55266-55268	11365	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D7E5	55269	11366	0		Reserved			F51	R	
D7E5-D7E6	55270-55271	11367	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D7E7-D7E8	55272-55273	11368	0		Accumulator for Monitored Data Set 5			F64	R	
D7E9-D7EA	55274-55275	11369	0		Peak Demand for Monitored Data Set 5			F120	R	
D7EB-D7EC	55276-55277	11370	0		Coincident Demand for Monitored Data Set 5			F120	R	
D7ED-D7EF	55278-55280	11371	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D7F1	55281	11372	0		Reserved			F51	R	
D7F1-D7F2	55282-55283	11373	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D7F3-D7F4	55284-55285	11374	0		Accumulator for Monitored Data Set 6			F64	R	
D7F5-D7F6	55286-55287	11375	0		Peak Demand for Monitored Data Set 6			F120	R	
D7F7-D7F8	55288-55289	11376	0		Coincident Demand for Monitored Data Set 6			F120	R	
D7F9-D7FB	55290-55292	11377	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D7FD	55293	11378	0		Reserved			F51	R	
D7FD-D7FE	55294-55295	11379	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D7FF-D800	55296-55297	11380	0		Accumulator for Monitored Data Set 7			F64	R	
D801-D802	55298-55299	11381	0		Peak Demand for Monitored Data Set 7			F120	R	
D803-D804	55300-55301	11382	0		Coincident Demand for Monitored Data Set 7			F120	R	
D805-D807	55302-55304	11383	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D809	55305	11384	0		Reserved			F51	R	
D809-D80A	55306-55307	11385	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D80B-D80C	55308-55309	11386	0		Accumulator for Monitored Data Set 8			F64	R	
D80D-D80E	55310-55311	11387	0		Peak Demand for Monitored Data Set 8			F120	R	
D80F-D810	55312-55313	11388	0		Coincident Demand for Monitored Data Set 8			F120	R	
D811-D813	55314-55316	11389	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D815	55317	11390	0		Reserved			F51	R	
D815-D816	55318-55319	11391	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D817-D818	55320-55321	11392	0		Accumulator for Monitored Data Set 9			F64	R	
D819-D81A	55322-55323	11393	0		Peak Demand for Monitored Data Set 9			F120	R	
D81B-D81C	55324-55325	11394	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D81D-D81F	55326-55328	11395	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D821	55329	11396	0		Reserved			F51	R	
D821-D822	55330-55331	11397	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D823-D824	55332-55333	11398	0		Accumulator for Monitored Data Set 10			F64	R	
D825-D826	55334-55335	11399	0		Peak Demand for Monitored Data Set 10			F120	R	
D827-D828	55336-55337	11400	0		Coincident Demand for Monitored Data Set 10			F120	R	
D829-D82B	55338-55340	11401	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D82D	55341	11402	0		Reserved			F51	R	
D82D-D82E	55342-55343	11403	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D82F-D830	55344-55345	11404	0		Accumulator for Monitored Data Set 11			F64	R	
D831-D832	55346-55347	11405	0		Peak Demand for Monitored Data Set 11			F120	R	
D833-D834	55348-55349	11406	0		Coincident Demand for Monitored Data Set 11			F120	R	
D835-D837	55350-55352	11407	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D839	55353	11408	0		Reserved			F51	R	
D839-D83A	55354-55355	11409	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D83B-D83C	55356-55357	11410	0		Accumulator for Monitored Data Set 12			F64	R	
D83D-D83E	55358-55359	11411	0		Peak Demand for Monitored Data Set 12			F120	R	
D83F-D840	55360-55361	11412	0		Coincident Demand for Monitored Data Set 12			F120	R	
D841-D843	55362-55364	11413	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D845	55365	11414	0		Reserved			F51	R	
D845-D846	55366-55367	11415	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D847-D848	55368-55369	11416	0		Accumulator for Monitored Data Set 13			F64	R	
D849-D84A	55370-55371	11417	0		Peak Demand for Monitored Data Set 13			F120	R	
D84B-D84C	55372-55373	11418	0		Coincident Demand for Monitored Data Set 13			F120	R	
D84D-D84F	55374-55376	11419	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D851	55377	11420	0		Reserved			F51	R	
D851-D852	55378-55379	11421	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D853-D854	55380-55381	11422	0		Accumulator for Monitored Data Set 14			F64	R	
D855-D856	55382-55383	11423	0		Peak Demand for Monitored Data Set 14			F120	R	
D857-D858	55384-55385	11424	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D859-D85B	55386-55388	11425	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D85D	55389	11426	0		Reserved			F51	R	
D85D-D85E	55390-55391	11427	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D85F-D860	55392-55393	11428	0		Accumulator for Monitored Data Set 15			F64	R	
D861-D862	55394-55395	11429	0		Peak Demand for Monitored Data Set 15			F120	R	
D863-D864	55396-55397	11430	0		Coincident Demand for Monitored Data Set 15			F120	R	
D865-D867	55398-55400	11431	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D869	55401	11432	0		Reserved			F51	R	
D869-D86A	55402-55403	11433	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D86B-D86C	55404-55405	11434	0		Accumulator for Monitored Data Set 16			F64	R	
D86D-D86E	55406-55407	11435	0		Peak Demand for Monitored Data Set 16			F120	R	
D86F-D870	55408-55409	11436	0		Coincident Demand for Monitored Data Set 16			F120	R	
D871-D873	55410-55412	11437	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D875	55413	11438	0		Reserved			F51	R	
D875-D876	55414-55415	11439	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Final Season, Tier 1					
D877-D878	55416-55417	11440	0		Accumulator for Monitored Data Set 1			F64	R	
D879-D87A	55418-55419	11441	0		Peak Demand for Monitored Data Set 1			F120	R	
D87B-D87C	55420-55421	11442	0		Coincident Demand for Monitored Data Set 1			F120	R	
D87D-D87F	55422-55424	11443	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D881	55425	11444	0		Reserved			F51	R	
D881-D882	55426-55427	11445	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D883-D884	55428-55429	11446	0		Accumulator for Monitored Data Set 2			F64	R	
D885-D886	55430-55431	11447	0		Peak Demand for Monitored Data Set 2			F120	R	
D887-D888	55432-55433	11448	0		Coincident Demand for Monitored Data Set 2			F120	R	
D889-D88B	55434-55436	11449	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D88D	55437	11450	0		Reserved			F51	R	
D88D-D88E	55438-55439	11451	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D88F-D890	55440-55441	11452	0		Accumulator for Monitored Data Set 3			F64	R	
D891-D892	55442-55443	11453	0		Peak Demand for Monitored Data Set 3			F120	R	
D893-D894	55444-55445	11454	0		Coincident Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D895-D897	55446-55448	11455	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D899	55449	11456	0		Reserved			F51	R	
D899-D89A	55450-55451	11457	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D89B-D89C	55452-55453	11458	0		Accumulator for Monitored Data Set 4			F64	R	
D89D-D89E	55454-55455	11459	0		Peak Demand for Monitored Data Set 4			F120	R	
D89F-D8A0	55456-55457	11460	0		Coincident Demand for Monitored Data Set 4			F120	R	
D8A1-D8A3	55458-55460	11461	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D8A5	55461	11462	0		Reserved			F51	R	
D8A5-D8A6	55462-55463	11463	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D8A7-D8A8	55464-55465	11464	0		Accumulator for Monitored Data Set 5			F64	R	
D8A9-D8AA	55466-55467	11465	0		Peak Demand for Monitored Data Set 5			F120	R	
D8AB-D8AC	55468-55469	11466	0		Coincident Demand for Monitored Data Set 5			F120	R	
D8AD-D8AF	55470-55472	11467	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D8B1	55473	11468	0		Reserved			F51	R	
D8B1-D8B2	55474-55475	11469	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D8B3-D8B4	55476-55477	11470	0		Accumulator for Monitored Data Set 6			F64	R	
D8B5-D8B6	55478-55479	11471	0		Peak Demand for Monitored Data Set 6			F120	R	
D8B7-D8B8	55480-55481	11472	0		Coincident Demand for Monitored Data Set 6			F120	R	
D8B9-D8BB	55482-55484	11473	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D8BD	55485	11474	0		Reserved			F51	R	
D8BD-D8BE	55486-55487	11475	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D8BF-D8C0	55488-55489	11476	0		Accumulator for Monitored Data Set 7			F64	R	
D8C1-D8C2	55490-55491	11477	0		Peak Demand for Monitored Data Set 7			F120	R	
D8C3-D8C4	55492-55493	11478	0		Coincident Demand for Monitored Data Set 7			F120	R	
D8C5-D8C7	55494-55496	11479	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D8C9	55497	11480	0		Reserved			F51	R	
D8C9-D8CA	55498-55499	11481	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D8CB-D8CC	55500-55501	11482	0		Accumulator for Monitored Data Set 8			F64	R	
D8CD-D8CE	55502-55503	11483	0		Peak Demand for Monitored Data Set 8			F120	R	
D8CF-D8D0	55504-55505	11484	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D8D1-D8D3	55506-55508	11485	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D8D5	55509	11486	0		Reserved			F51	R	
D8D5-D8D6	55510-55511	11487	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D8D7-D8D8	55512-55513	11488	0		Accumulator for Monitored Data Set 9			F64	R	
D8D9-D8DA	55514-55515	11489	0		Peak Demand for Monitored Data Set 9			F120	R	
D8DB-D8DC	55516-55517	11490	0		Coincident Demand for Monitored Data Set 9			F120	R	
D8DD-D8DF	55518-55520	11491	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D8E1	55521	11492	0		Reserved			F51	R	
D8E1-D8E2	55522-55523	11493	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D8E3-D8E4	55524-55525	11494	0		Accumulator for Monitored Data Set 10			F64	R	
D8E5-D8E6	55526-55527	11495	0		Peak Demand for Monitored Data Set 10			F120	R	
D8E7-D8E8	55528-55529	11496	0		Coincident Demand for Monitored Data Set 10			F120	R	
D8E9-D8EB	55530-55532	11497	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D8ED	55533	11498	0		Reserved			F51	R	
D8ED-D8EE	55534-55535	11499	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D8EF-D8F0	55536-55537	11500	0		Accumulator for Monitored Data Set 11			F64	R	
D8F1-D8F2	55538-55539	11501	0		Peak Demand for Monitored Data Set 11			F120	R	
D8F3-D8F4	55540-55541	11502	0		Coincident Demand for Monitored Data Set 11			F120	R	
D8F5-D8F7	55542-55544	11503	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D8F9	55545	11504	0		Reserved			F51	R	
D8F9-D8FA	55546-55547	11505	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D8FB-D8FC	55548-55549	11506	0		Accumulator for Monitored Data Set 12			F64	R	
D8FD-D8FE	55550-55551	11507	0		Peak Demand for Monitored Data Set 12			F120	R	
D8FF-D900	55552-55553	11508	0		Coincident Demand for Monitored Data Set 12			F120	R	
D901-D903	55554-55556	11509	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D905	55557	11510	0		Reserved			F51	R	
D905-D906	55558-55559	11511	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D907-D908	55560-55561	11512	0		Accumulator for Monitored Data Set 13			F64	R	
D909-D90A	55562-55563	11513	0		Peak Demand for Monitored Data Set 13			F120	R	
D90B-D90C	55564-55565	11514	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D90D-D90F	55566-55568	11515	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D911	55569	11516	0		Reserved			F51	R	
D911-D912	55570-55571	11517	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D913-D914	55572-55573	11518	0		Accumulator for Monitored Data Set 14			F64	R	
D915-D916	55574-55575	11519	0		Peak Demand for Monitored Data Set 14			F120	R	
D917-D918	55576-55577	11520	0		Coincident Demand for Monitored Data Set 14			F120	R	
D919-D91B	55578-55580	11521	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D91D	55581	11522	0		Reserved			F51	R	
D91D-D91E	55582-55583	11523	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D91F-D920	55584-55585	11524	0		Accumulator for Monitored Data Set 15			F64	R	
D921-D922	55586-55587	11525	0		Peak Demand for Monitored Data Set 15			F120	R	
D923-D924	55588-55589	11526	0		Coincident Demand for Monitored Data Set 15			F120	R	
D925-D927	55590-55592	11527	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D929	55593	11528	0		Reserved			F51	R	
D929-D92A	55594-55595	11529	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D92B-D92C	55596-55597	11530	0		Accumulator for Monitored Data Set 16			F64	R	
D92D-D92E	55598-55599	11531	0		Peak Demand for Monitored Data Set 16			F120	R	
D92F-D930	55600-55601	11532	0		Coincident Demand for Monitored Data Set 16			F120	R	
D931-D933	55602-55604	11533	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D935	55605	11534	0		Reserved			F51	R	
D935-D936	55606-55607	11535	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Final Season, Tier 2					
D937-D938	55608-55609	11536	0		Accumulator for Monitored Data Set 1			F64	R	
D939-D93A	55610-55611	11537	0		Peak Demand for Monitored Data Set 1			F120	R	
D93B-D93C	55612-55613	11538	0		Coincident Demand for Monitored Data Set 1			F120	R	
D93D-D93F	55614-55616	11539	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
D941	55617	11540	0		Reserved			F51	R	
D941-D942	55618-55619	11541	0		Cumulative Demand for Monitored Data Set 1			F52	R	
D943-D944	55620-55621	11542	0		Accumulator for Monitored Data Set 2			F64	R	
D945-D946	55622-55623	11543	0		Peak Demand for Monitored Data Set 2			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D947-D948	55624-55625	11544	0		Coincident Demand for Monitored Data Set 2			F120	R	
D949-D94B	55626-55628	11545	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
D94D	55629	11546	0		Reserved			F51	R	
D94D-D94E	55630-55631	11547	0		Cumulative Demand for Monitored Data Set 2			F52	R	
D94F-D950	55632-55633	11548	0		Accumulator for Monitored Data Set 3			F64	R	
D951-D952	55634-55635	11549	0		Peak Demand for Monitored Data Set 3			F120	R	
D953-D954	55636-55637	11550	0		Coincident Demand for Monitored Data Set 3			F120	R	
D955-D957	55638-55640	11551	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
D959	55641	11552	0		Reserved			F51	R	
D959-D95A	55642-55643	11553	0		Cumulative Demand for Monitored Data Set 3			F52	R	
D95B-D95C	55644-55645	11554	0		Accumulator for Monitored Data Set 4			F64	R	
D95D-D95E	55646-55647	11555	0		Peak Demand for Monitored Data Set 4			F120	R	
D95F-D960	55648-55649	11556	0		Coincident Demand for Monitored Data Set 4			F120	R	
D961-D963	55650-55652	11557	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
D965	55653	11558	0		Reserved			F51	R	
D965-D966	55654-55655	11559	0		Cumulative Demand for Monitored Data Set 4			F52	R	
D967-D968	55656-55657	11560	0		Accumulator for Monitored Data Set 5			F64	R	
D969-D96A	55658-55659	11561	0		Peak Demand for Monitored Data Set 5			F120	R	
D96B-D96C	55660-55661	11562	0		Coincident Demand for Monitored Data Set 5			F120	R	
D96D-D96F	55662-55664	11563	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
D971	55665	11564	0		Reserved			F51	R	
D971-D972	55666-55667	11565	0		Cumulative Demand for Monitored Data Set 5			F52	R	
D973-D974	55668-55669	11566	0		Accumulator for Monitored Data Set 6			F64	R	
D975-D976	55670-55671	11567	0		Peak Demand for Monitored Data Set 6			F120	R	
D977-D978	55672-55673	11568	0		Coincident Demand for Monitored Data Set 6			F120	R	
D979-D97B	55674-55676	11569	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
D97D	55677	11570	0		Reserved			F51	R	
D97D-D97E	55678-55679	11571	0		Cumulative Demand for Monitored Data Set 6			F52	R	
D97F-D980	55680-55681	11572	0		Accumulator for Monitored Data Set 7			F64	R	
D981-D982	55682-55683	11573	0		Peak Demand for Monitored Data Set 7			F120	R	
D983-D984	55684-55685	11574	0		Coincident Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D985-D987	55686-55688	11575	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
D989	55689	11576	0		Reserved			F51	R	
D989-D98A	55690-55691	11577	0		Cumulative Demand for Monitored Data Set 7			F52	R	
D98B-D98C	55692-55693	11578	0		Accumulator for Monitored Data Set 8			F64	R	
D98D-D98E	55694-55695	11579	0		Peak Demand for Monitored Data Set 8			F120	R	
D98F-D990	55696-55697	11580	0		Coincident Demand for Monitored Data Set 8			F120	R	
D991-D993	55698-55700	11581	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
D995	55701	11582	0		Reserved			F51	R	
D995-D996	55702-55703	11583	0		Cumulative Demand for Monitored Data Set 8			F52	R	
D997-D998	55704-55705	11584	0		Accumulator for Monitored Data Set 9			F64	R	
D999-D99A	55706-55707	11585	0		Peak Demand for Monitored Data Set 9			F120	R	
D99B-D99C	55708-55709	11586	0		Coincident Demand for Monitored Data Set 9			F120	R	
D99D-D99F	55710-55712	11587	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
D9A1	55713	11588	0		Reserved			F51	R	
D9A1-D9A2	55714-55715	11589	0		Cumulative Demand for Monitored Data Set 9			F52	R	
D9A3-D9A4	55716-55717	11590	0		Accumulator for Monitored Data Set 10			F64	R	
D9A5-D9A6	55718-55719	11591	0		Peak Demand for Monitored Data Set 10			F120	R	
D9A7-D9A8	55720-55721	11592	0		Coincident Demand for Monitored Data Set 10			F120	R	
D9A9-D9AB	55722-55724	11593	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
D9AD	55725	11594	0		Reserved			F51	R	
D9AD-D9AE	55726-55727	11595	0		Cumulative Demand for Monitored Data Set 10			F52	R	
D9AF-D9B0	55728-55729	11596	0		Accumulator for Monitored Data Set 11			F64	R	
D9B1-D9B2	55730-55731	11597	0		Peak Demand for Monitored Data Set 11			F120	R	
D9B3-D9B4	55732-55733	11598	0		Coincident Demand for Monitored Data Set 11			F120	R	
D9B5-D9B7	55734-55736	11599	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
D9B9	55737	11600	0		Reserved			F51	R	
D9B9-D9BA	55738-55739	11601	0		Cumulative Demand for Monitored Data Set 11			F52	R	
D9BB-D9BC	55740-55741	11602	0		Accumulator for Monitored Data Set 12			F64	R	
D9BD-D9BE	55742-55743	11603	0		Peak Demand for Monitored Data Set 12			F120	R	
D9BF-D9C0	55744-55745	11604	0		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D9C1-D9C3	55746-55748	11605	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
D9C5	55749	11606	0		Reserved			F51	R	
D9C5-D9C6	55750-55751	11607	0		Cumulative Demand for Monitored Data Set 12			F52	R	
D9C7-D9C8	55752-55753	11608	0		Accumulator for Monitored Data Set 13			F64	R	
D9C9-D9CA	55754-55755	11609	0		Peak Demand for Monitored Data Set 13			F120	R	
D9CB-D9CC	55756-55757	11610	0		Coincident Demand for Monitored Data Set 13			F120	R	
D9CD-D9CF	55758-55760	11611	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
D9D1	55761	11612	0		Reserved			F51	R	
D9D1-D9D2	55762-55763	11613	0		Cumulative Demand for Monitored Data Set 13			F52	R	
D9D3-D9D4	55764-55765	11614	0		Accumulator for Monitored Data Set 14			F64	R	
D9D5-D9D6	55766-55767	11615	0		Peak Demand for Monitored Data Set 14			F120	R	
D9D7-D9D8	55768-55769	11616	0		Coincident Demand for Monitored Data Set 14			F120	R	
D9D9-D9DB	55770-55772	11617	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
D9DD	55773	11618	0		Reserved			F51	R	
D9DD-D9DE	55774-55775	11619	0		Cumulative Demand for Monitored Data Set 14			F52	R	
D9DF-D9E0	55776-55777	11620	0		Accumulator for Monitored Data Set 15			F64	R	
D9E1-D9E2	55778-55779	11621	0		Peak Demand for Monitored Data Set 15			F120	R	
D9E3-D9E4	55780-55781	11622	0		Coincident Demand for Monitored Data Set 15			F120	R	
D9E5-D9E7	55782-55784	11623	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
D9E9	55785	11624	0		Reserved			F51	R	
D9E9-D9EA	55786-55787	11625	0		Cumulative Demand for Monitored Data Set 15			F52	R	
D9EB-D9EC	55788-55789	11626	0		Accumulator for Monitored Data Set 16			F64	R	
D9ED-D9EE	55790-55791	11627	0		Peak Demand for Monitored Data Set 16			F120	R	
D9EF-D9F0	55792-55793	11628	0		Coincident Demand for Monitored Data Set 16			F120	R	
D9F1-D9F3	55794-55796	11629	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
D9F5	55797	11630	0		Reserved			F51	R	
D9F5-D9F6	55798-55799	11631	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Final Season, Tier 3					
D9F7-D9F8	55800-55801	11632	0		Accumulator for Monitored Data Set 1			F64	R	
D9F9-D9FA	55802-55803	11633	0		Peak Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
D9FB-D9FC	55804-55805	11634	0		Coincident Demand for Monitored Data Set 1			F120	R	
D9FD-D9FF	55806-55808	11635	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DA01	55809	11636	0		Reserved			F51	R	
DA01-DA02	55810-55811	11637	0		Cumulative Demand for Monitored Data Set 1			F52	R	
DA03-DA04	55812-55813	11638	0		Accumulator for Monitored Data Set 2			F64	R	
DA05-DA06	55814-55815	11639	0		Peak Demand for Monitored Data Set 2			F120	R	
DA07-DA08	55816-55817	11640	0		Coincident Demand for Monitored Data Set 2			F120	R	
DA09-DA0B	55818-55820	11641	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DA0D	55821	11642	0		Reserved			F51	R	
DA0D-DA0E	55822-55823	11643	0		Cumulative Demand for Monitored Data Set 2			F52	R	
DA0F-DA10	55824-55825	11644	0		Accumulator for Monitored Data Set 3			F64	R	
DA11-DA12	55826-55827	11645	0		Peak Demand for Monitored Data Set 3			F120	R	
DA13-DA14	55828-55829	11646	0		Coincident Demand for Monitored Data Set 3			F120	R	
DA15-DA17	55830-55832	11647	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DA19	55833	11648	0		Reserved			F51	R	
DA19-DA1A	55834-55835	11649	0		Cumulative Demand for Monitored Data Set 3			F52	R	
DA1B-DA1C	55836-55837	11650	0		Accumulator for Monitored Data Set 4			F64	R	
DA1D-DA1E	55838-55839	11651	0		Peak Demand for Monitored Data Set 4			F120	R	
DA1F-DA20	55840-55841	11652	0		Coincident Demand for Monitored Data Set 4			F120	R	
DA21-DA23	55842-55844	11653	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DA25	55845	11654	0		Reserved			F51	R	
DA25-DA26	55846-55847	11655	0		Cumulative Demand for Monitored Data Set 4			F52	R	
DA27-DA28	55848-55849	11656	0		Accumulator for Monitored Data Set 5			F64	R	
DA29-DA2A	55850-55851	11657	0		Peak Demand for Monitored Data Set 5			F120	R	
DA2B-DA2C	55852-55853	11658	0		Coincident Demand for Monitored Data Set 5			F120	R	
DA2D-DA2F	55854-55856	11659	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DA31	55857	11660	0		Reserved			F51	R	
DA31-DA32	55858-55859	11661	0		Cumulative Demand for Monitored Data Set 5			F52	R	
DA33-DA34	55860-55861	11662	0		Accumulator for Monitored Data Set 6			F64	R	
DA35-DA36	55862-55863	11663	0		Peak Demand for Monitored Data Set 6			F120	R	
DA37-DA38	55864-55865	11664	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DA39-DA3B	55866-55868	11665	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DA3D	55869	11666	0		Reserved			F51	R	
DA3D-DA3E	55870-55871	11667	0		Cumulative Demand for Monitored Data Set 6			F52	R	
DA3F-DA40	55872-55873	11668	0		Accumulator for Monitored Data Set 7			F64	R	
DA41-DA42	55874-55875	11669	0		Peak Demand for Monitored Data Set 7			F120	R	
DA43-DA44	55876-55877	11670	0		Coincident Demand for Monitored Data Set 7			F120	R	
DA45-DA47	55878-55880	11671	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DA49	55881	11672	0		Reserved			F51	R	
DA49-DA4A	55882-55883	11673	0		Cumulative Demand for Monitored Data Set 7			F52	R	
DA4B-DA4C	55884-55885	11674	0		Accumulator for Monitored Data Set 8			F64	R	
DA4D-DA4E	55886-55887	11675	0		Peak Demand for Monitored Data Set 8			F120	R	
DA4F-DA50	55888-55889	11676	0		Coincident Demand for Monitored Data Set 8			F120	R	
DA51-DA53	55890-55892	11677	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DA55	55893	11678	0		Reserved			F51	R	
DA55-DA56	55894-55895	11679	0		Cumulative Demand for Monitored Data Set 8			F52	R	
DA57-DA58	55896-55897	11680	0		Accumulator for Monitored Data Set 9			F64	R	
DA59-DA5A	55898-55899	11681	0		Peak Demand for Monitored Data Set 9			F120	R	
DA5B-DA5C	55900-55901	11682	0		Coincident Demand for Monitored Data Set 9			F120	R	
DA5D-DA5F	55902-55904	11683	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DA61	55905	11684	0		Reserved			F51	R	
DA61-DA62	55906-55907	11685	0		Cumulative Demand for Monitored Data Set 9			F52	R	
DA63-DA64	55908-55909	11686	0		Accumulator for Monitored Data Set 10			F64	R	
DA65-DA66	55910-55911	11687	0		Peak Demand for Monitored Data Set 10			F120	R	
DA67-DA68	55912-55913	11688	0		Coincident Demand for Monitored Data Set 10			F120	R	
DA69-DA6B	55914-55916	11689	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DA6D	55917	11690	0		Reserved			F51	R	
DA6D-DA6E	55918-55919	11691	0		Cumulative Demand for Monitored Data Set 10			F52	R	
DA6F-DA70	55920-55921	11692	0		Accumulator for Monitored Data Set 11			F64	R	
DA71-DA72	55922-55923	11693	0		Peak Demand for Monitored Data Set 11			F120	R	
DA73-DA74	55924-55925	11694	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DA75-DA77	55926-55928	11695	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DA79	55929	11696	0		Reserved			F51	R	
DA79-DA7A	55930-55931	11697	0		Cumulative Demand for Monitored Data Set 11			F52	R	
DA7B-DA7C	55932-55933	11698	0		Accumulator for Monitored Data Set 12			F64	R	
DA7D-DA7E	55934-55935	11699	0		Peak Demand for Monitored Data Set 12			F120	R	
DA7F-DA80	55936-55937	11700	0		Coincident Demand for Monitored Data Set 12			F120	R	
DA81-DA83	55938-55940	11701	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DA85	55941	11702	0		Reserved			F51	R	
DA85-DA86	55942-55943	11703	0		Cumulative Demand for Monitored Data Set 12			F52	R	
DA87-DA88	55944-55945	11704	0		Accumulator for Monitored Data Set 13			F64	R	
DA89-DA8A	55946-55947	11705	0		Peak Demand for Monitored Data Set 13			F120	R	
DA8B-DA8C	55948-55949	11706	0		Coincident Demand for Monitored Data Set 13			F120	R	
DA8D-DA8F	55950-55952	11707	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DA91	55953	11708	0		Reserved			F51	R	
DA91-DA92	55954-55955	11709	0		Cumulative Demand for Monitored Data Set 13			F52	R	
DA93-DA94	55956-55957	11710	0		Accumulator for Monitored Data Set 14			F64	R	
DA95-DA96	55958-55959	11711	0		Peak Demand for Monitored Data Set 14			F120	R	
DA97-DA98	55960-55961	11712	0		Coincident Demand for Monitored Data Set 14			F120	R	
DA99-DA9B	55962-55964	11713	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DA9D	55965	11714	0		Reserved			F51	R	
DA9D-DA9E	55966-55967	11715	0		Cumulative Demand for Monitored Data Set 14			F52	R	
DA9F-DAA0	55968-55969	11716	0		Accumulator for Monitored Data Set 15			F64	R	
DAA1-DAA2	55970-55971	11717	0		Peak Demand for Monitored Data Set 15			F120	R	
DAA3-DAA4	55972-55973	11718	0		Coincident Demand for Monitored Data Set 15			F120	R	
DAA5-DAA7	55974-55976	11719	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DAA9	55977	11720	0		Reserved			F51	R	
DAA9-DAAA	55978-55979	11721	0		Cumulative Demand for Monitored Data Set 15			F52	R	
DAAB-DAAC	55980-55981	11722	0		Accumulator for Monitored Data Set 16			F64	R	
DAAD-DAAE	55982-55983	11723	0		Peak Demand for Monitored Data Set 16			F120	R	
DAAF-DAB0	55984-55985	11724	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DAB1-DAB3	55986-55988	11725	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DAB5	55989	11726	0		Reserved			F51	R	
DAB5-DAB6	55990-55991	11727	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Month, Final Season, Tier 4					
DAB7-DAB8	55992-55993	11728	0		Accumulator for Monitored Data Set 1			F64	R	
DAB9-DABA	55994-55995	11729	0		Peak Demand for Monitored Data Set 1			F120	R	
DABB-DABC	55996-55997	11730	0		Coincident Demand for Monitored Data Set 1			F120	R	
DABD-DABF	55998-56000	11731	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DAC1	56001	11732	0		Reserved			F51	R	
DAC1-DAC2	56002-56003	11733	0		Cumulative Demand for Monitored Data Set 1			F52	R	
DAC3-DAC4	56004-56005	11734	0		Accumulator for Monitored Data Set 2			F64	R	
DAC5-DAC6	56006-56007	11735	0		Peak Demand for Monitored Data Set 2			F120	R	
DAC7-DAC8	56008-56009	11736	0		Coincident Demand for Monitored Data Set 2			F120	R	
DAC9-DACB	56010-56012	11737	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DACD	56013	11738	0		Reserved			F51	R	
DACD-DACE	56014-56015	11739	0		Cumulative Demand for Monitored Data Set 2			F52	R	
DACF-DAD0	56016-56017	11740	0		Accumulator for Monitored Data Set 3			F64	R	
DAD1-DAD2	56018-56019	11741	0		Peak Demand for Monitored Data Set 3			F120	R	
DAD3-DAD4	56020-56021	11742	0		Coincident Demand for Monitored Data Set 3			F120	R	
DAD5-DAD7	56022-56024	11743	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DAD9	56025	11744	0		Reserved			F51	R	
DAD9-DADA	56026-56027	11745	0		Cumulative Demand for Monitored Data Set 3			F52	R	
DADB-DADC	56028-56029	11746	0		Accumulator for Monitored Data Set 4			F64	R	
DADD-DADE	56030-56031	11747	0		Peak Demand for Monitored Data Set 4			F120	R	
DADF-DAE0	56032-56033	11748	0		Coincident Demand for Monitored Data Set 4			F120	R	
DAE1-DAE3	56034-56036	11749	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DAE5	56037	11750	0		Reserved			F51	R	
DAE5-DAE6	56038-56039	11751	0		Cumulative Demand for Monitored Data Set 4			F52	R	
DAE7-DAE8	56040-56041	11752	0		Accumulator for Monitored Data Set 5			F64	R	
DAE9-DAEA	56042-56043	11753	0		Peak Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DAEB-DAEC	56044-56045	11754	0		Coincident Demand for Monitored Data Set 5			F120	R	
DAED-DAEF	56046-56048	11755	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DAF1	56049	11756	0		Reserved			F51	R	
DAF1-DAF2	56050-56051	11757	0		Cumulative Demand for Monitored Data Set 5			F52	R	
DAF3-DAF4	56052-56053	11758	0		Accumulator for Monitored Data Set 6			F64	R	
DAF5-DAF6	56054-56055	11759	0		Peak Demand for Monitored Data Set 6			F120	R	
DAF7-DAF8	56056-56057	11760	0		Coincident Demand for Monitored Data Set 6			F120	R	
DAF9-DAFB	56058-56060	11761	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DAFD	56061	11762	0		Reserved			F51	R	
DAFD-DAFE	56062-56063	11763	0		Cumulative Demand for Monitored Data Set 6			F52	R	
DAFF-DB00	56064-56065	11764	0		Accumulator for Monitored Data Set 7			F64	R	
DB01-DB02	56066-56067	11765	0		Peak Demand for Monitored Data Set 7			F120	R	
DB03-DB04	56068-56069	11766	0		Coincident Demand for Monitored Data Set 7			F120	R	
DB05-DB07	56070-56072	11767	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DB09	56073	11768	0		Reserved			F51	R	
DB09-DB0A	56074-56075	11769	0		Cumulative Demand for Monitored Data Set 7			F52	R	
DB0B-DB0C	56076-56077	11770	0		Accumulator for Monitored Data Set 8			F64	R	
DB0D-DB0E	56078-56079	11771	0		Peak Demand for Monitored Data Set 8			F120	R	
DB0F-DB10	56080-56081	11772	0		Coincident Demand for Monitored Data Set 8			F120	R	
DB11-DB13	56082-56084	11773	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DB15	56085	11774	0		Reserved			F51	R	
DB15-DB16	56086-56087	11775	0		Cumulative Demand for Monitored Data Set 8			F52	R	
DB17-DB18	56088-56089	11776	0		Accumulator for Monitored Data Set 9			F64	R	
DB19-DB1A	56090-56091	11777	0		Peak Demand for Monitored Data Set 9			F120	R	
DB1B-DB1C	56092-56093	11778	0		Coincident Demand for Monitored Data Set 9			F120	R	
DB1D-DB1F	56094-56096	11779	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DB21	56097	11780	0		Reserved			F51	R	
DB21-DB22	56098-56099	11781	0		Cumulative Demand for Monitored Data Set 9			F52	R	
DB23-DB24	56100-56101	11782	0		Accumulator for Monitored Data Set 10			F64	R	
DB25-DB26	56102-56103	11783	0		Peak Demand for Monitored Data Set 10			F120	R	
DB27-DB28	56104-56105	11784	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DB29-DB2B	56106-56108	11785	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DB2D	56109	11786	0		Reserved			F51	R	
DB2D-DB2E	56110-56111	11787	0		Cumulative Demand for Monitored Data Set 10			F52	R	
DB2F-DB30	56112-56113	11788	0		Accumulator for Monitored Data Set 11			F64	R	
DB31-DB32	56114-56115	11789	0		Peak Demand for Monitored Data Set 11			F120	R	
DB33-DB34	56116-56117	11790	0		Coincident Demand for Monitored Data Set 11			F120	R	
DB35-DB37	56118-56120	11791	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DB39	56121	11792	0		Reserved			F51	R	
DB39-DB3A	56122-56123	11793	0		Cumulative Demand for Monitored Data Set 11			F52	R	
DB3B-DB3C	56124-56125	11794	0		Accumulator for Monitored Data Set 12			F64	R	
DB3D-DB3E	56126-56127	11795	0		Peak Demand for Monitored Data Set 12			F120	R	
DB3F-DB40	56128-56129	11796	0		Coincident Demand for Monitored Data Set 12			F120	R	
DB41-DB43	56130-56132	11797	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DB45	56133	11798	0		Reserved			F51	R	
DB45-DB46	56134-56135	11799	0		Cumulative Demand for Monitored Data Set 12			F52	R	
DB47-DB48	56136-56137	11800	0		Accumulator for Monitored Data Set 13			F64	R	
DB49-DB4A	56138-56139	11801	0		Peak Demand for Monitored Data Set 13			F120	R	
DB4B-DB4C	56140-56141	11802	0		Coincident Demand for Monitored Data Set 13			F120	R	
DB4D-DB4F	56142-56144	11803	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DB51	56145	11804	0		Reserved			F51	R	
DB51-DB52	56146-56147	11805	0		Cumulative Demand for Monitored Data Set 13			F52	R	
DB53-DB54	56148-56149	11806	0		Accumulator for Monitored Data Set 14			F64	R	
DB55-DB56	56150-56151	11807	0		Peak Demand for Monitored Data Set 14			F120	R	
DB57-DB58	56152-56153	11808	0		Coincident Demand for Monitored Data Set 14			F120	R	
DB59-DB5B	56154-56156	11809	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DB5D	56157	11810	0		Reserved			F51	R	
DB5D-DB5E	56158-56159	11811	0		Cumulative Demand for Monitored Data Set 14			F52	R	
DB5F-DB60	56160-56161	11812	0		Accumulator for Monitored Data Set 15			F64	R	
DB61-DB62	56162-56163	11813	0		Peak Demand for Monitored Data Set 15			F120	R	
DB63-DB64	56164-56165	11814	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DB65-DB67	56166-56168	11815	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DB69	56169	11816	0		Reserved			F51	R	
DB69-DB6A	56170-56171	11817	0		Cumulative Demand for Monitored Data Set 15			F52	R	
DB6B-DB6C	56172-56173	11818	0		Accumulator for Monitored Data Set 16			F64	R	
DB6D-DB6E	56174-56175	11819	0		Peak Demand for Monitored Data Set 16			F120	R	
DB6F-DB70	56176-56177	11820	0		Coincident Demand for Monitored Data Set 16			F120	R	
DB71-DB73	56178-56180	11821	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DB75	56181	11822	0		Reserved			F51	R	
DB75-DB76	56182-56183	11823	0		Cumulative Demand for Monitored Data Set 16			F52	R	
		base=11824, group count=96, groups=15			Tier 0 is for total Prior Month Tier 0: Whole month data Prior Month Tier 1: Whole month data Prior Month Tier 2: Whole month data Prior Month Tier 3: Whole month data Prior Month Tier 4: Whole month data Prior Month Tier 0: Initial season data Prior Month Tier 1: Initial season data Prior Month Tier 2: Initial season data Prior Month Tier 3: Initial season data Prior Month Tier 4: Initial season data Prior Month Tier 0: Final season data Prior Month Tier 1: Final season data Prior Month Tier 2: Final season data Prior Month Tier 3: Final season data Prior Month Tier 4: Final season data					
					Prior Month, Whole Month, Tier 0					
DB77-DB78	56184-56185	11824	56184		Accumulator for Monitored Data Set 1			F64	R	
DB79-DB7A	56186-56187	11825	56186		Peak Demand for Monitored Data Set 1			F120	R	
DB7B-DB7C	56188-56189	11826	56188		Coincident Demand for Monitored Data Set 1			F120	R	
DB7D-DB7F	56190-56192	11827	56190		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DB81	56193	11828	56193		Reserved			F51	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DB81-DB82	56194-56195	11829	56194		Cumulative Demand for Monitored Data Set 1			F52	R	
DB83-DB84	56196-56197	11830	56196		Accumulator for Monitored Data Set 2			F64	R	
DB85-DB86	56198-56199	11831	56198		Peak Demand for Monitored Data Set 2			F120	R	
DB87-DB88	56200-56201	11832	56200		Coincident Demand for Monitored Data Set 2			F120	R	
DB89-DB8B	56202-56204	11833	56202		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DB8D	56205	11834	56205		Reserved			F51	R	
DB8D-DB8E	56206-56207	11835	56206		Cumulative Demand for Monitored Data Set 2			F52	R	
DB8F-DB90	56208-56209	11836	56208		Accumulator for Monitored Data Set 3			F64	R	
DB91-DB92	56210-56211	11837	56210		Peak Demand for Monitored Data Set 3			F120	R	
DB93-DB94	56212-56213	11838	56212		Coincident Demand for Monitored Data Set 3			F120	R	
DB95-DB97	56214-56216	11839	56214		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DB99	56217	11840	56217		Reserved			F51	R	
DB99-DB9A	56218-56219	11841	56218		Cumulative Demand for Monitored Data Set 3			F52	R	
DB9B-DB9C	56220-56221	11842	56220		Accumulator for Monitored Data Set 4			F64	R	
DB9D-DB9E	56222-56223	11843	56222		Peak Demand for Monitored Data Set 4			F120	R	
DB9F-DBA0	56224-56225	11844	56224		Coincident Demand for Monitored Data Set 4			F120	R	
DBA1-DBA3	56226-56228	11845	56226		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DBA5	56229	11846	56229		Reserved			F51	R	
DBA5-DBA6	56230-56231	11847	56230		Cumulative Demand for Monitored Data Set 4			F52	R	
DBA7-DBA8	56232-56233	11848	56232		Accumulator for Monitored Data Set 5			F64	R	
DBA9-DBAA	56234-56235	11849	56234		Peak Demand for Monitored Data Set 5			F120	R	
DBAB-DBAC	56236-56237	11850	56236		Coincident Demand for Monitored Data Set 5			F120	R	
DBAD-DBAF	56238-56240	11851	56238		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DBB1	56241	11852	56241		Reserved			F51	R	
DBB1-DBB2	56242-56243	11853	56242		Cumulative Demand for Monitored Data Set 5			F52	R	
DBB3-DBB4	56244-56245	11854	56244		Accumulator for Monitored Data Set 6			F64	R	
DBB5-DBB6	56246-56247	11855	56246		Peak Demand for Monitored Data Set 6			F120	R	
DBB7-DBB8	56248-56249	11856	56248		Coincident Demand for Monitored Data Set 6			F120	R	
DBB9-DBBB	56250-56252	11857	56250		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DBBD	56253	11858	56253		Reserved			F51	R	
DBBD-DBBE	56254-56255	11859	56254		Cumulative Demand for Monitored Data Set 6			F52	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DBBF-DBC0	56256-56257	11860	56256		Accumulator for Monitored Data Set 7			F64	R	
DBC1-DBC2	56258-56259	11861	56258		Peak Demand for Monitored Data Set 7			F120	R	
DBC3-DBC4	56260-56261	11862	56260		Coincident Demand for Monitored Data Set 7			F120	R	
DBC5-DBC7	56262-56264	11863	56262		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DBC9	56265	11864	56265		Reserved			F51	R	
DBC9-DBCA	56266-56267	11865	56266		Cumulative Demand for Monitored Data Set 7			F52	R	
DBC9-DBCC	56268-56269	11866	56268		Accumulator for Monitored Data Set 8			F64	R	
DBC9-DBCE	56270-56271	11867	56270		Peak Demand for Monitored Data Set 8			F120	R	
DBC9-DBD0	56272-56273	11868	56272		Coincident Demand for Monitored Data Set 8			F120	R	
DBD1-DBD3	56274-56276	11869	56274		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DBD5	56277	11870	56277		Reserved			F51	R	
DBD5-DBD6	56278-56279	11871	56278		Cumulative Demand for Monitored Data Set 8			F52	R	
DBD7-DBD8	56280-56281	11872	56280		Accumulator for Monitored Data Set 9			F64	R	
DBD9-DBDA	56282-56283	11873	56282		Peak Demand for Monitored Data Set 9			F120	R	
DBDB-DBDC	56284-56285	11874	56284		Coincident Demand for Monitored Data Set 9			F120	R	
DBDD-DBDF	56286-56288	11875	56286		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DBE1	56289	11876	56289		Reserved			F51	R	
DBE1-DBE2	56290-56291	11877	56290		Cumulative Demand for Monitored Data Set 9			F52	R	
DBE3-DBE4	56292-56293	11878	56292		Accumulator for Monitored Data Set 10			F64	R	
DBE5-DBE6	56294-56295	11879	56294		Peak Demand for Monitored Data Set 10			F120	R	
DBE7-DBE8	56296-56297	11880	56296		Coincident Demand for Monitored Data Set 10			F120	R	
DBE9-DBEB	56298-56300	11881	56298		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DBED	56301	11882	56301		Reserved			F51	R	
DBED-DBEE	56302-56303	11883	56302		Cumulative Demand for Monitored Data Set 10			F52	R	
DBEF-DBF0	56304-56305	11884	56304		Accumulator for Monitored Data Set 11			F64	R	
DBF1-DBF2	56306-56307	11885	56306		Peak Demand for Monitored Data Set 11			F120	R	
DBF3-DBF4	56308-56309	11886	56308		Coincident Demand for Monitored Data Set 11			F120	R	
DBF5-DBF7	56310-56312	11887	56310		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DBF9	56313	11888	56313		Reserved			F51	R	
DBF9-DBFA	56314-56315	11889	56314		Cumulative Demand for Monitored Data Set 11			F52	R	
DBFB-DBFC	56316-56317	11890	56316		Accumulator for Monitored Data Set 12			F64	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DBFD-DBFE	56318-56319	11891	56318		Peak Demand for Monitored Data Set 12			F120	R	
DBFF-DC00	56320-56321	11892	56320		Coincident Demand for Monitored Data Set 12			F120	R	
DC01-DC03	56322-56324	11893	56322		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DC05	56325	11894	56325		Reserved			F51	R	
DC05-DC06	56326-56327	11895	56326		Cumulative Demand for Monitored Data Set 12			F52	R	
DC07-DC08	56328-56329	11896	56328		Accumulator for Monitored Data Set 13			F64	R	
DC09-DC0A	56330-56331	11897	56330		Peak Demand for Monitored Data Set 13			F120	R	
DC0B-DC0C	56332-56333	11898	56332		Coincident Demand for Monitored Data Set 13			F120	R	
DC0D-DC0F	56334-56336	11899	56334		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DC11	56337	11900	56337		Reserved			F51	R	
DC11-DC12	56338-56339	11901	56338		Cumulative Demand for Monitored Data Set 13			F52	R	
DC13-DC14	56340-56341	11902	56340		Accumulator for Monitored Data Set 14			F64	R	
DC15-DC16	56342-56343	11903	56342		Peak Demand for Monitored Data Set 14			F120	R	
DC17-DC18	56344-56345	11904	56344		Coincident Demand for Monitored Data Set 14			F120	R	
DC19-DC1B	56346-56348	11905	56346		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DC1D	56349	11906	56349		Reserved			F51	R	
DC1D-DC1E	56350-56351	11907	56350		Cumulative Demand for Monitored Data Set 14			F52	R	
DC1F-DC20	56352-56353	11908	56352		Accumulator for Monitored Data Set 15			F64	R	
DC21-DC22	56354-56355	11909	56354		Peak Demand for Monitored Data Set 15			F120	R	
DC23-DC24	56356-56357	11910	56356		Coincident Demand for Monitored Data Set 15			F120	R	
DC25-DC27	56358-56360	11911	56358		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DC29	56361	11912	56361		Reserved			F51	R	
DC29-DC2A	56362-56363	11913	56362		Cumulative Demand for Monitored Data Set 15			F52	R	
DC2B-DC2C	56364-56365	11914	56364		Accumulator for Monitored Data Set 16			F64	R	
DC2D-DC2E	56366-56367	11915	56366		Peak Demand for Monitored Data Set 16			F120	R	
DC2F-DC30	56368-56369	11916	56368		Coincident Demand for Monitored Data Set 16			F120	R	
DC31-DC33	56370-56372	11917	56370		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DC35	56373	11918	56373		Reserved			F51	R	
DC35-DC36	56374-56375	11919	56374		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Whole Month, Tier 1					
DC37-DC38	56376-56377	11920	0		Accumulator for Monitored Data Set 1			F64	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DC39-DC3A	56378-56379	11921	0		Peak Demand for Monitored Data Set 1			F120	R	
DC3B-DC3C	56380-56381	11922	0		Coincident Demand for Monitored Data Set 1			F120	R	
DC3D-DC3F	56382-56384	11923	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DC41	56385	11924	0		Reserved			F51	R	
DC41-DC42	56386-56387	11925	0		Cumulative Demand for Monitored Data Set 1			F52	R	
DC43-DC44	56388-56389	11926	0		Accumulator for Monitored Data Set 2			F64	R	
DC45-DC46	56390-56391	11927	0		Peak Demand for Monitored Data Set 2			F120	R	
DC47-DC48	56392-56393	11928	0		Coincident Demand for Monitored Data Set 2			F120	R	
DC49-DC4B	56394-56396	11929	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DC4D	56397	11930	0		Reserved			F51	R	
DC4D-DC4E	56398-56399	11931	0		Cumulative Demand for Monitored Data Set 2			F52	R	
DC4F-DC50	56400-56401	11932	0		Accumulator for Monitored Data Set 3			F64	R	
DC51-DC52	56402-56403	11933	0		Peak Demand for Monitored Data Set 3			F120	R	
DC53-DC54	56404-56405	11934	0		Coincident Demand for Monitored Data Set 3			F120	R	
DC55-DC57	56406-56408	11935	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DC59	56409	11936	0		Reserved			F51	R	
DC59-DC5A	56410-56411	11937	0		Cumulative Demand for Monitored Data Set 3			F52	R	
DC5B-DC5C	56412-56413	11938	0		Accumulator for Monitored Data Set 4			F64	R	
DC5D-DC5E	56414-56415	11939	0		Peak Demand for Monitored Data Set 4			F120	R	
DC5F-DC60	56416-56417	11940	0		Coincident Demand for Monitored Data Set 4			F120	R	
DC61-DC63	56418-56420	11941	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DC65	56421	11942	0		Reserved			F51	R	
DC65-DC66	56422-56423	11943	0		Cumulative Demand for Monitored Data Set 4			F52	R	
DC67-DC68	56424-56425	11944	0		Accumulator for Monitored Data Set 5			F64	R	
DC69-DC6A	56426-56427	11945	0		Peak Demand for Monitored Data Set 5			F120	R	
DC6B-DC6C	56428-56429	11946	0		Coincident Demand for Monitored Data Set 5			F120	R	
DC6D-DC6F	56430-56432	11947	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DC71	56433	11948	0		Reserved			F51	R	
DC71-DC72	56434-56435	11949	0		Cumulative Demand for Monitored Data Set 5			F52	R	
DC73-DC74	56436-56437	11950	0		Accumulator for Monitored Data Set 6			F64	R	
DC75-DC76	56438-56439	11951	0		Peak Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DC77-DC78	56440-56441	11952	0		Coincident Demand for Monitored Data Set 6			F120	R	
DC79-DC7B	56442-56444	11953	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DC7D	56445	11954	0		Reserved			F51	R	
DC7D-DC7E	56446-56447	11955	0		Cumulative Demand for Monitored Data Set 6			F52	R	
DC7F-DC80	56448-56449	11956	0		Accumulator for Monitored Data Set 7			F64	R	
DC81-DC82	56450-56451	11957	0		Peak Demand for Monitored Data Set 7			F120	R	
DC83-DC84	56452-56453	11958	0		Coincident Demand for Monitored Data Set 7			F120	R	
DC85-DC87	56454-56456	11959	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DC89	56457	11960	0		Reserved			F51	R	
DC89-DC8A	56458-56459	11961	0		Cumulative Demand for Monitored Data Set 7			F52	R	
DC8B-DC8C	56460-56461	11962	0		Accumulator for Monitored Data Set 8			F64	R	
DC8D-DC8E	56462-56463	11963	0		Peak Demand for Monitored Data Set 8			F120	R	
DC8F-DC90	56464-56465	11964	0		Coincident Demand for Monitored Data Set 8			F120	R	
DC91-DC93	56466-56468	11965	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DC95	56469	11966	0		Reserved			F51	R	
DC95-DC96	56470-56471	11967	0		Cumulative Demand for Monitored Data Set 8			F52	R	
DC97-DC98	56472-56473	11968	0		Accumulator for Monitored Data Set 9			F64	R	
DC99-DC9A	56474-56475	11969	0		Peak Demand for Monitored Data Set 9			F120	R	
DC9B-DC9C	56476-56477	11970	0		Coincident Demand for Monitored Data Set 9			F120	R	
DC9D-DC9F	56478-56480	11971	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DCA1	56481	11972	0		Reserved			F51	R	
DCA1-DCA2	56482-56483	11973	0		Cumulative Demand for Monitored Data Set 9			F52	R	
DCA3-DCA4	56484-56485	11974	0		Accumulator for Monitored Data Set 10			F64	R	
DCA5-DCA6	56486-56487	11975	0		Peak Demand for Monitored Data Set 10			F120	R	
DCA7-DCA8	56488-56489	11976	0		Coincident Demand for Monitored Data Set 10			F120	R	
DCA9-DCAB	56490-56492	11977	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DCAD	56493	11978	0		Reserved			F51	R	
DCAD-DCAE	56494-56495	11979	0		Cumulative Demand for Monitored Data Set 10			F52	R	
DCAF-DCB0	56496-56497	11980	0		Accumulator for Monitored Data Set 11			F64	R	
DCB1-DCB2	56498-56499	11981	0		Peak Demand for Monitored Data Set 11			F120	R	
DCB3-DCB4	56500-56501	11982	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DCB5-DCB7	56502-56504	11983	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DCB9	56505	11984	0		Reserved			F51	R	
DCB9-DCBA	56506-56507	11985	0		Cumulative Demand for Monitored Data Set 11			F52	R	
DCBB-DCBC	56508-56509	11986	0		Accumulator for Monitored Data Set 12			F64	R	
DCBD-DCBE	56510-56511	11987	0		Peak Demand for Monitored Data Set 12			F120	R	
DCBF-DCC0	56512-56513	11988	0		Coincident Demand for Monitored Data Set 12			F120	R	
DCC1-DCC3	56514-56516	11989	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DCC5	56517	11990	0		Reserved			F51	R	
DCC5-DCC6	56518-56519	11991	0		Cumulative Demand for Monitored Data Set 12			F52	R	
DCC7-DCC8	56520-56521	11992	0		Accumulator for Monitored Data Set 13			F64	R	
DCC9-DCCA	56522-56523	11993	0		Peak Demand for Monitored Data Set 13			F120	R	
DCCB-DCCC	56524-56525	11994	0		Coincident Demand for Monitored Data Set 13			F120	R	
DCCD-DCCF	56526-56528	11995	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DCD1	56529	11996	0		Reserved			F51	R	
DCD1-DCD2	56530-56531	11997	0		Cumulative Demand for Monitored Data Set 13			F52	R	
DCD3-DCD4	56532-56533	11998	0		Accumulator for Monitored Data Set 14			F64	R	
DCD5-DCD6	56534-56535	11999	0		Peak Demand for Monitored Data Set 14			F120	R	
DCD7-DCD8	56536-56537	12000	0		Coincident Demand for Monitored Data Set 14			F120	R	
DCD9-DCDB	56538-56540	12001	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DCDD	56541	12002	0		Reserved			F51	R	
DCDD-DCDE	56542-56543	12003	0		Cumulative Demand for Monitored Data Set 14			F52	R	
DCDF-DCE0	56544-56545	12004	0		Accumulator for Monitored Data Set 15			F64	R	
DCE1-DCE2	56546-56547	12005	0		Peak Demand for Monitored Data Set 15			F120	R	
DCE3-DCE4	56548-56549	12006	0		Coincident Demand for Monitored Data Set 15			F120	R	
DCE5-DCE7	56550-56552	12007	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DCE9	56553	12008	0		Reserved			F51	R	
DCE9-DCEA	56554-56555	12009	0		Cumulative Demand for Monitored Data Set 15			F52	R	
DCEB-DCEC	56556-56557	12010	0		Accumulator for Monitored Data Set 16			F64	R	
DCED-DCEE	56558-56559	12011	0		Peak Demand for Monitored Data Set 16			F120	R	
DCEF-DCF0	56560-56561	12012	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DCF1-DCF3	56562-56564	12013	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DCF5	56565	12014	0		Reserved			F51	R	
DCF5-DCF6	56566-56567	12015	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Whole Month, Tier 2					
DCF7-DCF8	56568-56569	12016	0		Accumulator for Monitored Data Set 1			F64	R	
DCF9-DCFA	56570-56571	12017	0		Peak Demand for Monitored Data Set 1			F120	R	
DCFB-DCFC	56572-56573	12018	0		Coincident Demand for Monitored Data Set 1			F120	R	
DCFD-DCFF	56574-56576	12019	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DD01	56577	12020	0		Reserved			F51	R	
DD01-DD02	56578-56579	12021	0		Cumulative Demand for Monitored Data Set 1			F52	R	
DD03-DD04	56580-56581	12022	0		Accumulator for Monitored Data Set 2			F64	R	
DD05-DD06	56582-56583	12023	0		Peak Demand for Monitored Data Set 2			F120	R	
DD07-DD08	56584-56585	12024	0		Coincident Demand for Monitored Data Set 2			F120	R	
DD09-DD0B	56586-56588	12025	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DD0D	56589	12026	0		Reserved			F51	R	
DD0D-DD0E	56590-56591	12027	0		Cumulative Demand for Monitored Data Set 2			F52	R	
DD0F-DD10	56592-56593	12028	0		Accumulator for Monitored Data Set 3			F64	R	
DD11-DD12	56594-56595	12029	0		Peak Demand for Monitored Data Set 3			F120	R	
DD13-DD14	56596-56597	12030	0		Coincident Demand for Monitored Data Set 3			F120	R	
DD15-DD17	56598-56600	12031	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DD19	56601	12032	0		Reserved			F51	R	
DD19-DD1A	56602-56603	12033	0		Cumulative Demand for Monitored Data Set 3			F52	R	
DD1B-DD1C	56604-56605	12034	0		Accumulator for Monitored Data Set 4			F64	R	
DD1D-DD1E	56606-56607	12035	0		Peak Demand for Monitored Data Set 4			F120	R	
DD1F-DD20	56608-56609	12036	0		Coincident Demand for Monitored Data Set 4			F120	R	
DD21-DD23	56610-56612	12037	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DD25	56613	12038	0		Reserved			F51	R	
DD25-DD26	56614-56615	12039	0		Cumulative Demand for Monitored Data Set 4			F52	R	
DD27-DD28	56616-56617	12040	0		Accumulator for Monitored Data Set 5			F64	R	
DD29-DD2A	56618-56619	12041	0		Peak Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DD2B-DD2C	56620-56621	12042	0		Coincident Demand for Monitored Data Set 5			F120	R	
DD2D-DD2F	56622-56624	12043	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DD31	56625	12044	0		Reserved			F51	R	
DD31-DD32	56626-56627	12045	0		Cumulative Demand for Monitored Data Set 5			F52	R	
DD33-DD34	56628-56629	12046	0		Accumulator for Monitored Data Set 6			F64	R	
DD35-DD36	56630-56631	12047	0		Peak Demand for Monitored Data Set 6			F120	R	
DD37-DD38	56632-56633	12048	0		Coincident Demand for Monitored Data Set 6			F120	R	
DD39-DD3B	56634-56636	12049	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DD3D	56637	12050	0		Reserved			F51	R	
DD3D-DD3E	56638-56639	12051	0		Cumulative Demand for Monitored Data Set 6			F52	R	
DD3F-DD40	56640-56641	12052	0		Accumulator for Monitored Data Set 7			F64	R	
DD41-DD42	56642-56643	12053	0		Peak Demand for Monitored Data Set 7			F120	R	
DD43-DD44	56644-56645	12054	0		Coincident Demand for Monitored Data Set 7			F120	R	
DD45-DD47	56646-56648	12055	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DD49	56649	12056	0		Reserved			F51	R	
DD49-DD4A	56650-56651	12057	0		Cumulative Demand for Monitored Data Set 7			F52	R	
DD4B-DD4C	56652-56653	12058	0		Accumulator for Monitored Data Set 8			F64	R	
DD4D-DD4E	56654-56655	12059	0		Peak Demand for Monitored Data Set 8			F120	R	
DD4F-DD50	56656-56657	12060	0		Coincident Demand for Monitored Data Set 8			F120	R	
DD51-DD53	56658-56660	12061	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DD55	56661	12062	0		Reserved			F51	R	
DD55-DD56	56662-56663	12063	0		Cumulative Demand for Monitored Data Set 8			F52	R	
DD57-DD58	56664-56665	12064	0		Accumulator for Monitored Data Set 9			F64	R	
DD59-DD5A	56666-56667	12065	0		Peak Demand for Monitored Data Set 9			F120	R	
DD5B-DD5C	56668-56669	12066	0		Coincident Demand for Monitored Data Set 9			F120	R	
DD5D-DD5F	56670-56672	12067	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DD61	56673	12068	0		Reserved			F51	R	
DD61-DD62	56674-56675	12069	0		Cumulative Demand for Monitored Data Set 9			F52	R	
DD63-DD64	56676-56677	12070	0		Accumulator for Monitored Data Set 10			F64	R	
DD65-DD66	56678-56679	12071	0		Peak Demand for Monitored Data Set 10			F120	R	
DD67-DD68	56680-56681	12072	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DD69-DD6B	56682-56684	12073	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DD6D	56685	12074	0		Reserved			F51	R	
DD6D-DD6E	56686-56687	12075	0		Cumulative Demand for Monitored Data Set 10			F52	R	
DD6F-DD70	56688-56689	12076	0		Accumulator for Monitored Data Set 11			F64	R	
DD71-DD72	56690-56691	12077	0		Peak Demand for Monitored Data Set 11			F120	R	
DD73-DD74	56692-56693	12078	0		Coincident Demand for Monitored Data Set 11			F120	R	
DD75-DD77	56694-56696	12079	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DD79	56697	12080	0		Reserved			F51	R	
DD79-DD7A	56698-56699	12081	0		Cumulative Demand for Monitored Data Set 11			F52	R	
DD7B-DD7C	56700-56701	12082	0		Accumulator for Monitored Data Set 12			F64	R	
DD7D-DD7E	56702-56703	12083	0		Peak Demand for Monitored Data Set 12			F120	R	
DD7F-DD80	56704-56705	12084	0		Coincident Demand for Monitored Data Set 12			F120	R	
DD81-DD83	56706-56708	12085	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DD85	56709	12086	0		Reserved			F51	R	
DD85-DD86	56710-56711	12087	0		Cumulative Demand for Monitored Data Set 12			F52	R	
DD87-DD88	56712-56713	12088	0		Accumulator for Monitored Data Set 13			F64	R	
DD89-DD8A	56714-56715	12089	0		Peak Demand for Monitored Data Set 13			F120	R	
DD8B-DD8C	56716-56717	12090	0		Coincident Demand for Monitored Data Set 13			F120	R	
DD8D-DD8F	56718-56720	12091	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DD91	56721	12092	0		Reserved			F51	R	
DD91-DD92	56722-56723	12093	0		Cumulative Demand for Monitored Data Set 13			F52	R	
DD93-DD94	56724-56725	12094	0		Accumulator for Monitored Data Set 14			F64	R	
DD95-DD96	56726-56727	12095	0		Peak Demand for Monitored Data Set 14			F120	R	
DD97-DD98	56728-56729	12096	0		Coincident Demand for Monitored Data Set 14			F120	R	
DD99-DD9B	56730-56732	12097	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DD9D	56733	12098	0		Reserved			F51	R	
DD9D-DD9E	56734-56735	12099	0		Cumulative Demand for Monitored Data Set 14			F52	R	
DD9F-DDA0	56736-56737	12100	0		Accumulator for Monitored Data Set 15			F64	R	
DDA1-DDA2	56738-56739	12101	0		Peak Demand for Monitored Data Set 15			F120	R	
DDA3-DDA4	56740-56741	12102	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DDA5-DDA7	56742-56744	12103	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DDA9	56745	12104	0		Reserved			F51	R	
DDA9-DDAA	56746-56747	12105	0		Cumulative Demand for Monitored Data Set 15			F52	R	
DDAB-DDAC	56748-56749	12106	0		Accumulator for Monitored Data Set 16			F64	R	
DDAD-DDAE	56750-56751	12107	0		Peak Demand for Monitored Data Set 16			F120	R	
DDAF-DDB0	56752-56753	12108	0		Coincident Demand for Monitored Data Set 16			F120	R	
DDB1-DDB3	56754-56756	12109	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DDB5	56757	12110	0		Reserved			F51	R	
DDB5-DDB6	56758-56759	12111	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Whole Month, Tier 3					
DDB7-DDB8	56760-56761	12112	0		Accumulator for Monitored Data Set 1			F64	R	
DDB9-DDBA	56762-56763	12113	0		Peak Demand for Monitored Data Set 1			F120	R	
DDBB-DDBC	56764-56765	12114	0		Coincident Demand for Monitored Data Set 1			F120	R	
DDBD-DDBF	56766-56768	12115	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DDC1	56769	12116	0		Reserved			F51	R	
DDC1-DDC2	56770-56771	12117	0		Cumulative Demand for Monitored Data Set 1			F52	R	
DDC3-DDC4	56772-56773	12118	0		Accumulator for Monitored Data Set 2			F64	R	
DDC5-DDC6	56774-56775	12119	0		Peak Demand for Monitored Data Set 2			F120	R	
DDC7-DDC8	56776-56777	12120	0		Coincident Demand for Monitored Data Set 2			F120	R	
DDC9-DDCB	56778-56780	12121	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DDCD	56781	12122	0		Reserved			F51	R	
DDCD-DDCE	56782-56783	12123	0		Cumulative Demand for Monitored Data Set 2			F52	R	
DDCF-DDD0	56784-56785	12124	0		Accumulator for Monitored Data Set 3			F64	R	
DDD1-DDD2	56786-56787	12125	0		Peak Demand for Monitored Data Set 3			F120	R	
DDD3-DDD4	56788-56789	12126	0		Coincident Demand for Monitored Data Set 3			F120	R	
DDD5-DDD7	56790-56792	12127	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DDD9	56793	12128	0		Reserved			F51	R	
DDD9-DDDA	56794-56795	12129	0		Cumulative Demand for Monitored Data Set 3			F52	R	
DDDB-DDDC	56796-56797	12130	0		Accumulator for Monitored Data Set 4			F64	R	
DDDD-DDDE	56798-56799	12131	0		Peak Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DDDF-DDE0	56800-56801	12132	0		Coincident Demand for Monitored Data Set 4			F120	R	
DDE1-DDE3	56802-56804	12133	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DDE5	56805	12134	0		Reserved			F51	R	
DDE5-DDE6	56806-56807	12135	0		Cumulative Demand for Monitored Data Set 4			F52	R	
DDE7-DDE8	56808-56809	12136	0		Accumulator for Monitored Data Set 5			F64	R	
DDE9-DDEA	56810-56811	12137	0		Peak Demand for Monitored Data Set 5			F120	R	
DDEB-DDEC	56812-56813	12138	0		Coincident Demand for Monitored Data Set 5			F120	R	
DDED-DDEF	56814-56816	12139	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DDF1	56817	12140	0		Reserved			F51	R	
DDF1-DDF2	56818-56819	12141	0		Cumulative Demand for Monitored Data Set 5			F52	R	
DDF3-DDF4	56820-56821	12142	0		Accumulator for Monitored Data Set 6			F64	R	
DDF5-DDF6	56822-56823	12143	0		Peak Demand for Monitored Data Set 6			F120	R	
DDF7-DDF8	56824-56825	12144	0		Coincident Demand for Monitored Data Set 6			F120	R	
DDF9-DDFB	56826-56828	12145	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DDFD	56829	12146	0		Reserved			F51	R	
DDFD-DDFE	56830-56831	12147	0		Cumulative Demand for Monitored Data Set 6			F52	R	
DDFF-DE00	56832-56833	12148	0		Accumulator for Monitored Data Set 7			F64	R	
DE01-DE02	56834-56835	12149	0		Peak Demand for Monitored Data Set 7			F120	R	
DE03-DE04	56836-56837	12150	0		Coincident Demand for Monitored Data Set 7			F120	R	
DE05-DE07	56838-56840	12151	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DE09	56841	12152	0		Reserved			F51	R	
DE09-DE0A	56842-56843	12153	0		Cumulative Demand for Monitored Data Set 7			F52	R	
DE0B-DE0C	56844-56845	12154	0		Accumulator for Monitored Data Set 8			F64	R	
DE0D-DE0E	56846-56847	12155	0		Peak Demand for Monitored Data Set 8			F120	R	
DE0F-DE10	56848-56849	12156	0		Coincident Demand for Monitored Data Set 8			F120	R	
DE11-DE13	56850-56852	12157	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DE15	56853	12158	0		Reserved			F51	R	
DE15-DE16	56854-56855	12159	0		Cumulative Demand for Monitored Data Set 8			F52	R	
DE17-DE18	56856-56857	12160	0		Accumulator for Monitored Data Set 9			F64	R	
DE19-DE1A	56858-56859	12161	0		Peak Demand for Monitored Data Set 9			F120	R	
DE1B-DE1C	56860-56861	12162	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DE1D-DE1F	56862-56864	12163	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DE21	56865	12164	0		Reserved			F51	R	
DE21-DE22	56866-56867	12165	0		Cumulative Demand for Monitored Data Set 9			F52	R	
DE23-DE24	56868-56869	12166	0		Accumulator for Monitored Data Set 10			F64	R	
DE25-DE26	56870-56871	12167	0		Peak Demand for Monitored Data Set 10			F120	R	
DE27-DE28	56872-56873	12168	0		Coincident Demand for Monitored Data Set 10			F120	R	
DE29-DE2B	56874-56876	12169	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DE2D	56877	12170	0		Reserved			F51	R	
DE2D-DE2E	56878-56879	12171	0		Cumulative Demand for Monitored Data Set 10			F52	R	
DE2F-DE30	56880-56881	12172	0		Accumulator for Monitored Data Set 11			F64	R	
DE31-DE32	56882-56883	12173	0		Peak Demand for Monitored Data Set 11			F120	R	
DE33-DE34	56884-56885	12174	0		Coincident Demand for Monitored Data Set 11			F120	R	
DE35-DE37	56886-56888	12175	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DE39	56889	12176	0		Reserved			F51	R	
DE39-DE3A	56890-56891	12177	0		Cumulative Demand for Monitored Data Set 11			F52	R	
DE3B-DE3C	56892-56893	12178	0		Accumulator for Monitored Data Set 12			F64	R	
DE3D-DE3E	56894-56895	12179	0		Peak Demand for Monitored Data Set 12			F120	R	
DE3F-DE40	56896-56897	12180	0		Coincident Demand for Monitored Data Set 12			F120	R	
DE41-DE43	56898-56900	12181	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DE45	56901	12182	0		Reserved			F51	R	
DE45-DE46	56902-56903	12183	0		Cumulative Demand for Monitored Data Set 12			F52	R	
DE47-DE48	56904-56905	12184	0		Accumulator for Monitored Data Set 13			F64	R	
DE49-DE4A	56906-56907	12185	0		Peak Demand for Monitored Data Set 13			F120	R	
DE4B-DE4C	56908-56909	12186	0		Coincident Demand for Monitored Data Set 13			F120	R	
DE4D-DE4F	56910-56912	12187	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DE51	56913	12188	0		Reserved			F51	R	
DE51-DE52	56914-56915	12189	0		Cumulative Demand for Monitored Data Set 13			F52	R	
DE53-DE54	56916-56917	12190	0		Accumulator for Monitored Data Set 14			F64	R	
DE55-DE56	56918-56919	12191	0		Peak Demand for Monitored Data Set 14			F120	R	
DE57-DE58	56920-56921	12192	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DE59-DE5B	56922-56924	12193	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DE5D	56925	12194	0		Reserved			F51	R	
DE5D-DE5E	56926-56927	12195	0		Cumulative Demand for Monitored Data Set 14			F52	R	
DE5F-DE60	56928-56929	12196	0		Accumulator for Monitored Data Set 15			F64	R	
DE61-DE62	56930-56931	12197	0		Peak Demand for Monitored Data Set 15			F120	R	
DE63-DE64	56932-56933	12198	0		Coincident Demand for Monitored Data Set 15			F120	R	
DE65-DE67	56934-56936	12199	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DE69	56937	12200	0		Reserved			F51	R	
DE69-DE6A	56938-56939	12201	0		Cumulative Demand for Monitored Data Set 15			F52	R	
DE6B-DE6C	56940-56941	12202	0		Accumulator for Monitored Data Set 16			F64	R	
DE6D-DE6E	56942-56943	12203	0		Peak Demand for Monitored Data Set 16			F120	R	
DE6F-DE70	56944-56945	12204	0		Coincident Demand for Monitored Data Set 16			F120	R	
DE71-DE73	56946-56948	12205	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DE75	56949	12206	0		Reserved			F51	R	
DE75-DE76	56950-56951	12207	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Whole Month, Tier 4					
DE77-DE78	56952-56953	12208	0		Accumulator for Monitored Data Set 1			F64	R	
DE79-DE7A	56954-56955	12209	0		Peak Demand for Monitored Data Set 1			F120	R	
DE7B-DE7C	56956-56957	12210	0		Coincident Demand for Monitored Data Set 1			F120	R	
DE7D-DE7F	56958-56960	12211	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DE81	56961	12212	0		Reserved			F51	R	
DE81-DE82	56962-56963	12213	0		Cumulative Demand for Monitored Data Set 1			F52	R	
DE83-DE84	56964-56965	12214	0		Accumulator for Monitored Data Set 2			F64	R	
DE85-DE86	56966-56967	12215	0		Peak Demand for Monitored Data Set 2			F120	R	
DE87-DE88	56968-56969	12216	0		Coincident Demand for Monitored Data Set 2			F120	R	
DE89-DE8B	56970-56972	12217	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DE8D	56973	12218	0		Reserved			F51	R	
DE8D-DE8E	56974-56975	12219	0		Cumulative Demand for Monitored Data Set 2			F52	R	
DE8F-DE90	56976-56977	12220	0		Accumulator for Monitored Data Set 3			F64	R	
DE91-DE92	56978-56979	12221	0		Peak Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DE93-DE94	56980-56981	12222	0		Coincident Demand for Monitored Data Set 3			F120	R	
DE95-DE97	56982-56984	12223	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DE99	56985	12224	0		Reserved			F51	R	
DE99-DE9A	56986-56987	12225	0		Cumulative Demand for Monitored Data Set 3			F52	R	
DE9B-DE9C	56988-56989	12226	0		Accumulator for Monitored Data Set 4			F64	R	
DE9D-DE9E	56990-56991	12227	0		Peak Demand for Monitored Data Set 4			F120	R	
DE9F-DEA0	56992-56993	12228	0		Coincident Demand for Monitored Data Set 4			F120	R	
DEA1-DEA3	56994-56996	12229	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DEA5	56997	12230	0		Reserved			F51	R	
DEA5-DEA6	56998-56999	12231	0		Cumulative Demand for Monitored Data Set 4			F52	R	
DEA7-DEA8	57000-57001	12232	0		Accumulator for Monitored Data Set 5			F64	R	
DEA9-DEAA	57002-57003	12233	0		Peak Demand for Monitored Data Set 5			F120	R	
DEAB-DEAC	57004-57005	12234	0		Coincident Demand for Monitored Data Set 5			F120	R	
DEAD-DEAF	57006-57008	12235	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DEB1	57009	12236	0		Reserved			F51	R	
DEB1-DEB2	57010-57011	12237	0		Cumulative Demand for Monitored Data Set 5			F52	R	
DEB3-DEB4	57012-57013	12238	0		Accumulator for Monitored Data Set 6			F64	R	
DEB5-DEB6	57014-57015	12239	0		Peak Demand for Monitored Data Set 6			F120	R	
DEB7-DEB8	57016-57017	12240	0		Coincident Demand for Monitored Data Set 6			F120	R	
DEB9-DEBB	57018-57020	12241	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DEBD	57021	12242	0		Reserved			F51	R	
DEBD-DEBE	57022-57023	12243	0		Cumulative Demand for Monitored Data Set 6			F52	R	
DEBF-DEC0	57024-57025	12244	0		Accumulator for Monitored Data Set 7			F64	R	
DEC1-DEC2	57026-57027	12245	0		Peak Demand for Monitored Data Set 7			F120	R	
DEC3-DEC4	57028-57029	12246	0		Coincident Demand for Monitored Data Set 7			F120	R	
DEC5-DEC7	57030-57032	12247	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DEC9	57033	12248	0		Reserved			F51	R	
DEC9-DECA	57034-57035	12249	0		Cumulative Demand for Monitored Data Set 7			F52	R	
DECB-DECC	57036-57037	12250	0		Accumulator for Monitored Data Set 8			F64	R	
DECD-DECE	57038-57039	12251	0		Peak Demand for Monitored Data Set 8			F120	R	
DECF-DED0	57040-57041	12252	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DED1-DED3	57042-57044	12253	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DED5	57045	12254	0		Reserved			F51	R	
DED5-DED6	57046-57047	12255	0		Cumulative Demand for Monitored Data Set 8			F52	R	
DED7-DED8	57048-57049	12256	0		Accumulator for Monitored Data Set 9			F64	R	
DED9-DEDA	57050-57051	12257	0		Peak Demand for Monitored Data Set 9			F120	R	
DEDB-DEDC	57052-57053	12258	0		Coincident Demand for Monitored Data Set 9			F120	R	
DEDD-DEDF	57054-57056	12259	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DEE1	57057	12260	0		Reserved			F51	R	
DEE1-DEE2	57058-57059	12261	0		Cumulative Demand for Monitored Data Set 9			F52	R	
DEE3-DEE4	57060-57061	12262	0		Accumulator for Monitored Data Set 10			F64	R	
DEE5-DEE6	57062-57063	12263	0		Peak Demand for Monitored Data Set 10			F120	R	
DEE7-DEE8	57064-57065	12264	0		Coincident Demand for Monitored Data Set 10			F120	R	
DEE9-DEEB	57066-57068	12265	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DEED	57069	12266	0		Reserved			F51	R	
DEED-DEEE	57070-57071	12267	0		Cumulative Demand for Monitored Data Set 10			F52	R	
DEEF-DEF0	57072-57073	12268	0		Accumulator for Monitored Data Set 11			F64	R	
DEF1-DEF2	57074-57075	12269	0		Peak Demand for Monitored Data Set 11			F120	R	
DEF3-DEF4	57076-57077	12270	0		Coincident Demand for Monitored Data Set 11			F120	R	
DEF5-DEF7	57078-57080	12271	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DEF9	57081	12272	0		Reserved			F51	R	
DEF9-DEFA	57082-57083	12273	0		Cumulative Demand for Monitored Data Set 11			F52	R	
DEFB-DEFC	57084-57085	12274	0		Accumulator for Monitored Data Set 12			F64	R	
DEFD-DEFE	57086-57087	12275	0		Peak Demand for Monitored Data Set 12			F120	R	
DEFF-DF00	57088-57089	12276	0		Coincident Demand for Monitored Data Set 12			F120	R	
DF01-DF03	57090-57092	12277	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DF05	57093	12278	0		Reserved			F51	R	
DF05-DF06	57094-57095	12279	0		Cumulative Demand for Monitored Data Set 12			F52	R	
DF07-DF08	57096-57097	12280	0		Accumulator for Monitored Data Set 13			F64	R	
DF09-DF0A	57098-57099	12281	0		Peak Demand for Monitored Data Set 13			F120	R	
DF0B-DF0C	57100-57101	12282	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DF0D-DF0F	57102-57104	12283	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DF11	57105	12284	0		Reserved			F51	R	
DF11-DF12	57106-57107	12285	0		Cumulative Demand for Monitored Data Set 13			F52	R	
DF13-DF14	57108-57109	12286	0		Accumulator for Monitored Data Set 14			F64	R	
DF15-DF16	57110-57111	12287	0		Peak Demand for Monitored Data Set 14			F120	R	
DF17-DF18	57112-57113	12288	0		Coincident Demand for Monitored Data Set 14			F120	R	
DF19-DF1B	57114-57116	12289	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DF1D	57117	12290	0		Reserved			F51	R	
DF1D-DF1E	57118-57119	12291	0		Cumulative Demand for Monitored Data Set 14			F52	R	
DF1F-DF20	57120-57121	12292	0		Accumulator for Monitored Data Set 15			F64	R	
DF21-DF22	57122-57123	12293	0		Peak Demand for Monitored Data Set 15			F120	R	
DF23-DF24	57124-57125	12294	0		Coincident Demand for Monitored Data Set 15			F120	R	
DF25-DF27	57126-57128	12295	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DF29	57129	12296	0		Reserved			F51	R	
DF29-DF2A	57130-57131	12297	0		Cumulative Demand for Monitored Data Set 15			F52	R	
DF2B-DF2C	57132-57133	12298	0		Accumulator for Monitored Data Set 16			F64	R	
DF2D-DF2E	57134-57135	12299	0		Peak Demand for Monitored Data Set 16			F120	R	
DF2F-DF30	57136-57137	12300	0		Coincident Demand for Monitored Data Set 16			F120	R	
DF31-DF33	57138-57140	12301	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DF35	57141	12302	0		Reserved			F51	R	
DF35-DF36	57142-57143	12303	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Initial Season, Tier 0					
DF37-DF38	57144-57145	12304	57144		Accumulator for Monitored Data Set 1			F64	R	
DF39-DF3A	57146-57147	12305	57146		Peak Demand for Monitored Data Set 1			F120	R	
DF3B-DF3C	57148-57149	12306	57148		Coincident Demand for Monitored Data Set 1			F120	R	
DF3D-DF3F	57150-57152	12307	57150		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
DF41	57153	12308	57153		Reserved			F51	R	
DF41-DF42	57154-57155	12309	57154		Cumulative Demand for Monitored Data Set 1			F52	R	
DF43-DF44	57156-57157	12310	57156		Accumulator for Monitored Data Set 2			F64	R	
DF45-DF46	57158-57159	12311	57158		Peak Demand for Monitored Data Set 2			F120	R	
DF47-DF48	57160-57161	12312	57160		Coincident Demand for Monitored Data Set 2			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DF49-DF4B	57162-57164	12313	57162		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
DF4D	57165	12314	57165		Reserved			F51	R	
DF4D-DF4E	57166-57167	12315	57166		Cumulative Demand for Monitored Data Set 2			F52	R	
DF4F-DF50	57168-57169	12316	57168		Accumulator for Monitored Data Set 3			F64	R	
DF51-DF52	57170-57171	12317	57170		Peak Demand for Monitored Data Set 3			F120	R	
DF53-DF54	57172-57173	12318	57172		Coincident Demand for Monitored Data Set 3			F120	R	
DF55-DF57	57174-57176	12319	57174		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
DF59	57177	12320	57177		Reserved			F51	R	
DF59-DF5A	57178-57179	12321	57178		Cumulative Demand for Monitored Data Set 3			F52	R	
DF5B-DF5C	57180-57181	12322	57180		Accumulator for Monitored Data Set 4			F64	R	
DF5D-DF5E	57182-57183	12323	57182		Peak Demand for Monitored Data Set 4			F120	R	
DF5F-DF60	57184-57185	12324	57184		Coincident Demand for Monitored Data Set 4			F120	R	
DF61-DF63	57186-57188	12325	57186		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
DF65	57189	12326	57189		Reserved			F51	R	
DF65-DF66	57190-57191	12327	57190		Cumulative Demand for Monitored Data Set 4			F52	R	
DF67-DF68	57192-57193	12328	57192		Accumulator for Monitored Data Set 5			F64	R	
DF69-DF6A	57194-57195	12329	57194		Peak Demand for Monitored Data Set 5			F120	R	
DF6B-DF6C	57196-57197	12330	57196		Coincident Demand for Monitored Data Set 5			F120	R	
DF6D-DF6F	57198-57200	12331	57198		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
DF71	57201	12332	57201		Reserved			F51	R	
DF71-DF72	57202-57203	12333	57202		Cumulative Demand for Monitored Data Set 5			F52	R	
DF73-DF74	57204-57205	12334	57204		Accumulator for Monitored Data Set 6			F64	R	
DF75-DF76	57206-57207	12335	57206		Peak Demand for Monitored Data Set 6			F120	R	
DF77-DF78	57208-57209	12336	57208		Coincident Demand for Monitored Data Set 6			F120	R	
DF79-DF7B	57210-57212	12337	57210		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
DF7D	57213	12338	57213		Reserved			F51	R	
DF7D-DF7E	57214-57215	12339	57214		Cumulative Demand for Monitored Data Set 6			F52	R	
DF7F-DF80	57216-57217	12340	57216		Accumulator for Monitored Data Set 7			F64	R	
DF81-DF82	57218-57219	12341	57218		Peak Demand for Monitored Data Set 7			F120	R	
DF83-DF84	57220-57221	12342	57220		Coincident Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DF85-DF87	57222-57224	12343	57222		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
DF89	57225	12344	57225		Reserved			F51	R	
DF89-DF8A	57226-57227	12345	57226		Cumulative Demand for Monitored Data Set 7			F52	R	
DF8B-DF8C	57228-57229	12346	57228		Accumulator for Monitored Data Set 8			F64	R	
DF8D-DF8E	57230-57231	12347	57230		Peak Demand for Monitored Data Set 8			F120	R	
DF8F-DF90	57232-57233	12348	57232		Coincident Demand for Monitored Data Set 8			F120	R	
DF91-DF93	57234-57236	12349	57234		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
DF95	57237	12350	57237		Reserved			F51	R	
DF95-DF96	57238-57239	12351	57238		Cumulative Demand for Monitored Data Set 8			F52	R	
DF97-DF98	57240-57241	12352	57240		Accumulator for Monitored Data Set 9			F64	R	
DF99-DF9A	57242-57243	12353	57242		Peak Demand for Monitored Data Set 9			F120	R	
DF9B-DF9C	57244-57245	12354	57244		Coincident Demand for Monitored Data Set 9			F120	R	
DF9D-DF9F	57246-57248	12355	57246		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
DFA1	57249	12356	57249		Reserved			F51	R	
DFA1-DFA2	57250-57251	12357	57250		Cumulative Demand for Monitored Data Set 9			F52	R	
DFA3-DFA4	57252-57253	12358	57252		Accumulator for Monitored Data Set 10			F64	R	
DFA5-DFA6	57254-57255	12359	57254		Peak Demand for Monitored Data Set 10			F120	R	
DFA7-DFA8	57256-57257	12360	57256		Coincident Demand for Monitored Data Set 10			F120	R	
DFA9-DFAB	57258-57260	12361	57258		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
DFAD	57261	12362	57261		Reserved			F51	R	
DFAD-DFAE	57262-57263	12363	57262		Cumulative Demand for Monitored Data Set 10			F52	R	
DFAF-DFB0	57264-57265	12364	57264		Accumulator for Monitored Data Set 11			F64	R	
DFB1-DFB2	57266-57267	12365	57266		Peak Demand for Monitored Data Set 11			F120	R	
DFB3-DFB4	57268-57269	12366	57268		Coincident Demand for Monitored Data Set 11			F120	R	
DFB5-DFB7	57270-57272	12367	57270		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
DFB9	57273	12368	57273		Reserved			F51	R	
DFB9-DFBA	57274-57275	12369	57274		Cumulative Demand for Monitored Data Set 11			F52	R	
DFBB-DFBC	57276-57277	12370	57276		Accumulator for Monitored Data Set 12			F64	R	
DFBD-DFBE	57278-57279	12371	57278		Peak Demand for Monitored Data Set 12			F120	R	
DFBF-DFC0	57280-57281	12372	57280		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DFC1-DFC3	57282-57284	12373	57282		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
DFC5	57285	12374	57285		Reserved			F51	R	
DFC5-DFC6	57286-57287	12375	57286		Cumulative Demand for Monitored Data Set 12			F52	R	
DFC7-DFC8	57288-57289	12376	57288		Accumulator for Monitored Data Set 13			F64	R	
DFC9-DFCA	57290-57291	12377	57290		Peak Demand for Monitored Data Set 13			F120	R	
DFCB-DFCC	57292-57293	12378	57292		Coincident Demand for Monitored Data Set 13			F120	R	
DFCD-DFCF	57294-57296	12379	57294		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
DFD1	57297	12380	57297		Reserved			F51	R	
DFD1-DFD2	57298-57299	12381	57298		Cumulative Demand for Monitored Data Set 13			F52	R	
DFD3-DFD4	57300-57301	12382	57300		Accumulator for Monitored Data Set 14			F64	R	
DFD5-DFD6	57302-57303	12383	57302		Peak Demand for Monitored Data Set 14			F120	R	
DFD7-DFD8	57304-57305	12384	57304		Coincident Demand for Monitored Data Set 14			F120	R	
DFD9-DFDB	57306-57308	12385	57306		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
DFDD	57309	12386	57309		Reserved			F51	R	
DFDD-DFDE	57310-57311	12387	57310		Cumulative Demand for Monitored Data Set 14			F52	R	
DFDF-DFE0	57312-57313	12388	57312		Accumulator for Monitored Data Set 15			F64	R	
DFE1-DFE2	57314-57315	12389	57314		Peak Demand for Monitored Data Set 15			F120	R	
DFE3-DFE4	57316-57317	12390	57316		Coincident Demand for Monitored Data Set 15			F120	R	
DFE5-DFE7	57318-57320	12391	57318		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
DFE9	57321	12392	57321		Reserved			F51	R	
DFE9-DFEA	57322-57323	12393	57322		Cumulative Demand for Monitored Data Set 15			F52	R	
DFEB-DFEC	57324-57325	12394	57324		Accumulator for Monitored Data Set 16			F64	R	
DFED-DFEE	57326-57327	12395	57326		Peak Demand for Monitored Data Set 16			F120	R	
DFEF-DFF0	57328-57329	12396	57328		Coincident Demand for Monitored Data Set 16			F120	R	
DFF1-DFF3	57330-57332	12397	57330		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
DFF5	57333	12398	57333		Reserved			F51	R	
DFF5-DFF6	57334-57335	12399	57334		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Initial Season, Tier 1					
DFF7-DFF8	57336-57337	12400	0		Accumulator for Monitored Data Set 1			F64	R	
DFF9-DFFA	57338-57339	12401	0		Peak Demand for Monitored Data Set 1			F120	R	
DFFB-DFFC	57340-57341	12402	0		Coincident Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
DFFD-DFFF	57342-57344	12403	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E001	57345	12404	0		Reserved			F51	R	
E001-E002	57346-57347	12405	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E003-E004	57348-57349	12406	0		Accumulator for Monitored Data Set 2			F64	R	
E005-E006	57350-57351	12407	0		Peak Demand for Monitored Data Set 2			F120	R	
E007-E008	57352-57353	12408	0		Coincident Demand for Monitored Data Set 2			F120	R	
E009-E00B	57354-57356	12409	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E00D	57357	12410	0		Reserved			F51	R	
E00D-E00E	57358-57359	12411	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E00F-E010	57360-57361	12412	0		Accumulator for Monitored Data Set 3			F64	R	
E011-E012	57362-57363	12413	0		Peak Demand for Monitored Data Set 3			F120	R	
E013-E014	57364-57365	12414	0		Coincident Demand for Monitored Data Set 3			F120	R	
E015-E017	57366-57368	12415	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E019	57369	12416	0		Reserved			F51	R	
E019-E01A	57370-57371	12417	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E01B-E01C	57372-57373	12418	0		Accumulator for Monitored Data Set 4			F64	R	
E01D-E01E	57374-57375	12419	0		Peak Demand for Monitored Data Set 4			F120	R	
E01F-E020	57376-57377	12420	0		Coincident Demand for Monitored Data Set 4			F120	R	
E021-E023	57378-57380	12421	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E025	57381	12422	0		Reserved			F51	R	
E025-E026	57382-57383	12423	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E027-E028	57384-57385	12424	0		Accumulator for Monitored Data Set 5			F64	R	
E029-E02A	57386-57387	12425	0		Peak Demand for Monitored Data Set 5			F120	R	
E02B-E02C	57388-57389	12426	0		Coincident Demand for Monitored Data Set 5			F120	R	
E02D-E02F	57390-57392	12427	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E031	57393	12428	0		Reserved			F51	R	
E031-E032	57394-57395	12429	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E033-E034	57396-57397	12430	0		Accumulator for Monitored Data Set 6			F64	R	
E035-E036	57398-57399	12431	0		Peak Demand for Monitored Data Set 6			F120	R	
E037-E038	57400-57401	12432	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E039-E03B	57402-57404	12433	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E03D	57405	12434	0		Reserved			F51	R	
E03D-E03E	57406-57407	12435	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E03F-E040	57408-57409	12436	0		Accumulator for Monitored Data Set 7			F64	R	
E041-E042	57410-57411	12437	0		Peak Demand for Monitored Data Set 7			F120	R	
E043-E044	57412-57413	12438	0		Coincident Demand for Monitored Data Set 7			F120	R	
E045-E047	57414-57416	12439	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E049	57417	12440	0		Reserved			F51	R	
E049-E04A	57418-57419	12441	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E04B-E04C	57420-57421	12442	0		Accumulator for Monitored Data Set 8			F64	R	
E04D-E04E	57422-57423	12443	0		Peak Demand for Monitored Data Set 8			F120	R	
E04F-E050	57424-57425	12444	0		Coincident Demand for Monitored Data Set 8			F120	R	
E051-E053	57426-57428	12445	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E055	57429	12446	0		Reserved			F51	R	
E055-E056	57430-57431	12447	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E057-E058	57432-57433	12448	0		Accumulator for Monitored Data Set 9			F64	R	
E059-E05A	57434-57435	12449	0		Peak Demand for Monitored Data Set 9			F120	R	
E05B-E05C	57436-57437	12450	0		Coincident Demand for Monitored Data Set 9			F120	R	
E05D-E05F	57438-57440	12451	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E061	57441	12452	0		Reserved			F51	R	
E061-E062	57442-57443	12453	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E063-E064	57444-57445	12454	0		Accumulator for Monitored Data Set 10			F64	R	
E065-E066	57446-57447	12455	0		Peak Demand for Monitored Data Set 10			F120	R	
E067-E068	57448-57449	12456	0		Coincident Demand for Monitored Data Set 10			F120	R	
E069-E06B	57450-57452	12457	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E06D	57453	12458	0		Reserved			F51	R	
E06D-E06E	57454-57455	12459	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E06F-E070	57456-57457	12460	0		Accumulator for Monitored Data Set 11			F64	R	
E071-E072	57458-57459	12461	0		Peak Demand for Monitored Data Set 11			F120	R	
E073-E074	57460-57461	12462	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E075-E077	57462-57464	12463	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E079	57465	12464	0		Reserved			F51	R	
E079-E07A	57466-57467	12465	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E07B-E07C	57468-57469	12466	0		Accumulator for Monitored Data Set 12			F64	R	
E07D-E07E	57470-57471	12467	0		Peak Demand for Monitored Data Set 12			F120	R	
E07F-E080	57472-57473	12468	0		Coincident Demand for Monitored Data Set 12			F120	R	
E081-E083	57474-57476	12469	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E085	57477	12470	0		Reserved			F51	R	
E085-E086	57478-57479	12471	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E087-E088	57480-57481	12472	0		Accumulator for Monitored Data Set 13			F64	R	
E089-E08A	57482-57483	12473	0		Peak Demand for Monitored Data Set 13			F120	R	
E08B-E08C	57484-57485	12474	0		Coincident Demand for Monitored Data Set 13			F120	R	
E08D-E08F	57486-57488	12475	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E091	57489	12476	0		Reserved			F51	R	
E091-E092	57490-57491	12477	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E093-E094	57492-57493	12478	0		Accumulator for Monitored Data Set 14			F64	R	
E095-E096	57494-57495	12479	0		Peak Demand for Monitored Data Set 14			F120	R	
E097-E098	57496-57497	12480	0		Coincident Demand for Monitored Data Set 14			F120	R	
E099-E09B	57498-57500	12481	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E09D	57501	12482	0		Reserved			F51	R	
E09D-E09E	57502-57503	12483	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E09F-E0A0	57504-57505	12484	0		Accumulator for Monitored Data Set 15			F64	R	
E0A1-E0A2	57506-57507	12485	0		Peak Demand for Monitored Data Set 15			F120	R	
E0A3-E0A4	57508-57509	12486	0		Coincident Demand for Monitored Data Set 15			F120	R	
E0A5-E0A7	57510-57512	12487	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E0A9	57513	12488	0		Reserved			F51	R	
E0A9-E0AA	57514-57515	12489	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E0AB-E0AC	57516-57517	12490	0		Accumulator for Monitored Data Set 16			F64	R	
E0AD-E0AE	57518-57519	12491	0		Peak Demand for Monitored Data Set 16			F120	R	
E0AF-E0B0	57520-57521	12492	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E0B1-E0B3	57522-57524	12493	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E0B5	57525	12494	0		Reserved			F51	R	
E0B5-E0B6	57526-57527	12495	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Initial Season, Tier 2					
E0B7-E0B8	57528-57529	12496	0		Accumulator for Monitored Data Set 1			F64	R	
E0B9-E0BA	57530-57531	12497	0		Peak Demand for Monitored Data Set 1			F120	R	
E0BB-E0BC	57532-57533	12498	0		Coincident Demand for Monitored Data Set 1			F120	R	
E0BD-E0BF	57534-57536	12499	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E0C1	57537	12500	0		Reserved			F51	R	
E0C1-E0C2	57538-57539	12501	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E0C3-E0C4	57540-57541	12502	0		Accumulator for Monitored Data Set 2			F64	R	
E0C5-E0C6	57542-57543	12503	0		Peak Demand for Monitored Data Set 2			F120	R	
E0C7-E0C8	57544-57545	12504	0		Coincident Demand for Monitored Data Set 2			F120	R	
E0C9-E0CB	57546-57548	12505	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E0CD	57549	12506	0		Reserved			F51	R	
E0CD-E0CE	57550-57551	12507	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E0CF-E0D0	57552-57553	12508	0		Accumulator for Monitored Data Set 3			F64	R	
E0D1-E0D2	57554-57555	12509	0		Peak Demand for Monitored Data Set 3			F120	R	
E0D3-E0D4	57556-57557	12510	0		Coincident Demand for Monitored Data Set 3			F120	R	
E0D5-E0D7	57558-57560	12511	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E0D9	57561	12512	0		Reserved			F51	R	
E0D9-E0DA	57562-57563	12513	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E0DB-E0DC	57564-57565	12514	0		Accumulator for Monitored Data Set 4			F64	R	
E0DD-E0DE	57566-57567	12515	0		Peak Demand for Monitored Data Set 4			F120	R	
E0DF-E0E0	57568-57569	12516	0		Coincident Demand for Monitored Data Set 4			F120	R	
E0E1-E0E3	57570-57572	12517	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E0E5	57573	12518	0		Reserved			F51	R	
E0E5-E0E6	57574-57575	12519	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E0E7-E0E8	57576-57577	12520	0		Accumulator for Monitored Data Set 5			F64	R	
E0E9-E0EA	57578-57579	12521	0		Peak Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E0EB-E0EC	57580-57581	12522	0		Coincident Demand for Monitored Data Set 5			F120	R	
E0ED-E0EF	57582-57584	12523	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E0F1	57585	12524	0		Reserved			F51	R	
E0F1-E0F2	57586-57587	12525	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E0F3-E0F4	57588-57589	12526	0		Accumulator for Monitored Data Set 6			F64	R	
E0F5-E0F6	57590-57591	12527	0		Peak Demand for Monitored Data Set 6			F120	R	
E0F7-E0F8	57592-57593	12528	0		Coincident Demand for Monitored Data Set 6			F120	R	
E0F9-E0FB	57594-57596	12529	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E0FD	57597	12530	0		Reserved			F51	R	
E0FD-E0FE	57598-57599	12531	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E0FF-E100	57600-57601	12532	0		Accumulator for Monitored Data Set 7			F64	R	
E101-E102	57602-57603	12533	0		Peak Demand for Monitored Data Set 7			F120	R	
E103-E104	57604-57605	12534	0		Coincident Demand for Monitored Data Set 7			F120	R	
E105-E107	57606-57608	12535	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E109	57609	12536	0		Reserved			F51	R	
E109-E10A	57610-57611	12537	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E10B-E10C	57612-57613	12538	0		Accumulator for Monitored Data Set 8			F64	R	
E10D-E10E	57614-57615	12539	0		Peak Demand for Monitored Data Set 8			F120	R	
E10F-E110	57616-57617	12540	0		Coincident Demand for Monitored Data Set 8			F120	R	
E111-E113	57618-57620	12541	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E115	57621	12542	0		Reserved			F51	R	
E115-E116	57622-57623	12543	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E117-E118	57624-57625	12544	0		Accumulator for Monitored Data Set 9			F64	R	
E119-E11A	57626-57627	12545	0		Peak Demand for Monitored Data Set 9			F120	R	
E11B-E11C	57628-57629	12546	0		Coincident Demand for Monitored Data Set 9			F120	R	
E11D-E11F	57630-57632	12547	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E121	57633	12548	0		Reserved			F51	R	
E121-E122	57634-57635	12549	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E123-E124	57636-57637	12550	0		Accumulator for Monitored Data Set 10			F64	R	
E125-E126	57638-57639	12551	0		Peak Demand for Monitored Data Set 10			F120	R	
E127-E128	57640-57641	12552	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E129-E12B	57642-57644	12553	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E12D	57645	12554	0		Reserved			F51	R	
E12D-E12E	57646-57647	12555	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E12F-E130	57648-57649	12556	0		Accumulator for Monitored Data Set 11			F64	R	
E131-E132	57650-57651	12557	0		Peak Demand for Monitored Data Set 11			F120	R	
E133-E134	57652-57653	12558	0		Coincident Demand for Monitored Data Set 11			F120	R	
E135-E137	57654-57656	12559	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E139	57657	12560	0		Reserved			F51	R	
E139-E13A	57658-57659	12561	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E13B-E13C	57660-57661	12562	0		Accumulator for Monitored Data Set 12			F64	R	
E13D-E13E	57662-57663	12563	0		Peak Demand for Monitored Data Set 12			F120	R	
E13F-E140	57664-57665	12564	0		Coincident Demand for Monitored Data Set 12			F120	R	
E141-E143	57666-57668	12565	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E145	57669	12566	0		Reserved			F51	R	
E145-E146	57670-57671	12567	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E147-E148	57672-57673	12568	0		Accumulator for Monitored Data Set 13			F64	R	
E149-E14A	57674-57675	12569	0		Peak Demand for Monitored Data Set 13			F120	R	
E14B-E14C	57676-57677	12570	0		Coincident Demand for Monitored Data Set 13			F120	R	
E14D-E14F	57678-57680	12571	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E151	57681	12572	0		Reserved			F51	R	
E151-E152	57682-57683	12573	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E153-E154	57684-57685	12574	0		Accumulator for Monitored Data Set 14			F64	R	
E155-E156	57686-57687	12575	0		Peak Demand for Monitored Data Set 14			F120	R	
E157-E158	57688-57689	12576	0		Coincident Demand for Monitored Data Set 14			F120	R	
E159-E15B	57690-57692	12577	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E15D	57693	12578	0		Reserved			F51	R	
E15D-E15E	57694-57695	12579	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E15F-E160	57696-57697	12580	0		Accumulator for Monitored Data Set 15			F64	R	
E161-E162	57698-57699	12581	0		Peak Demand for Monitored Data Set 15			F120	R	
E163-E164	57700-57701	12582	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E165-E167	57702-57704	12583	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E169	57705	12584	0		Reserved			F51	R	
E169-E16A	57706-57707	12585	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E16B-E16C	57708-57709	12586	0		Accumulator for Monitored Data Set 16			F64	R	
E16D-E16E	57710-57711	12587	0		Peak Demand for Monitored Data Set 16			F120	R	
E16F-E170	57712-57713	12588	0		Coincident Demand for Monitored Data Set 16			F120	R	
E171-E173	57714-57716	12589	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E175	57717	12590	0		Reserved			F51	R	
E175-E176	57718-57719	12591	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Initial Season, Tier 3					
E177-E178	57720-57721	12592	0		Accumulator for Monitored Data Set 1			F64	R	
E179-E17A	57722-57723	12593	0		Peak Demand for Monitored Data Set 1			F120	R	
E17B-E17C	57724-57725	12594	0		Coincident Demand for Monitored Data Set 1			F120	R	
E17D-E17F	57726-57728	12595	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E181	57729	12596	0		Reserved			F51	R	
E181-E182	57730-57731	12597	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E183-E184	57732-57733	12598	0		Accumulator for Monitored Data Set 2			F64	R	
E185-E186	57734-57735	12599	0		Peak Demand for Monitored Data Set 2			F120	R	
E187-E188	57736-57737	12600	0		Coincident Demand for Monitored Data Set 2			F120	R	
E189-E18B	57738-57740	12601	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E18D	57741	12602	0		Reserved			F51	R	
E18D-E18E	57742-57743	12603	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E18F-E190	57744-57745	12604	0		Accumulator for Monitored Data Set 3			F64	R	
E191-E192	57746-57747	12605	0		Peak Demand for Monitored Data Set 3			F120	R	
E193-E194	57748-57749	12606	0		Coincident Demand for Monitored Data Set 3			F120	R	
E195-E197	57750-57752	12607	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E199	57753	12608	0		Reserved			F51	R	
E199-E19A	57754-57755	12609	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E19B-E19C	57756-57757	12610	0		Accumulator for Monitored Data Set 4			F64	R	
E19D-E19E	57758-57759	12611	0		Peak Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E19F-E1A0	57760-57761	12612	0		Coincident Demand for Monitored Data Set 4			F120	R	
E1A1-E1A3	57762-57764	12613	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E1A5	57765	12614	0		Reserved			F51	R	
E1A5-E1A6	57766-57767	12615	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E1A7-E1A8	57768-57769	12616	0		Accumulator for Monitored Data Set 5			F64	R	
E1A9-E1AA	57770-57771	12617	0		Peak Demand for Monitored Data Set 5			F120	R	
E1AB-E1AC	57772-57773	12618	0		Coincident Demand for Monitored Data Set 5			F120	R	
E1AD-E1AF	57774-57776	12619	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E1B1	57777	12620	0		Reserved			F51	R	
E1B1-E1B2	57778-57779	12621	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E1B3-E1B4	57780-57781	12622	0		Accumulator for Monitored Data Set 6			F64	R	
E1B5-E1B6	57782-57783	12623	0		Peak Demand for Monitored Data Set 6			F120	R	
E1B7-E1B8	57784-57785	12624	0		Coincident Demand for Monitored Data Set 6			F120	R	
E1B9-E1BB	57786-57788	12625	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E1BD	57789	12626	0		Reserved			F51	R	
E1BD-E1BE	57790-57791	12627	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E1BF-E1C0	57792-57793	12628	0		Accumulator for Monitored Data Set 7			F64	R	
E1C1-E1C2	57794-57795	12629	0		Peak Demand for Monitored Data Set 7			F120	R	
E1C3-E1C4	57796-57797	12630	0		Coincident Demand for Monitored Data Set 7			F120	R	
E1C5-E1C7	57798-57800	12631	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E1C9	57801	12632	0		Reserved			F51	R	
E1C9-E1CA	57802-57803	12633	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E1CB-E1CC	57804-57805	12634	0		Accumulator for Monitored Data Set 8			F64	R	
E1CD-E1CE	57806-57807	12635	0		Peak Demand for Monitored Data Set 8			F120	R	
E1CF-E1D0	57808-57809	12636	0		Coincident Demand for Monitored Data Set 8			F120	R	
E1D1-E1D3	57810-57812	12637	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E1D5	57813	12638	0		Reserved			F51	R	
E1D5-E1D6	57814-57815	12639	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E1D7-E1D8	57816-57817	12640	0		Accumulator for Monitored Data Set 9			F64	R	
E1D9-E1DA	57818-57819	12641	0		Peak Demand for Monitored Data Set 9			F120	R	
E1DB-E1DC	57820-57821	12642	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E1DD-E1DF	57822-57824	12643	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E1E1	57825	12644	0		Reserved			F51	R	
E1E1-E1E2	57826-57827	12645	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E1E3-E1E4	57828-57829	12646	0		Accumulator for Monitored Data Set 10			F64	R	
E1E5-E1E6	57830-57831	12647	0		Peak Demand for Monitored Data Set 10			F120	R	
E1E7-E1E8	57832-57833	12648	0		Coincident Demand for Monitored Data Set 10			F120	R	
E1E9-E1EB	57834-57836	12649	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E1ED	57837	12650	0		Reserved			F51	R	
E1ED-E1EE	57838-57839	12651	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E1EF-E1F0	57840-57841	12652	0		Accumulator for Monitored Data Set 11			F64	R	
E1F1-E1F2	57842-57843	12653	0		Peak Demand for Monitored Data Set 11			F120	R	
E1F3-E1F4	57844-57845	12654	0		Coincident Demand for Monitored Data Set 11			F120	R	
E1F5-E1F7	57846-57848	12655	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E1F9	57849	12656	0		Reserved			F51	R	
E1F9-E1FA	57850-57851	12657	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E1FB-E1FC	57852-57853	12658	0		Accumulator for Monitored Data Set 12			F64	R	
E1FD-E1FE	57854-57855	12659	0		Peak Demand for Monitored Data Set 12			F120	R	
E1FF-E200	57856-57857	12660	0		Coincident Demand for Monitored Data Set 12			F120	R	
E201-E203	57858-57860	12661	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E205	57861	12662	0		Reserved			F51	R	
E205-E206	57862-57863	12663	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E207-E208	57864-57865	12664	0		Accumulator for Monitored Data Set 13			F64	R	
E209-E20A	57866-57867	12665	0		Peak Demand for Monitored Data Set 13			F120	R	
E20B-E20C	57868-57869	12666	0		Coincident Demand for Monitored Data Set 13			F120	R	
E20D-E20F	57870-57872	12667	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E211	57873	12668	0		Reserved			F51	R	
E211-E212	57874-57875	12669	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E213-E214	57876-57877	12670	0		Accumulator for Monitored Data Set 14			F64	R	
E215-E216	57878-57879	12671	0		Peak Demand for Monitored Data Set 14			F120	R	
E217-E218	57880-57881	12672	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E219-E21B	57882-57884	12673	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E21D	57885	12674	0		Reserved			F51	R	
E21D-E21E	57886-57887	12675	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E21F-E220	57888-57889	12676	0		Accumulator for Monitored Data Set 15			F64	R	
E221-E222	57890-57891	12677	0		Peak Demand for Monitored Data Set 15			F120	R	
E223-E224	57892-57893	12678	0		Coincident Demand for Monitored Data Set 15			F120	R	
E225-E227	57894-57896	12679	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E229	57897	12680	0		Reserved			F51	R	
E229-E22A	57898-57899	12681	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E22B-E22C	57900-57901	12682	0		Accumulator for Monitored Data Set 16			F64	R	
E22D-E22E	57902-57903	12683	0		Peak Demand for Monitored Data Set 16			F120	R	
E22F-E230	57904-57905	12684	0		Coincident Demand for Monitored Data Set 16			F120	R	
E231-E233	57906-57908	12685	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E235	57909	12686	0		Reserved			F51	R	
E235-E236	57910-57911	12687	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Initial Season, Tier 4					
E237-E238	57912-57913	12688	0		Accumulator for Monitored Data Set 1			F64	R	
E239-E23A	57914-57915	12689	0		Peak Demand for Monitored Data Set 1			F120	R	
E23B-E23C	57916-57917	12690	0		Coincident Demand for Monitored Data Set 1			F120	R	
E23D-E23F	57918-57920	12691	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E241	57921	12692	0		Reserved			F51	R	
E241-E242	57922-57923	12693	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E243-E244	57924-57925	12694	0		Accumulator for Monitored Data Set 2			F64	R	
E245-E246	57926-57927	12695	0		Peak Demand for Monitored Data Set 2			F120	R	
E247-E248	57928-57929	12696	0		Coincident Demand for Monitored Data Set 2			F120	R	
E249-E24B	57930-57932	12697	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E24D	57933	12698	0		Reserved			F51	R	
E24D-E24E	57934-57935	12699	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E24F-E250	57936-57937	12700	0		Accumulator for Monitored Data Set 3			F64	R	
E251-E252	57938-57939	12701	0		Peak Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E253-E254	57940-57941	12702	0		Coincident Demand for Monitored Data Set 3			F120	R	
E255-E257	57942-57944	12703	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E259	57945	12704	0		Reserved			F51	R	
E259-E25A	57946-57947	12705	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E25B-E25C	57948-57949	12706	0		Accumulator for Monitored Data Set 4			F64	R	
E25D-E25E	57950-57951	12707	0		Peak Demand for Monitored Data Set 4			F120	R	
E25F-E260	57952-57953	12708	0		Coincident Demand for Monitored Data Set 4			F120	R	
E261-E263	57954-57956	12709	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E265	57957	12710	0		Reserved			F51	R	
E265-E266	57958-57959	12711	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E267-E268	57960-57961	12712	0		Accumulator for Monitored Data Set 5			F64	R	
E269-E26A	57962-57963	12713	0		Peak Demand for Monitored Data Set 5			F120	R	
E26B-E26C	57964-57965	12714	0		Coincident Demand for Monitored Data Set 5			F120	R	
E26D-E26F	57966-57968	12715	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E271	57969	12716	0		Reserved			F51	R	
E271-E272	57970-57971	12717	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E273-E274	57972-57973	12718	0		Accumulator for Monitored Data Set 6			F64	R	
E275-E276	57974-57975	12719	0		Peak Demand for Monitored Data Set 6			F120	R	
E277-E278	57976-57977	12720	0		Coincident Demand for Monitored Data Set 6			F120	R	
E279-E27B	57978-57980	12721	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E27D	57981	12722	0		Reserved			F51	R	
E27D-E27E	57982-57983	12723	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E27F-E280	57984-57985	12724	0		Accumulator for Monitored Data Set 7			F64	R	
E281-E282	57986-57987	12725	0		Peak Demand for Monitored Data Set 7			F120	R	
E283-E284	57988-57989	12726	0		Coincident Demand for Monitored Data Set 7			F120	R	
E285-E287	57990-57992	12727	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E289	57993	12728	0		Reserved			F51	R	
E289-E28A	57994-57995	12729	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E28B-E28C	57996-57997	12730	0		Accumulator for Monitored Data Set 8			F64	R	
E28D-E28E	57998-57999	12731	0		Peak Demand for Monitored Data Set 8			F120	R	
E28F-E290	58000-58001	12732	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E291-E293	58002-58004	12733	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E295	58005	12734	0		Reserved			F51	R	
E295-E296	58006-58007	12735	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E297-E298	58008-58009	12736	0		Accumulator for Monitored Data Set 9			F64	R	
E299-E29A	58010-58011	12737	0		Peak Demand for Monitored Data Set 9			F120	R	
E29B-E29C	58012-58013	12738	0		Coincident Demand for Monitored Data Set 9			F120	R	
E29D-E29F	58014-58016	12739	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E2A1	58017	12740	0		Reserved			F51	R	
E2A1-E2A2	58018-58019	12741	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E2A3-E2A4	58020-58021	12742	0		Accumulator for Monitored Data Set 10			F64	R	
E2A5-E2A6	58022-58023	12743	0		Peak Demand for Monitored Data Set 10			F120	R	
E2A7-E2A8	58024-58025	12744	0		Coincident Demand for Monitored Data Set 10			F120	R	
E2A9-E2AB	58026-58028	12745	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E2AD	58029	12746	0		Reserved			F51	R	
E2AD-E2AE	58030-58031	12747	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E2AF-E2B0	58032-58033	12748	0		Accumulator for Monitored Data Set 11			F64	R	
E2B1-E2B2	58034-58035	12749	0		Peak Demand for Monitored Data Set 11			F120	R	
E2B3-E2B4	58036-58037	12750	0		Coincident Demand for Monitored Data Set 11			F120	R	
E2B5-E2B7	58038-58040	12751	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E2B9	58041	12752	0		Reserved			F51	R	
E2B9-E2BA	58042-58043	12753	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E2BB-E2BC	58044-58045	12754	0		Accumulator for Monitored Data Set 12			F64	R	
E2BD-E2BE	58046-58047	12755	0		Peak Demand for Monitored Data Set 12			F120	R	
E2BF-E2C0	58048-58049	12756	0		Coincident Demand for Monitored Data Set 12			F120	R	
E2C1-E2C3	58050-58052	12757	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E2C5	58053	12758	0		Reserved			F51	R	
E2C5-E2C6	58054-58055	12759	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E2C7-E2C8	58056-58057	12760	0		Accumulator for Monitored Data Set 13			F64	R	
E2C9-E2CA	58058-58059	12761	0		Peak Demand for Monitored Data Set 13			F120	R	
E2CB-E2CC	58060-58061	12762	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E2CD-E2CF	58062-58064	12763	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E2D1	58065	12764	0		Reserved			F51	R	
E2D1-E2D2	58066-58067	12765	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E2D3-E2D4	58068-58069	12766	0		Accumulator for Monitored Data Set 14			F64	R	
E2D5-E2D6	58070-58071	12767	0		Peak Demand for Monitored Data Set 14			F120	R	
E2D7-E2D8	58072-58073	12768	0		Coincident Demand for Monitored Data Set 14			F120	R	
E2D9-E2DB	58074-58076	12769	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E2DD	58077	12770	0		Reserved			F51	R	
E2DD-E2DE	58078-58079	12771	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E2DF-E2E0	58080-58081	12772	0		Accumulator for Monitored Data Set 15			F64	R	
E2E1-E2E2	58082-58083	12773	0		Peak Demand for Monitored Data Set 15			F120	R	
E2E3-E2E4	58084-58085	12774	0		Coincident Demand for Monitored Data Set 15			F120	R	
E2E5-E2E7	58086-58088	12775	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E2E9	58089	12776	0		Reserved			F51	R	
E2E9-E2EA	58090-58091	12777	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E2EB-E2EC	58092-58093	12778	0		Accumulator for Monitored Data Set 16			F64	R	
E2ED-E2EE	58094-58095	12779	0		Peak Demand for Monitored Data Set 16			F120	R	
E2EF-E2F0	58096-58097	12780	0		Coincident Demand for Monitored Data Set 16			F120	R	
E2F1-E2F3	58098-58100	12781	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E2F5	58101	12782	0		Reserved			F51	R	
E2F5-E2F6	58102-58103	12783	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Final Season, Tier 0					
E2F7-E2F8	58104-58105	12784	0		Accumulator for Monitored Data Set 1			F64	R	
E2F9-E2FA	58106-58107	12785	0		Peak Demand for Monitored Data Set 1			F120	R	
E2FB-E2FC	58108-58109	12786	0		Coincident Demand for Monitored Data Set 1			F120	R	
E2FD-E2FF	58110-58112	12787	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E301	58113	12788	0		Reserved			F51	R	
E301-E302	58114-58115	12789	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E303-E304	58116-58117	12790	0		Accumulator for Monitored Data Set 2			F64	R	
E305-E306	58118-58119	12791	0		Peak Demand for Monitored Data Set 2			F120	R	
E307-E308	58120-58121	12792	0		Coincident Demand for Monitored Data Set 2			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E309-E30B	58122-58124	12793	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E30D	58125	12794	0		Reserved			F51	R	
E30D-E30E	58126-58127	12795	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E30F-E310	58128-58129	12796	0		Accumulator for Monitored Data Set 3			F64	R	
E311-E312	58130-58131	12797	0		Peak Demand for Monitored Data Set 3			F120	R	
E313-E314	58132-58133	12798	0		Coincident Demand for Monitored Data Set 3			F120	R	
E315-E317	58134-58136	12799	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E319	58137	12800	0		Reserved			F51	R	
E319-E31A	58138-58139	12801	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E31B-E31C	58140-58141	12802	0		Accumulator for Monitored Data Set 4			F64	R	
E31D-E31E	58142-58143	12803	0		Peak Demand for Monitored Data Set 4			F120	R	
E31F-E320	58144-58145	12804	0		Coincident Demand for Monitored Data Set 4			F120	R	
E321-E323	58146-58148	12805	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E325	58149	12806	0		Reserved			F51	R	
E325-E326	58150-58151	12807	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E327-E328	58152-58153	12808	0		Accumulator for Monitored Data Set 5			F64	R	
E329-E32A	58154-58155	12809	0		Peak Demand for Monitored Data Set 5			F120	R	
E32B-E32C	58156-58157	12810	0		Coincident Demand for Monitored Data Set 5			F120	R	
E32D-E32F	58158-58160	12811	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E331	58161	12812	0		Reserved			F51	R	
E331-E332	58162-58163	12813	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E333-E334	58164-58165	12814	0		Accumulator for Monitored Data Set 6			F64	R	
E335-E336	58166-58167	12815	0		Peak Demand for Monitored Data Set 6			F120	R	
E337-E338	58168-58169	12816	0		Coincident Demand for Monitored Data Set 6			F120	R	
E339-E33B	58170-58172	12817	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E33D	58173	12818	0		Reserved			F51	R	
E33D-E33E	58174-58175	12819	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E33F-E340	58176-58177	12820	0		Accumulator for Monitored Data Set 7			F64	R	
E341-E342	58178-58179	12821	0		Peak Demand for Monitored Data Set 7			F120	R	
E343-E344	58180-58181	12822	0		Coincident Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E345-E347	58182-58184	12823	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E349	58185	12824	0		Reserved			F51	R	
E349-E34A	58186-58187	12825	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E34B-E34C	58188-58189	12826	0		Accumulator for Monitored Data Set 8			F64	R	
E34D-E34E	58190-58191	12827	0		Peak Demand for Monitored Data Set 8			F120	R	
E34F-E350	58192-58193	12828	0		Coincident Demand for Monitored Data Set 8			F120	R	
E351-E353	58194-58196	12829	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E355	58197	12830	0		Reserved			F51	R	
E355-E356	58198-58199	12831	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E357-E358	58200-58201	12832	0		Accumulator for Monitored Data Set 9			F64	R	
E359-E35A	58202-58203	12833	0		Peak Demand for Monitored Data Set 9			F120	R	
E35B-E35C	58204-58205	12834	0		Coincident Demand for Monitored Data Set 9			F120	R	
E35D-E35F	58206-58208	12835	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E361	58209	12836	0		Reserved			F51	R	
E361-E362	58210-58211	12837	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E363-E364	58212-58213	12838	0		Accumulator for Monitored Data Set 10			F64	R	
E365-E366	58214-58215	12839	0		Peak Demand for Monitored Data Set 10			F120	R	
E367-E368	58216-58217	12840	0		Coincident Demand for Monitored Data Set 10			F120	R	
E369-E36B	58218-58220	12841	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E36D	58221	12842	0		Reserved			F51	R	
E36D-E36E	58222-58223	12843	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E36F-E370	58224-58225	12844	0		Accumulator for Monitored Data Set 11			F64	R	
E371-E372	58226-58227	12845	0		Peak Demand for Monitored Data Set 11			F120	R	
E373-E374	58228-58229	12846	0		Coincident Demand for Monitored Data Set 11			F120	R	
E375-E377	58230-58232	12847	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E379	58233	12848	0		Reserved			F51	R	
E379-E37A	58234-58235	12849	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E37B-E37C	58236-58237	12850	0		Accumulator for Monitored Data Set 12			F64	R	
E37D-E37E	58238-58239	12851	0		Peak Demand for Monitored Data Set 12			F120	R	
E37F-E380	58240-58241	12852	0		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E381-E383	58242-58244	12853	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E385	58245	12854	0		Reserved			F51	R	
E385-E386	58246-58247	12855	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E387-E388	58248-58249	12856	0		Accumulator for Monitored Data Set 13			F64	R	
E389-E38A	58250-58251	12857	0		Peak Demand for Monitored Data Set 13			F120	R	
E38B-E38C	58252-58253	12858	0		Coincident Demand for Monitored Data Set 13			F120	R	
E38D-E38F	58254-58256	12859	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E391	58257	12860	0		Reserved			F51	R	
E391-E392	58258-58259	12861	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E393-E394	58260-58261	12862	0		Accumulator for Monitored Data Set 14			F64	R	
E395-E396	58262-58263	12863	0		Peak Demand for Monitored Data Set 14			F120	R	
E397-E398	58264-58265	12864	0		Coincident Demand for Monitored Data Set 14			F120	R	
E399-E39B	58266-58268	12865	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E39D	58269	12866	0		Reserved			F51	R	
E39D-E39E	58270-58271	12867	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E39F-E3A0	58272-58273	12868	0		Accumulator for Monitored Data Set 15			F64	R	
E3A1-E3A2	58274-58275	12869	0		Peak Demand for Monitored Data Set 15			F120	R	
E3A3-E3A4	58276-58277	12870	0		Coincident Demand for Monitored Data Set 15			F120	R	
E3A5-E3A7	58278-58280	12871	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E3A9	58281	12872	0		Reserved			F51	R	
E3A9-E3AA	58282-58283	12873	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E3AB-E3AC	58284-58285	12874	0		Accumulator for Monitored Data Set 16			F64	R	
E3AD-E3AE	58286-58287	12875	0		Peak Demand for Monitored Data Set 16			F120	R	
E3AF-E3B0	58288-58289	12876	0		Coincident Demand for Monitored Data Set 16			F120	R	
E3B1-E3B3	58290-58292	12877	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E3B5	58293	12878	0		Reserved			F51	R	
E3B5-E3B6	58294-58295	12879	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Final Season, Tier 1					
E3B7-E3B8	58296-58297	12880	0		Accumulator for Monitored Data Set 1			F64	R	
E3B9-E3BA	58298-58299	12881	0		Peak Demand for Monitored Data Set 1			F120	R	
E3BB-E3BC	58300-58301	12882	0		Coincident Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E3BD-E3BF	58302-58304	12883	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E3C1	58305	12884	0		Reserved			F51	R	
E3C1-E3C2	58306-58307	12885	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E3C3-E3C4	58308-58309	12886	0		Accumulator for Monitored Data Set 2			F64	R	
E3C5-E3C6	58310-58311	12887	0		Peak Demand for Monitored Data Set 2			F120	R	
E3C7-E3C8	58312-58313	12888	0		Coincident Demand for Monitored Data Set 2			F120	R	
E3C9-E3CB	58314-58316	12889	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E3CD	58317	12890	0		Reserved			F51	R	
E3CD-E3CE	58318-58319	12891	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E3CF-E3D0	58320-58321	12892	0		Accumulator for Monitored Data Set 3			F64	R	
E3D1-E3D2	58322-58323	12893	0		Peak Demand for Monitored Data Set 3			F120	R	
E3D3-E3D4	58324-58325	12894	0		Coincident Demand for Monitored Data Set 3			F120	R	
E3D5-E3D7	58326-58328	12895	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E3D9	58329	12896	0		Reserved			F51	R	
E3D9-E3DA	58330-58331	12897	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E3DB-E3DC	58332-58333	12898	0		Accumulator for Monitored Data Set 4			F64	R	
E3DD-E3DE	58334-58335	12899	0		Peak Demand for Monitored Data Set 4			F120	R	
E3DF-E3E0	58336-58337	12900	0		Coincident Demand for Monitored Data Set 4			F120	R	
E3E1-E3E3	58338-58340	12901	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E3E5	58341	12902	0		Reserved			F51	R	
E3E5-E3E6	58342-58343	12903	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E3E7-E3E8	58344-58345	12904	0		Accumulator for Monitored Data Set 5			F64	R	
E3E9-E3EA	58346-58347	12905	0		Peak Demand for Monitored Data Set 5			F120	R	
E3EB-E3EC	58348-58349	12906	0		Coincident Demand for Monitored Data Set 5			F120	R	
E3ED-E3EF	58350-58352	12907	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E3F1	58353	12908	0		Reserved			F51	R	
E3F1-E3F2	58354-58355	12909	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E3F3-E3F4	58356-58357	12910	0		Accumulator for Monitored Data Set 6			F64	R	
E3F5-E3F6	58358-58359	12911	0		Peak Demand for Monitored Data Set 6			F120	R	
E3F7-E3F8	58360-58361	12912	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E3F9-E3FB	58362-58364	12913	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E3FD	58365	12914	0		Reserved			F51	R	
E3FD-E3FE	58366-58367	12915	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E3FF-E400	58368-58369	12916	0		Accumulator for Monitored Data Set 7			F64	R	
E401-E402	58370-58371	12917	0		Peak Demand for Monitored Data Set 7			F120	R	
E403-E404	58372-58373	12918	0		Coincident Demand for Monitored Data Set 7			F120	R	
E405-E407	58374-58376	12919	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E409	58377	12920	0		Reserved			F51	R	
E409-E40A	58378-58379	12921	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E40B-E40C	58380-58381	12922	0		Accumulator for Monitored Data Set 8			F64	R	
E40D-E40E	58382-58383	12923	0		Peak Demand for Monitored Data Set 8			F120	R	
E40F-E410	58384-58385	12924	0		Coincident Demand for Monitored Data Set 8			F120	R	
E411-E413	58386-58388	12925	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E415	58389	12926	0		Reserved			F51	R	
E415-E416	58390-58391	12927	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E417-E418	58392-58393	12928	0		Accumulator for Monitored Data Set 9			F64	R	
E419-E41A	58394-58395	12929	0		Peak Demand for Monitored Data Set 9			F120	R	
E41B-E41C	58396-58397	12930	0		Coincident Demand for Monitored Data Set 9			F120	R	
E41D-E41F	58398-58400	12931	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E421	58401	12932	0		Reserved			F51	R	
E421-E422	58402-58403	12933	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E423-E424	58404-58405	12934	0		Accumulator for Monitored Data Set 10			F64	R	
E425-E426	58406-58407	12935	0		Peak Demand for Monitored Data Set 10			F120	R	
E427-E428	58408-58409	12936	0		Coincident Demand for Monitored Data Set 10			F120	R	
E429-E42B	58410-58412	12937	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E42D	58413	12938	0		Reserved			F51	R	
E42D-E42E	58414-58415	12939	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E42F-E430	58416-58417	12940	0		Accumulator for Monitored Data Set 11			F64	R	
E431-E432	58418-58419	12941	0		Peak Demand for Monitored Data Set 11			F120	R	
E433-E434	58420-58421	12942	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E435-E437	58422-58424	12943	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E439	58425	12944	0		Reserved			F51	R	
E439-E43A	58426-58427	12945	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E43B-E43C	58428-58429	12946	0		Accumulator for Monitored Data Set 12			F64	R	
E43D-E43E	58430-58431	12947	0		Peak Demand for Monitored Data Set 12			F120	R	
E43F-E440	58432-58433	12948	0		Coincident Demand for Monitored Data Set 12			F120	R	
E441-E443	58434-58436	12949	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E445	58437	12950	0		Reserved			F51	R	
E445-E446	58438-58439	12951	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E447-E448	58440-58441	12952	0		Accumulator for Monitored Data Set 13			F64	R	
E449-E44A	58442-58443	12953	0		Peak Demand for Monitored Data Set 13			F120	R	
E44B-E44C	58444-58445	12954	0		Coincident Demand for Monitored Data Set 13			F120	R	
E44D-E44F	58446-58448	12955	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E451	58449	12956	0		Reserved			F51	R	
E451-E452	58450-58451	12957	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E453-E454	58452-58453	12958	0		Accumulator for Monitored Data Set 14			F64	R	
E455-E456	58454-58455	12959	0		Peak Demand for Monitored Data Set 14			F120	R	
E457-E458	58456-58457	12960	0		Coincident Demand for Monitored Data Set 14			F120	R	
E459-E45B	58458-58460	12961	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E45D	58461	12962	0		Reserved			F51	R	
E45D-E45E	58462-58463	12963	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E45F-E460	58464-58465	12964	0		Accumulator for Monitored Data Set 15			F64	R	
E461-E462	58466-58467	12965	0		Peak Demand for Monitored Data Set 15			F120	R	
E463-E464	58468-58469	12966	0		Coincident Demand for Monitored Data Set 15			F120	R	
E465-E467	58470-58472	12967	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E469	58473	12968	0		Reserved			F51	R	
E469-E46A	58474-58475	12969	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E46B-E46C	58476-58477	12970	0		Accumulator for Monitored Data Set 16			F64	R	
E46D-E46E	58478-58479	12971	0		Peak Demand for Monitored Data Set 16			F120	R	
E46F-E470	58480-58481	12972	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E471-E473	58482-58484	12973	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E475	58485	12974	0		Reserved			F51	R	
E475-E476	58486-58487	12975	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Final Season, Tier 2					
E477-E478	58488-58489	12976	0		Accumulator for Monitored Data Set 1			F64	R	
E479-E47A	58490-58491	12977	0		Peak Demand for Monitored Data Set 1			F120	R	
E47B-E47C	58492-58493	12978	0		Coincident Demand for Monitored Data Set 1			F120	R	
E47D-E47F	58494-58496	12979	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E481	58497	12980	0		Reserved			F51	R	
E481-E482	58498-58499	12981	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E483-E484	58500-58501	12982	0		Accumulator for Monitored Data Set 2			F64	R	
E485-E486	58502-58503	12983	0		Peak Demand for Monitored Data Set 2			F120	R	
E487-E488	58504-58505	12984	0		Coincident Demand for Monitored Data Set 2			F120	R	
E489-E48B	58506-58508	12985	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E48D	58509	12986	0		Reserved			F51	R	
E48D-E48E	58510-58511	12987	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E48F-E490	58512-58513	12988	0		Accumulator for Monitored Data Set 3			F64	R	
E491-E492	58514-58515	12989	0		Peak Demand for Monitored Data Set 3			F120	R	
E493-E494	58516-58517	12990	0		Coincident Demand for Monitored Data Set 3			F120	R	
E495-E497	58518-58520	12991	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E499	58521	12992	0		Reserved			F51	R	
E499-E49A	58522-58523	12993	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E49B-E49C	58524-58525	12994	0		Accumulator for Monitored Data Set 4			F64	R	
E49D-E49E	58526-58527	12995	0		Peak Demand for Monitored Data Set 4			F120	R	
E49F-E4A0	58528-58529	12996	0		Coincident Demand for Monitored Data Set 4			F120	R	
E4A1-E4A3	58530-58532	12997	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E4A5	58533	12998	0		Reserved			F51	R	
E4A5-E4A6	58534-58535	12999	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E4A7-E4A8	58536-58537	13000	0		Accumulator for Monitored Data Set 5			F64	R	
E4A9-E4AA	58538-58539	13001	0		Peak Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E4AB-E4AC	58540-58541	13002	0		Coincident Demand for Monitored Data Set 5			F120	R	
E4AD-E4AF	58542-58544	13003	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E4B1	58545	13004	0		Reserved			F51	R	
E4B1-E4B2	58546-58547	13005	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E4B3-E4B4	58548-58549	13006	0		Accumulator for Monitored Data Set 6			F64	R	
E4B5-E4B6	58550-58551	13007	0		Peak Demand for Monitored Data Set 6			F120	R	
E4B7-E4B8	58552-58553	13008	0		Coincident Demand for Monitored Data Set 6			F120	R	
E4B9-E4BB	58554-58556	13009	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E4BD	58557	13010	0		Reserved			F51	R	
E4BD-E4BE	58558-58559	13011	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E4BF-E4C0	58560-58561	13012	0		Accumulator for Monitored Data Set 7			F64	R	
E4C1-E4C2	58562-58563	13013	0		Peak Demand for Monitored Data Set 7			F120	R	
E4C3-E4C4	58564-58565	13014	0		Coincident Demand for Monitored Data Set 7			F120	R	
E4C5-E4C7	58566-58568	13015	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E4C9	58569	13016	0		Reserved			F51	R	
E4C9-E4CA	58570-58571	13017	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E4CB-E4CC	58572-58573	13018	0		Accumulator for Monitored Data Set 8			F64	R	
E4CD-E4CE	58574-58575	13019	0		Peak Demand for Monitored Data Set 8			F120	R	
E4CF-E4D0	58576-58577	13020	0		Coincident Demand for Monitored Data Set 8			F120	R	
E4D1-E4D3	58578-58580	13021	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E4D5	58581	13022	0		Reserved			F51	R	
E4D5-E4D6	58582-58583	13023	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E4D7-E4D8	58584-58585	13024	0		Accumulator for Monitored Data Set 9			F64	R	
E4D9-E4DA	58586-58587	13025	0		Peak Demand for Monitored Data Set 9			F120	R	
E4DB-E4DC	58588-58589	13026	0		Coincident Demand for Monitored Data Set 9			F120	R	
E4DD-E4DF	58590-58592	13027	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E4E1	58593	13028	0		Reserved			F51	R	
E4E1-E4E2	58594-58595	13029	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E4E3-E4E4	58596-58597	13030	0		Accumulator for Monitored Data Set 10			F64	R	
E4E5-E4E6	58598-58599	13031	0		Peak Demand for Monitored Data Set 10			F120	R	
E4E7-E4E8	58600-58601	13032	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E4E9-E4EB	58602-58604	13033	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E4ED	58605	13034	0		Reserved			F51	R	
E4ED-E4EE	58606-58607	13035	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E4EF-E4F0	58608-58609	13036	0		Accumulator for Monitored Data Set 11			F64	R	
E4F1-E4F2	58610-58611	13037	0		Peak Demand for Monitored Data Set 11			F120	R	
E4F3-E4F4	58612-58613	13038	0		Coincident Demand for Monitored Data Set 11			F120	R	
E4F5-E4F7	58614-58616	13039	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E4F9	58617	13040	0		Reserved			F51	R	
E4F9-E4FA	58618-58619	13041	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E4FB-E4FC	58620-58621	13042	0		Accumulator for Monitored Data Set 12			F64	R	
E4FD-E4FE	58622-58623	13043	0		Peak Demand for Monitored Data Set 12			F120	R	
E4FF-E500	58624-58625	13044	0		Coincident Demand for Monitored Data Set 12			F120	R	
E501-E503	58626-58628	13045	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E505	58629	13046	0		Reserved			F51	R	
E505-E506	58630-58631	13047	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E507-E508	58632-58633	13048	0		Accumulator for Monitored Data Set 13			F64	R	
E509-E50A	58634-58635	13049	0		Peak Demand for Monitored Data Set 13			F120	R	
E50B-E50C	58636-58637	13050	0		Coincident Demand for Monitored Data Set 13			F120	R	
E50D-E50F	58638-58640	13051	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E511	58641	13052	0		Reserved			F51	R	
E511-E512	58642-58643	13053	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E513-E514	58644-58645	13054	0		Accumulator for Monitored Data Set 14			F64	R	
E515-E516	58646-58647	13055	0		Peak Demand for Monitored Data Set 14			F120	R	
E517-E518	58648-58649	13056	0		Coincident Demand for Monitored Data Set 14			F120	R	
E519-E51B	58650-58652	13057	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E51D	58653	13058	0		Reserved			F51	R	
E51D-E51E	58654-58655	13059	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E51F-E520	58656-58657	13060	0		Accumulator for Monitored Data Set 15			F64	R	
E521-E522	58658-58659	13061	0		Peak Demand for Monitored Data Set 15			F120	R	
E523-E524	58660-58661	13062	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E525-E527	58662-58664	13063	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E529	58665	13064	0		Reserved			F51	R	
E529-E52A	58666-58667	13065	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E52B-E52C	58668-58669	13066	0		Accumulator for Monitored Data Set 16			F64	R	
E52D-E52E	58670-58671	13067	0		Peak Demand for Monitored Data Set 16			F120	R	
E52F-E530	58672-58673	13068	0		Coincident Demand for Monitored Data Set 16			F120	R	
E531-E533	58674-58676	13069	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E535	58677	13070	0		Reserved			F51	R	
E535-E536	58678-58679	13071	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Final Season, Tier 3					
E537-E538	58680-58681	13072	0		Accumulator for Monitored Data Set 1			F64	R	
E539-E53A	58682-58683	13073	0		Peak Demand for Monitored Data Set 1			F120	R	
E53B-E53C	58684-58685	13074	0		Coincident Demand for Monitored Data Set 1			F120	R	
E53D-E53F	58686-58688	13075	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E541	58689	13076	0		Reserved			F51	R	
E541-E542	58690-58691	13077	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E543-E544	58692-58693	13078	0		Accumulator for Monitored Data Set 2			F64	R	
E545-E546	58694-58695	13079	0		Peak Demand for Monitored Data Set 2			F120	R	
E547-E548	58696-58697	13080	0		Coincident Demand for Monitored Data Set 2			F120	R	
E549-E54B	58698-58700	13081	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E54D	58701	13082	0		Reserved			F51	R	
E54D-E54E	58702-58703	13083	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E54F-E550	58704-58705	13084	0		Accumulator for Monitored Data Set 3			F64	R	
E551-E552	58706-58707	13085	0		Peak Demand for Monitored Data Set 3			F120	R	
E553-E554	58708-58709	13086	0		Coincident Demand for Monitored Data Set 3			F120	R	
E555-E557	58710-58712	13087	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E559	58713	13088	0		Reserved			F51	R	
E559-E55A	58714-58715	13089	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E55B-E55C	58716-58717	13090	0		Accumulator for Monitored Data Set 4			F64	R	
E55D-E55E	58718-58719	13091	0		Peak Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E55F-E560	58720-58721	13092	0		Coincident Demand for Monitored Data Set 4			F120	R	
E561-E563	58722-58724	13093	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E565	58725	13094	0		Reserved			F51	R	
E565-E566	58726-58727	13095	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E567-E568	58728-58729	13096	0		Accumulator for Monitored Data Set 5			F64	R	
E569-E56A	58730-58731	13097	0		Peak Demand for Monitored Data Set 5			F120	R	
E56B-E56C	58732-58733	13098	0		Coincident Demand for Monitored Data Set 5			F120	R	
E56D-E56F	58734-58736	13099	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E571	58737	13100	0		Reserved			F51	R	
E571-E572	58738-58739	13101	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E573-E574	58740-58741	13102	0		Accumulator for Monitored Data Set 6			F64	R	
E575-E576	58742-58743	13103	0		Peak Demand for Monitored Data Set 6			F120	R	
E577-E578	58744-58745	13104	0		Coincident Demand for Monitored Data Set 6			F120	R	
E579-E57B	58746-58748	13105	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E57D	58749	13106	0		Reserved			F51	R	
E57D-E57E	58750-58751	13107	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E57F-E580	58752-58753	13108	0		Accumulator for Monitored Data Set 7			F64	R	
E581-E582	58754-58755	13109	0		Peak Demand for Monitored Data Set 7			F120	R	
E583-E584	58756-58757	13110	0		Coincident Demand for Monitored Data Set 7			F120	R	
E585-E587	58758-58760	13111	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E589	58761	13112	0		Reserved			F51	R	
E589-E58A	58762-58763	13113	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E58B-E58C	58764-58765	13114	0		Accumulator for Monitored Data Set 8			F64	R	
E58D-E58E	58766-58767	13115	0		Peak Demand for Monitored Data Set 8			F120	R	
E58F-E590	58768-58769	13116	0		Coincident Demand for Monitored Data Set 8			F120	R	
E591-E593	58770-58772	13117	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E595	58773	13118	0		Reserved			F51	R	
E595-E596	58774-58775	13119	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E597-E598	58776-58777	13120	0		Accumulator for Monitored Data Set 9			F64	R	
E599-E59A	58778-58779	13121	0		Peak Demand for Monitored Data Set 9			F120	R	
E59B-E59C	58780-58781	13122	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E59D-E59F	58782-58784	13123	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E5A1	58785	13124	0		Reserved			F51	R	
E5A1-E5A2	58786-58787	13125	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E5A3-E5A4	58788-58789	13126	0		Accumulator for Monitored Data Set 10			F64	R	
E5A5-E5A6	58790-58791	13127	0		Peak Demand for Monitored Data Set 10			F120	R	
E5A7-E5A8	58792-58793	13128	0		Coincident Demand for Monitored Data Set 10			F120	R	
E5A9-E5AB	58794-58796	13129	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E5AD	58797	13130	0		Reserved			F51	R	
E5AD-E5AE	58798-58799	13131	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E5AF-E5B0	58800-58801	13132	0		Accumulator for Monitored Data Set 11			F64	R	
E5B1-E5B2	58802-58803	13133	0		Peak Demand for Monitored Data Set 11			F120	R	
E5B3-E5B4	58804-58805	13134	0		Coincident Demand for Monitored Data Set 11			F120	R	
E5B5-E5B7	58806-58808	13135	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E5B9	58809	13136	0		Reserved			F51	R	
E5B9-E5BA	58810-58811	13137	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E5BB-E5BC	58812-58813	13138	0		Accumulator for Monitored Data Set 12			F64	R	
E5BD-E5BE	58814-58815	13139	0		Peak Demand for Monitored Data Set 12			F120	R	
E5BF-E5C0	58816-58817	13140	0		Coincident Demand for Monitored Data Set 12			F120	R	
E5C1-E5C3	58818-58820	13141	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E5C5	58821	13142	0		Reserved			F51	R	
E5C5-E5C6	58822-58823	13143	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E5C7-E5C8	58824-58825	13144	0		Accumulator for Monitored Data Set 13			F64	R	
E5C9-E5CA	58826-58827	13145	0		Peak Demand for Monitored Data Set 13			F120	R	
E5CB-E5CC	58828-58829	13146	0		Coincident Demand for Monitored Data Set 13			F120	R	
E5CD-E5CF	58830-58832	13147	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E5D1	58833	13148	0		Reserved			F51	R	
E5D1-E5D2	58834-58835	13149	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E5D3-E5D4	58836-58837	13150	0		Accumulator for Monitored Data Set 14			F64	R	
E5D5-E5D6	58838-58839	13151	0		Peak Demand for Monitored Data Set 14			F120	R	
E5D7-E5D8	58840-58841	13152	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E5D9-E5DB	58842-58844	13153	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E5DD	58845	13154	0		Reserved			F51	R	
E5DD-E5DE	58846-58847	13155	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E5DF-E5E0	58848-58849	13156	0		Accumulator for Monitored Data Set 15			F64	R	
E5E1-E5E2	58850-58851	13157	0		Peak Demand for Monitored Data Set 15			F120	R	
E5E3-E5E4	58852-58853	13158	0		Coincident Demand for Monitored Data Set 15			F120	R	
E5E5-E5E7	58854-58856	13159	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E5E9	58857	13160	0		Reserved			F51	R	
E5E9-E5EA	58858-58859	13161	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E5EB-E5EC	58860-58861	13162	0		Accumulator for Monitored Data Set 16			F64	R	
E5ED-E5EE	58862-58863	13163	0		Peak Demand for Monitored Data Set 16			F120	R	
E5EF-E5F0	58864-58865	13164	0		Coincident Demand for Monitored Data Set 16			F120	R	
E5F1-E5F3	58866-58868	13165	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E5F5	58869	13166	0		Reserved			F51	R	
E5F5-E5F6	58870-58871	13167	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Month, Final Season, Tier 4					
E5F7-E5F8	58872-58873	13168	0		Accumulator for Monitored Data Set 1			F64	R	
E5F9-E5FA	58874-58875	13169	0		Peak Demand for Monitored Data Set 1			F120	R	
E5FB-E5FC	58876-58877	13170	0		Coincident Demand for Monitored Data Set 1			F120	R	
E5FD-E5FF	58878-58880	13171	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E601	58881	13172	0		Reserved			F51	R	
E601-E602	58882-58883	13173	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E603-E604	58884-58885	13174	0		Accumulator for Monitored Data Set 2			F64	R	
E605-E606	58886-58887	13175	0		Peak Demand for Monitored Data Set 2			F120	R	
E607-E608	58888-58889	13176	0		Coincident Demand for Monitored Data Set 2			F120	R	
E609-E60B	58890-58892	13177	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E60D	58893	13178	0		Reserved			F51	R	
E60D-E60E	58894-58895	13179	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E60F-E610	58896-58897	13180	0		Accumulator for Monitored Data Set 3			F64	R	
E611-E612	58898-58899	13181	0		Peak Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E613-E614	58900-58901	13182	0		Coincident Demand for Monitored Data Set 3			F120	R	
E615-E617	58902-58904	13183	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E619	58905	13184	0		Reserved			F51	R	
E619-E61A	58906-58907	13185	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E61B-E61C	58908-58909	13186	0		Accumulator for Monitored Data Set 4			F64	R	
E61D-E61E	58910-58911	13187	0		Peak Demand for Monitored Data Set 4			F120	R	
E61F-E620	58912-58913	13188	0		Coincident Demand for Monitored Data Set 4			F120	R	
E621-E623	58914-58916	13189	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E625	58917	13190	0		Reserved			F51	R	
E625-E626	58918-58919	13191	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E627-E628	58920-58921	13192	0		Accumulator for Monitored Data Set 5			F64	R	
E629-E62A	58922-58923	13193	0		Peak Demand for Monitored Data Set 5			F120	R	
E62B-E62C	58924-58925	13194	0		Coincident Demand for Monitored Data Set 5			F120	R	
E62D-E62F	58926-58928	13195	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E631	58929	13196	0		Reserved			F51	R	
E631-E632	58930-58931	13197	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E633-E634	58932-58933	13198	0		Accumulator for Monitored Data Set 6			F64	R	
E635-E636	58934-58935	13199	0		Peak Demand for Monitored Data Set 6			F120	R	
E637-E638	58936-58937	13200	0		Coincident Demand for Monitored Data Set 6			F120	R	
E639-E63B	58938-58940	13201	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E63D	58941	13202	0		Reserved			F51	R	
E63D-E63E	58942-58943	13203	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E63F-E640	58944-58945	13204	0		Accumulator for Monitored Data Set 7			F64	R	
E641-E642	58946-58947	13205	0		Peak Demand for Monitored Data Set 7			F120	R	
E643-E644	58948-58949	13206	0		Coincident Demand for Monitored Data Set 7			F120	R	
E645-E647	58950-58952	13207	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E649	58953	13208	0		Reserved			F51	R	
E649-E64A	58954-58955	13209	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E64B-E64C	58956-58957	13210	0		Accumulator for Monitored Data Set 8			F64	R	
E64D-E64E	58958-58959	13211	0		Peak Demand for Monitored Data Set 8			F120	R	
E64F-E650	58960-58961	13212	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E651-E653	58962-58964	13213	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E655	58965	13214	0		Reserved			F51	R	
E655-E656	58966-58967	13215	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E657-E658	58968-58969	13216	0		Accumulator for Monitored Data Set 9			F64	R	
E659-E65A	58970-58971	13217	0		Peak Demand for Monitored Data Set 9			F120	R	
E65B-E65C	58972-58973	13218	0		Coincident Demand for Monitored Data Set 9			F120	R	
E65D-E65F	58974-58976	13219	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E661	58977	13220	0		Reserved			F51	R	
E661-E662	58978-58979	13221	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E663-E664	58980-58981	13222	0		Accumulator for Monitored Data Set 10			F64	R	
E665-E666	58982-58983	13223	0		Peak Demand for Monitored Data Set 10			F120	R	
E667-E668	58984-58985	13224	0		Coincident Demand for Monitored Data Set 10			F120	R	
E669-E66B	58986-58988	13225	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E66D	58989	13226	0		Reserved			F51	R	
E66D-E66E	58990-58991	13227	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E66F-E670	58992-58993	13228	0		Accumulator for Monitored Data Set 11			F64	R	
E671-E672	58994-58995	13229	0		Peak Demand for Monitored Data Set 11			F120	R	
E673-E674	58996-58997	13230	0		Coincident Demand for Monitored Data Set 11			F120	R	
E675-E677	58998-59000	13231	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E679	59001	13232	0		Reserved			F51	R	
E679-E67A	59002-59003	13233	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E67B-E67C	59004-59005	13234	0		Accumulator for Monitored Data Set 12			F64	R	
E67D-E67E	59006-59007	13235	0		Peak Demand for Monitored Data Set 12			F120	R	
E67F-E680	59008-59009	13236	0		Coincident Demand for Monitored Data Set 12			F120	R	
E681-E683	59010-59012	13237	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E685	59013	13238	0		Reserved			F51	R	
E685-E686	59014-59015	13239	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E687-E688	59016-59017	13240	0		Accumulator for Monitored Data Set 13			F64	R	
E689-E68A	59018-59019	13241	0		Peak Demand for Monitored Data Set 13			F120	R	
E68B-E68C	59020-59021	13242	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E68D-E68F	59022-59024	13243	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E691	59025	13244	0		Reserved			F51	R	
E691-E692	59026-59027	13245	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E693-E694	59028-59029	13246	0		Accumulator for Monitored Data Set 14			F64	R	
E695-E696	59030-59031	13247	0		Peak Demand for Monitored Data Set 14			F120	R	
E697-E698	59032-59033	13248	0		Coincident Demand for Monitored Data Set 14			F120	R	
E699-E69B	59034-59036	13249	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E69D	59037	13250	0		Reserved			F51	R	
E69D-E69E	59038-59039	13251	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E69F-E6A0	59040-59041	13252	0		Accumulator for Monitored Data Set 15			F64	R	
E6A1-E6A2	59042-59043	13253	0		Peak Demand for Monitored Data Set 15			F120	R	
E6A3-E6A4	59044-59045	13254	0		Coincident Demand for Monitored Data Set 15			F120	R	
E6A5-E6A7	59046-59048	13255	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E6A9	59049	13256	0		Reserved			F51	R	
E6A9-E6AA	59050-59051	13257	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E6AB-E6AC	59052-59053	13258	0		Accumulator for Monitored Data Set 16			F64	R	
E6AD-E6AE	59054-59055	13259	0		Peak Demand for Monitored Data Set 16			F120	R	
E6AF-E6B0	59056-59057	13260	0		Coincident Demand for Monitored Data Set 16			F120	R	
E6B1-E6B3	59058-59060	13261	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E6B5	59061	13262	0		Reserved			F51	R	
E6B5-E6B6	59062-59063	13263	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Season					
		base=13264, group count=6*16= 96, groups=5			Current Season Tier 0 (total) Current Season Tier 1 Current Season Tier 2 Current Season Tier 3 Current Season Tier 4					
E797-E798	59288-59289	13264	0		Accumulator for Monitored Data Set 1			F64	R	
E799-E79A	59290-59291	13265	0		Peak Demand for Monitored Data Set 1			F120	R	
E79B-E79C	59292-59293	13266	0		Coincident Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E79D-E79F	59294-59296	13267	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E7A1	59297	13268	0		Reserved			F51	R	
E7A1-E7A2	59298-59299	13269	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E7A3-E7A4	59300-59301	13270	0		Accumulator for Monitored Data Set 2			F64	R	
E7A5-E7A6	59302-59303	13271	0		Peak Demand for Monitored Data Set 2			F120	R	
E7A7-E7A8	59304-59305	13272	0		Coincident Demand for Monitored Data Set 2			F120	R	
E7A9-E7AB	59306-59308	13273	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E7AD	59309	13274	0		Reserved			F51	R	
E7AD-E7AE	59310-59311	13275	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E7AF-E7B0	59312-59313	13276	0		Accumulator for Monitored Data Set 3			F64	R	
E7B1-E7B2	59314-59315	13277	0		Peak Demand for Monitored Data Set 3			F120	R	
E7B3-E7B4	59316-59317	13278	0		Coincident Demand for Monitored Data Set 3			F120	R	
E7B5-E7B7	59318-59320	13279	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E7B9	59321	13280	0		Reserved			F51	R	
E7B9-E7BA	59322-59323	13281	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E7BB-E7BC	59324-59325	13282	0		Accumulator for Monitored Data Set 4			F64	R	
E7BD-E7BE	59326-59327	13283	0		Peak Demand for Monitored Data Set 4			F120	R	
E7BF-E7C0	59328-59329	13284	0		Coincident Demand for Monitored Data Set 4			F120	R	
E7C1-E7C3	59330-59332	13285	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E7C5	59333	13286	0		Reserved			F51	R	
E7C5-E7C6	59334-59335	13287	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E7C7-E7C8	59336-59337	13288	0		Accumulator for Monitored Data Set 5			F64	R	
E7C9-E7CA	59338-59339	13289	0		Peak Demand for Monitored Data Set 5			F120	R	
E7CB-E7CC	59340-59341	13290	0		Coincident Demand for Monitored Data Set 5			F120	R	
E7CD-E7CF	59342-59344	13291	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E7D1	59345	13292	0		Reserved			F51	R	
E7D1-E7D2	59346-59347	13293	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E7D3-E7D4	59348-59349	13294	0		Accumulator for Monitored Data Set 6			F64	R	
E7D5-E7D6	59350-59351	13295	0		Peak Demand for Monitored Data Set 6			F120	R	
E7D7-E7D8	59352-59353	13296	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E7D9-E7DB	59354-59356	13297	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E7DD	59357	13298	0		Reserved			F51	R	
E7DD-E7DE	59358-59359	13299	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E7DF-E7E0	59360-59361	13300	0		Accumulator for Monitored Data Set 7			F64	R	
E7E1-E7E2	59362-59363	13301	0		Peak Demand for Monitored Data Set 7			F120	R	
E7E3-E7E4	59364-59365	13302	0		Coincident Demand for Monitored Data Set 7			F120	R	
E7E5-E7E7	59366-59368	13303	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E7E9	59369	13304	0		Reserved			F51	R	
E7E9-E7EA	59370-59371	13305	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E7EB-E7EC	59372-59373	13306	0		Accumulator for Monitored Data Set 8			F64	R	
E7ED-E7EE	59374-59375	13307	0		Peak Demand for Monitored Data Set 8			F120	R	
E7EF-E7F0	59376-59377	13308	0		Coincident Demand for Monitored Data Set 8			F120	R	
E7F1-E7F3	59378-59380	13309	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E7F5	59381	13310	0		Reserved			F51	R	
E7F5-E7F6	59382-59383	13311	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E7F7-E7F8	59384-59385	13312	0		Accumulator for Monitored Data Set 9			F64	R	
E7F9-E7FA	59386-59387	13313	0		Peak Demand for Monitored Data Set 9			F120	R	
E7FB-E7FC	59388-59389	13314	0		Coincident Demand for Monitored Data Set 9			F120	R	
E7FD-E7FF	59390-59392	13315	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E801	59393	13316	0		Reserved			F51	R	
E801-E802	59394-59395	13317	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E803-E804	59396-59397	13318	0		Accumulator for Monitored Data Set 10			F64	R	
E805-E806	59398-59399	13319	0		Peak Demand for Monitored Data Set 10			F120	R	
E807-E808	59400-59401	13320	0		Coincident Demand for Monitored Data Set 10			F120	R	
E809-E80B	59402-59404	13321	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E80D	59405	13322	0		Reserved			F51	R	
E80D-E80E	59406-59407	13323	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E80F-E810	59408-59409	13324	0		Accumulator for Monitored Data Set 11			F64	R	
E811-E812	59410-59411	13325	0		Peak Demand for Monitored Data Set 11			F120	R	
E813-E814	59412-59413	13326	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E815-E817	59414-59416	13327	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E819	59417	13328	0		Reserved			F51	R	
E819-E81A	59418-59419	13329	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E81B-E81C	59420-59421	13330	0		Accumulator for Monitored Data Set 12			F64	R	
E81D-E81E	59422-59423	13331	0		Peak Demand for Monitored Data Set 12			F120	R	
E81F-E820	59424-59425	13332	0		Coincident Demand for Monitored Data Set 12			F120	R	
E821-E823	59426-59428	13333	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E825	59429	13334	0		Reserved			F51	R	
E825-E826	59430-59431	13335	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E827-E828	59432-59433	13336	0		Accumulator for Monitored Data Set 13			F64	R	
E829-E82A	59434-59435	13337	0		Peak Demand for Monitored Data Set 13			F120	R	
E82B-E82C	59436-59437	13338	0		Coincident Demand for Monitored Data Set 13			F120	R	
E82D-E82F	59438-59440	13339	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E831	59441	13340	0		Reserved			F51	R	
E831-E832	59442-59443	13341	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E833-E834	59444-59445	13342	0		Accumulator for Monitored Data Set 14			F64	R	
E835-E836	59446-59447	13343	0		Peak Demand for Monitored Data Set 14			F120	R	
E837-E838	59448-59449	13344	0		Coincident Demand for Monitored Data Set 14			F120	R	
E839-E83B	59450-59452	13345	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E83D	59453	13346	0		Reserved			F51	R	
E83D-E83E	59454-59455	13347	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E83F-E840	59456-59457	13348	0		Accumulator for Monitored Data Set 15			F64	R	
E841-E842	59458-59459	13349	0		Peak Demand for Monitored Data Set 15			F120	R	
E843-E844	59460-59461	13350	0		Coincident Demand for Monitored Data Set 15			F120	R	
E845-E847	59462-59464	13351	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E849	59465	13352	0		Reserved			F51	R	
E849-E84A	59466-59467	13353	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E84B-E84C	59468-59469	13354	0		Accumulator for Monitored Data Set 16			F64	R	
E84D-E84E	59470-59471	13355	0		Peak Demand for Monitored Data Set 16			F120	R	
E84F-E850	59472-59473	13356	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E851-E853	59474-59476	13357	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E855	59477	13358	0		Reserved			F51	R	
E855-E856	59478-59479	13359	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Season Tier 1					
E857-E858	59480-59481	13360	0		Accumulator for Monitored Data Set 1			F64	R	
E859-E85A	59482-59483	13361	0		Peak Demand for Monitored Data Set 1			F120	R	
E85B-E85C	59484-59485	13362	0		Coincident Demand for Monitored Data Set 1			F120	R	
E85D-E85F	59486-59488	13363	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E861	59489	13364	0		Reserved			F51	R	
E861-E862	59490-59491	13365	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E863-E864	59492-59493	13366	0		Accumulator for Monitored Data Set 2			F64	R	
E865-E866	59494-59495	13367	0		Peak Demand for Monitored Data Set 2			F120	R	
E867-E868	59496-59497	13368	0		Coincident Demand for Monitored Data Set 2			F120	R	
E869-E86B	59498-59500	13369	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E86D	59501	13370	0		Reserved			F51	R	
E86D-E86E	59502-59503	13371	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E86F-E870	59504-59505	13372	0		Accumulator for Monitored Data Set 3			F64	R	
E871-E872	59506-59507	13373	0		Peak Demand for Monitored Data Set 3			F120	R	
E873-E874	59508-59509	13374	0		Coincident Demand for Monitored Data Set 3			F120	R	
E875-E877	59510-59512	13375	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E879	59513	13376	0		Reserved			F51	R	
E879-E87A	59514-59515	13377	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E87B-E87C	59516-59517	13378	0		Accumulator for Monitored Data Set 4			F64	R	
E87D-E87E	59518-59519	13379	0		Peak Demand for Monitored Data Set 4			F120	R	
E87F-E880	59520-59521	13380	0		Coincident Demand for Monitored Data Set 4			F120	R	
E881-E883	59522-59524	13381	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E885	59525	13382	0		Reserved			F51	R	
E885-E886	59526-59527	13383	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E887-E888	59528-59529	13384	0		Accumulator for Monitored Data Set 5			F64	R	
E889-E88A	59530-59531	13385	0		Peak Demand for Monitored Data Set 5			F120	R	
E88B-E88C	59532-59533	13386	0		Coincident Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E88D-E88F	59534-59536	13387	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E891	59537	13388	0		Reserved			F51	R	
E891-E892	59538-59539	13389	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E893-E894	59540-59541	13390	0		Accumulator for Monitored Data Set 6			F64	R	
E895-E896	59542-59543	13391	0		Peak Demand for Monitored Data Set 6			F120	R	
E897-E898	59544-59545	13392	0		Coincident Demand for Monitored Data Set 6			F120	R	
E899-E89B	59546-59548	13393	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E89D	59549	13394	0		Reserved			F51	R	
E89D-E89E	59550-59551	13395	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E89F-E8A0	59552-59553	13396	0		Accumulator for Monitored Data Set 7			F64	R	
E8A1-E8A2	59554-59555	13397	0		Peak Demand for Monitored Data Set 7			F120	R	
E8A3-E8A4	59556-59557	13398	0		Coincident Demand for Monitored Data Set 7			F120	R	
E8A5-E8A7	59558-59560	13399	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E8A9	59561	13400	0		Reserved			F51	R	
E8A9-E8AA	59562-59563	13401	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E8AB-E8AC	59564-59565	13402	0		Accumulator for Monitored Data Set 8			F64	R	
E8AD-E8AE	59566-59567	13403	0		Peak Demand for Monitored Data Set 8			F120	R	
E8AF-E8B0	59568-59569	13404	0		Coincident Demand for Monitored Data Set 8			F120	R	
E8B1-E8B3	59570-59572	13405	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E8B5	59573	13406	0		Reserved			F51	R	
E8B5-E8B6	59574-59575	13407	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E8B7-E8B8	59576-59577	13408	0		Accumulator for Monitored Data Set 9			F64	R	
E8B9-E8BA	59578-59579	13409	0		Peak Demand for Monitored Data Set 9			F120	R	
E8BB-E8BC	59580-59581	13410	0		Coincident Demand for Monitored Data Set 9			F120	R	
E8BD-E8BF	59582-59584	13411	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E8C1	59585	13412	0		Reserved			F51	R	
E8C1-E8C2	59586-59587	13413	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E8C3-E8C4	59588-59589	13414	0		Accumulator for Monitored Data Set 10			F64	R	
E8C5-E8C6	59590-59591	13415	0		Peak Demand for Monitored Data Set 10			F120	R	
E8C7-E8C8	59592-59593	13416	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E8C9-E8CB	59594-59596	13417	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E8CD	59597	13418	0		Reserved			F51	R	
E8CD-E8CE	59598-59599	13419	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E8CF-E8D0	59600-59601	13420	0		Accumulator for Monitored Data Set 11			F64	R	
E8D1-E8D2	59602-59603	13421	0		Peak Demand for Monitored Data Set 11			F120	R	
E8D3-E8D4	59604-59605	13422	0		Coincident Demand for Monitored Data Set 11			F120	R	
E8D5-E8D7	59606-59608	13423	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E8D9	59609	13424	0		Reserved			F51	R	
E8D9-E8DA	59610-59611	13425	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E8DB-E8DC	59612-59613	13426	0		Accumulator for Monitored Data Set 12			F64	R	
E8DD-E8DE	59614-59615	13427	0		Peak Demand for Monitored Data Set 12			F120	R	
E8DF-E8E0	59616-59617	13428	0		Coincident Demand for Monitored Data Set 12			F120	R	
E8E1-E8E3	59618-59620	13429	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E8E5	59621	13430	0		Reserved			F51	R	
E8E5-E8E6	59622-59623	13431	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E8E7-E8E8	59624-59625	13432	0		Accumulator for Monitored Data Set 13			F64	R	
E8E9-E8EA	59626-59627	13433	0		Peak Demand for Monitored Data Set 13			F120	R	
E8EB-E8EC	59628-59629	13434	0		Coincident Demand for Monitored Data Set 13			F120	R	
E8ED-E8EF	59630-59632	13435	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E8F1	59633	13436	0		Reserved			F51	R	
E8F1-E8F2	59634-59635	13437	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E8F3-E8F4	59636-59637	13438	0		Accumulator for Monitored Data Set 14			F64	R	
E8F5-E8F6	59638-59639	13439	0		Peak Demand for Monitored Data Set 14			F120	R	
E8F7-E8F8	59640-59641	13440	0		Coincident Demand for Monitored Data Set 14			F120	R	
E8F9-E8FB	59642-59644	13441	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E8FD	59645	13442	0		Reserved			F51	R	
E8FD-E8FE	59646-59647	13443	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E8FF-E900	59648-59649	13444	0		Accumulator for Monitored Data Set 15			F64	R	
E901-E902	59650-59651	13445	0		Peak Demand for Monitored Data Set 15			F120	R	
E903-E904	59652-59653	13446	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E905-E907	59654-59656	13447	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E909	59657	13448	0		Reserved			F51	R	
E909-E90A	59658-59659	13449	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E90B-E90C	59660-59661	13450	0		Accumulator for Monitored Data Set 16			F64	R	
E90D-E90E	59662-59663	13451	0		Peak Demand for Monitored Data Set 16			F120	R	
E90F-E910	59664-59665	13452	0		Coincident Demand for Monitored Data Set 16			F120	R	
E911-E913	59666-59668	13453	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E915	59669	13454	0		Reserved			F51	R	
E915-E916	59670-59671	13455	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Season Tier 2					
E917-E918	59672-59673	13456	0		Accumulator for Monitored Data Set 1			F64	R	
E919-E91A	59674-59675	13457	0		Peak Demand for Monitored Data Set 1			F120	R	
E91B-E91C	59676-59677	13458	0		Coincident Demand for Monitored Data Set 1			F120	R	
E91D-E91F	59678-59680	13459	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E921	59681	13460	0		Reserved			F51	R	
E921-E922	59682-59683	13461	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E923-E924	59684-59685	13462	0		Accumulator for Monitored Data Set 2			F64	R	
E925-E926	59686-59687	13463	0		Peak Demand for Monitored Data Set 2			F120	R	
E927-E928	59688-59689	13464	0		Coincident Demand for Monitored Data Set 2			F120	R	
E929-E92B	59690-59692	13465	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E92D	59693	13466	0		Reserved			F51	R	
E92D-E92E	59694-59695	13467	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E92F-E930	59696-59697	13468	0		Accumulator for Monitored Data Set 3			F64	R	
E931-E932	59698-59699	13469	0		Peak Demand for Monitored Data Set 3			F120	R	
E933-E934	59700-59701	13470	0		Coincident Demand for Monitored Data Set 3			F120	R	
E935-E937	59702-59704	13471	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E939	59705	13472	0		Reserved			F51	R	
E939-E93A	59706-59707	13473	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E93B-E93C	59708-59709	13474	0		Accumulator for Monitored Data Set 4			F64	R	
E93D-E93E	59710-59711	13475	0		Peak Demand for Monitored Data Set 4			F120	R	
E93F-E940	59712-59713	13476	0		Coincident Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E941-E943	59714-59716	13477	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
E945	59717	13478	0		Reserved			F51	R	
E945-E946	59718-59719	13479	0		Cumulative Demand for Monitored Data Set 4			F52	R	
E947-E948	59720-59721	13480	0		Accumulator for Monitored Data Set 5			F64	R	
E949-E94A	59722-59723	13481	0		Peak Demand for Monitored Data Set 5			F120	R	
E94B-E94C	59724-59725	13482	0		Coincident Demand for Monitored Data Set 5			F120	R	
E94D-E94F	59726-59728	13483	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
E951	59729	13484	0		Reserved			F51	R	
E951-E952	59730-59731	13485	0		Cumulative Demand for Monitored Data Set 5			F52	R	
E953-E954	59732-59733	13486	0		Accumulator for Monitored Data Set 6			F64	R	
E955-E956	59734-59735	13487	0		Peak Demand for Monitored Data Set 6			F120	R	
E957-E958	59736-59737	13488	0		Coincident Demand for Monitored Data Set 6			F120	R	
E959-E95B	59738-59740	13489	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
E95D	59741	13490	0		Reserved			F51	R	
E95D-E95E	59742-59743	13491	0		Cumulative Demand for Monitored Data Set 6			F52	R	
E95F-E960	59744-59745	13492	0		Accumulator for Monitored Data Set 7			F64	R	
E961-E962	59746-59747	13493	0		Peak Demand for Monitored Data Set 7			F120	R	
E963-E964	59748-59749	13494	0		Coincident Demand for Monitored Data Set 7			F120	R	
E965-E967	59750-59752	13495	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
E969	59753	13496	0		Reserved			F51	R	
E969-E96A	59754-59755	13497	0		Cumulative Demand for Monitored Data Set 7			F52	R	
E96B-E96C	59756-59757	13498	0		Accumulator for Monitored Data Set 8			F64	R	
E96D-E96E	59758-59759	13499	0		Peak Demand for Monitored Data Set 8			F120	R	
E96F-E970	59760-59761	13500	0		Coincident Demand for Monitored Data Set 8			F120	R	
E971-E973	59762-59764	13501	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
E975	59765	13502	0		Reserved			F51	R	
E975-E976	59766-59767	13503	0		Cumulative Demand for Monitored Data Set 8			F52	R	
E977-E978	59768-59769	13504	0		Accumulator for Monitored Data Set 9			F64	R	
E979-E97A	59770-59771	13505	0		Peak Demand for Monitored Data Set 9			F120	R	
E97B-E97C	59772-59773	13506	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E97D-E97F	59774-59776	13507	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
E981	59777	13508	0		Reserved			F51	R	
E981-E982	59778-59779	13509	0		Cumulative Demand for Monitored Data Set 9			F52	R	
E983-E984	59780-59781	13510	0		Accumulator for Monitored Data Set 10			F64	R	
E985-E986	59782-59783	13511	0		Peak Demand for Monitored Data Set 10			F120	R	
E987-E988	59784-59785	13512	0		Coincident Demand for Monitored Data Set 10			F120	R	
E989-E98B	59786-59788	13513	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
E98D	59789	13514	0		Reserved			F51	R	
E98D-E98E	59790-59791	13515	0		Cumulative Demand for Monitored Data Set 10			F52	R	
E98F-E990	59792-59793	13516	0		Accumulator for Monitored Data Set 11			F64	R	
E991-E992	59794-59795	13517	0		Peak Demand for Monitored Data Set 11			F120	R	
E993-E994	59796-59797	13518	0		Coincident Demand for Monitored Data Set 11			F120	R	
E995-E997	59798-59800	13519	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
E999	59801	13520	0		Reserved			F51	R	
E999-E99A	59802-59803	13521	0		Cumulative Demand for Monitored Data Set 11			F52	R	
E99B-E99C	59804-59805	13522	0		Accumulator for Monitored Data Set 12			F64	R	
E99D-E99E	59806-59807	13523	0		Peak Demand for Monitored Data Set 12			F120	R	
E99F-E9A0	59808-59809	13524	0		Coincident Demand for Monitored Data Set 12			F120	R	
E9A1-E9A3	59810-59812	13525	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
E9A5	59813	13526	0		Reserved			F51	R	
E9A5-E9A6	59814-59815	13527	0		Cumulative Demand for Monitored Data Set 12			F52	R	
E9A7-E9A8	59816-59817	13528	0		Accumulator for Monitored Data Set 13			F64	R	
E9A9-E9AA	59818-59819	13529	0		Peak Demand for Monitored Data Set 13			F120	R	
E9AB-E9AC	59820-59821	13530	0		Coincident Demand for Monitored Data Set 13			F120	R	
E9AD-E9AF	59822-59824	13531	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
E9B1	59825	13532	0		Reserved			F51	R	
E9B1-E9B2	59826-59827	13533	0		Cumulative Demand for Monitored Data Set 13			F52	R	
E9B3-E9B4	59828-59829	13534	0		Accumulator for Monitored Data Set 14			F64	R	
E9B5-E9B6	59830-59831	13535	0		Peak Demand for Monitored Data Set 14			F120	R	
E9B7-E9B8	59832-59833	13536	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E9B9-E9BB	59834-59836	13537	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
E9BD	59837	13538	0		Reserved			F51	R	
E9BD-E9BE	59838-59839	13539	0		Cumulative Demand for Monitored Data Set 14			F52	R	
E9BF-E9C0	59840-59841	13540	0		Accumulator for Monitored Data Set 15			F64	R	
E9C1-E9C2	59842-59843	13541	0		Peak Demand for Monitored Data Set 15			F120	R	
E9C3-E9C4	59844-59845	13542	0		Coincident Demand for Monitored Data Set 15			F120	R	
E9C5-E9C7	59846-59848	13543	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
E9C9	59849	13544	0		Reserved			F51	R	
E9C9-E9CA	59850-59851	13545	0		Cumulative Demand for Monitored Data Set 15			F52	R	
E9CB-E9CC	59852-59853	13546	0		Accumulator for Monitored Data Set 16			F64	R	
E9CD-E9CE	59854-59855	13547	0		Peak Demand for Monitored Data Set 16			F120	R	
E9CF-E9D0	59856-59857	13548	0		Coincident Demand for Monitored Data Set 16			F120	R	
E9D1-E9D3	59858-59860	13549	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
E9D5	59861	13550	0		Reserved			F51	R	
E9D5-E9D6	59862-59863	13551	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Season Tier 3					
E9D7-E9D8	59864-59865	13552	0		Accumulator for Monitored Data Set 1			F64	R	
E9D9-E9DA	59866-59867	13553	0		Peak Demand for Monitored Data Set 1			F120	R	
E9DB-E9DC	59868-59869	13554	0		Coincident Demand for Monitored Data Set 1			F120	R	
E9DD-E9DF	59870-59872	13555	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
E9E1	59873	13556	0		Reserved			F51	R	
E9E1-E9E2	59874-59875	13557	0		Cumulative Demand for Monitored Data Set 1			F52	R	
E9E3-E9E4	59876-59877	13558	0		Accumulator for Monitored Data Set 2			F64	R	
E9E5-E9E6	59878-59879	13559	0		Peak Demand for Monitored Data Set 2			F120	R	
E9E7-E9E8	59880-59881	13560	0		Coincident Demand for Monitored Data Set 2			F120	R	
E9E9-E9EB	59882-59884	13561	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
E9ED	59885	13562	0		Reserved			F51	R	
E9ED-E9EE	59886-59887	13563	0		Cumulative Demand for Monitored Data Set 2			F52	R	
E9EF-E9F0	59888-59889	13564	0		Accumulator for Monitored Data Set 3			F64	R	
E9F1-E9F2	59890-59891	13565	0		Peak Demand for Monitored Data Set 3			F120	R	
E9F3-E9F4	59892-59893	13566	0		Coincident Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
E9F5-E9F7	59894-59896	13567	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
E9F9	59897	13568	0		Reserved			F51	R	
E9F9-E9FA	59898-59899	13569	0		Cumulative Demand for Monitored Data Set 3			F52	R	
E9FB-E9FC	59900-59901	13570	0		Accumulator for Monitored Data Set 4			F64	R	
E9FD-E9FE	59902-59903	13571	0		Peak Demand for Monitored Data Set 4			F120	R	
E9FF-EA00	59904-59905	13572	0		Coincident Demand for Monitored Data Set 4			F120	R	
EA01-EA03	59906-59908	13573	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
EA05	59909	13574	0		Reserved			F51	R	
EA05-EA06	59910-59911	13575	0		Cumulative Demand for Monitored Data Set 4			F52	R	
EA07-EA08	59912-59913	13576	0		Accumulator for Monitored Data Set 5			F64	R	
EA09-EA0A	59914-59915	13577	0		Peak Demand for Monitored Data Set 5			F120	R	
EA0B-EA0C	59916-59917	13578	0		Coincident Demand for Monitored Data Set 5			F120	R	
EA0D-EA0F	59918-59920	13579	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
EA11	59921	13580	0		Reserved			F51	R	
EA11-EA12	59922-59923	13581	0		Cumulative Demand for Monitored Data Set 5			F52	R	
EA13-EA14	59924-59925	13582	0		Accumulator for Monitored Data Set 6			F64	R	
EA15-EA16	59926-59927	13583	0		Peak Demand for Monitored Data Set 6			F120	R	
EA17-EA18	59928-59929	13584	0		Coincident Demand for Monitored Data Set 6			F120	R	
EA19-EA1B	59930-59932	13585	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
EA1D	59933	13586	0		Reserved			F51	R	
EA1D-EA1E	59934-59935	13587	0		Cumulative Demand for Monitored Data Set 6			F52	R	
EA1F-EA20	59936-59937	13588	0		Accumulator for Monitored Data Set 7			F64	R	
EA21-EA22	59938-59939	13589	0		Peak Demand for Monitored Data Set 7			F120	R	
EA23-EA24	59940-59941	13590	0		Coincident Demand for Monitored Data Set 7			F120	R	
EA25-EA27	59942-59944	13591	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
EA29	59945	13592	0		Reserved			F51	R	
EA29-EA2A	59946-59947	13593	0		Cumulative Demand for Monitored Data Set 7			F52	R	
EA2B-EA2C	59948-59949	13594	0		Accumulator for Monitored Data Set 8			F64	R	
EA2D-EA2E	59950-59951	13595	0		Peak Demand for Monitored Data Set 8			F120	R	
EA2F-EA30	59952-59953	13596	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EA31-EA33	59954-59956	13597	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
EA35	59957	13598	0		Reserved			F51	R	
EA35-EA36	59958-59959	13599	0		Cumulative Demand for Monitored Data Set 8			F52	R	
EA37-EA38	59960-59961	13600	0		Accumulator for Monitored Data Set 9			F64	R	
EA39-EA3A	59962-59963	13601	0		Peak Demand for Monitored Data Set 9			F120	R	
EA3B-EA3C	59964-59965	13602	0		Coincident Demand for Monitored Data Set 9			F120	R	
EA3D-EA3F	59966-59968	13603	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
EA41	59969	13604	0		Reserved			F51	R	
EA41-EA42	59970-59971	13605	0		Cumulative Demand for Monitored Data Set 9			F52	R	
EA43-EA44	59972-59973	13606	0		Accumulator for Monitored Data Set 10			F64	R	
EA45-EA46	59974-59975	13607	0		Peak Demand for Monitored Data Set 10			F120	R	
EA47-EA48	59976-59977	13608	0		Coincident Demand for Monitored Data Set 10			F120	R	
EA49-EA4B	59978-59980	13609	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
EA4D	59981	13610	0		Reserved			F51	R	
EA4D-EA4E	59982-59983	13611	0		Cumulative Demand for Monitored Data Set 10			F52	R	
EA4F-EA50	59984-59985	13612	0		Accumulator for Monitored Data Set 11			F64	R	
EA51-EA52	59986-59987	13613	0		Peak Demand for Monitored Data Set 11			F120	R	
EA53-EA54	59988-59989	13614	0		Coincident Demand for Monitored Data Set 11			F120	R	
EA55-EA57	59990-59992	13615	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
EA59	59993	13616	0		Reserved			F51	R	
EA59-EA5A	59994-59995	13617	0		Cumulative Demand for Monitored Data Set 11			F52	R	
EA5B-EA5C	59996-59997	13618	0		Accumulator for Monitored Data Set 12			F64	R	
EA5D-EA5E	59998-59999	13619	0		Peak Demand for Monitored Data Set 12			F120	R	
EA5F-EA60	60000-60001	13620	0		Coincident Demand for Monitored Data Set 12			F120	R	
EA61-EA63	60002-60004	13621	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
EA65	60005	13622	0		Reserved			F51	R	
EA65-EA66	60006-60007	13623	0		Cumulative Demand for Monitored Data Set 12			F52	R	
EA67-EA68	60008-60009	13624	0		Accumulator for Monitored Data Set 13			F64	R	
EA69-EA6A	60010-60011	13625	0		Peak Demand for Monitored Data Set 13			F120	R	
EA6B-EA6C	60012-60013	13626	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EA6D-EA6F	60014-60016	13627	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
EA71	60017	13628	0		Reserved			F51	R	
EA71-EA72	60018-60019	13629	0		Cumulative Demand for Monitored Data Set 13			F52	R	
EA73-EA74	60020-60021	13630	0		Accumulator for Monitored Data Set 14			F64	R	
EA75-EA76	60022-60023	13631	0		Peak Demand for Monitored Data Set 14			F120	R	
EA77-EA78	60024-60025	13632	0		Coincident Demand for Monitored Data Set 14			F120	R	
EA79-EA7B	60026-60028	13633	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
EA7D	60029	13634	0		Reserved			F51	R	
EA7D-EA7E	60030-60031	13635	0		Cumulative Demand for Monitored Data Set 14			F52	R	
EA7F-EA80	60032-60033	13636	0		Accumulator for Monitored Data Set 15			F64	R	
EA81-EA82	60034-60035	13637	0		Peak Demand for Monitored Data Set 15			F120	R	
EA83-EA84	60036-60037	13638	0		Coincident Demand for Monitored Data Set 15			F120	R	
EA85-EA87	60038-60040	13639	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
EA89	60041	13640	0		Reserved			F51	R	
EA89-EA8A	60042-60043	13641	0		Cumulative Demand for Monitored Data Set 15			F52	R	
EA8B-EA8C	60044-60045	13642	0		Accumulator for Monitored Data Set 16			F64	R	
EA8D-EA8E	60046-60047	13643	0		Peak Demand for Monitored Data Set 16			F120	R	
EA8F-EA90	60048-60049	13644	0		Coincident Demand for Monitored Data Set 16			F120	R	
EA91-EA93	60050-60052	13645	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
EA95	60053	13646	0		Reserved			F51	R	
EA95-EA96	60054-60055	13647	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Current Season Tier 4					
EA97-EA98	60056-60057	13648	0		Accumulator for Monitored Data Set 1			F64	R	
EA99-EA9A	60058-60059	13649	0		Peak Demand for Monitored Data Set 1			F120	R	
EA9B-EA9C	60060-60061	13650	0		Coincident Demand for Monitored Data Set 1			F120	R	
EA9D-EA9F	60062-60064	13651	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
EAA1	60065	13652	0		Reserved			F51	R	
EAA1-EAA2	60066-60067	13653	0		Cumulative Demand for Monitored Data Set 1			F52	R	
EAA3-EAA4	60068-60069	13654	0		Accumulator for Monitored Data Set 2			F64	R	
EAA5-EAA6	60070-60071	13655	0		Peak Demand for Monitored Data Set 2			F120	R	
EAA7-EAA8	60072-60073	13656	0		Coincident Demand for Monitored Data Set 2			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EAA9-EAAB	60074-60076	13657	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
EAAD	60077	13658	0		Reserved			F51	R	
EAAD-EAAE	60078-60079	13659	0		Cumulative Demand for Monitored Data Set 2			F52	R	
EAAF-EAB0	60080-60081	13660	0		Accumulator for Monitored Data Set 3			F64	R	
EAB1-EAB2	60082-60083	13661	0		Peak Demand for Monitored Data Set 3			F120	R	
EAB3-EAB4	60084-60085	13662	0		Coincident Demand for Monitored Data Set 3			F120	R	
EAB5-EAB7	60086-60088	13663	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
EAB9	60089	13664	0		Reserved			F51	R	
EAB9-EABA	60090-60091	13665	0		Cumulative Demand for Monitored Data Set 3			F52	R	
EABB-EABC	60092-60093	13666	0		Accumulator for Monitored Data Set 4			F64	R	
EABD-EABE	60094-60095	13667	0		Peak Demand for Monitored Data Set 4			F120	R	
EABF-EAC0	60096-60097	13668	0		Coincident Demand for Monitored Data Set 4			F120	R	
EAC1-EAC3	60098-60100	13669	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
EAC5	60101	13670	0		Reserved			F51	R	
EAC5-EAC6	60102-60103	13671	0		Cumulative Demand for Monitored Data Set 4			F52	R	
EAC7-EAC8	60104-60105	13672	0		Accumulator for Monitored Data Set 5			F64	R	
EAC9-EACA	60106-60107	13673	0		Peak Demand for Monitored Data Set 5			F120	R	
EACB-EACC	60108-60109	13674	0		Coincident Demand for Monitored Data Set 5			F120	R	
EACD-EACF	60110-60112	13675	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
EAD1	60113	13676	0		Reserved			F51	R	
EAD1-EAD2	60114-60115	13677	0		Cumulative Demand for Monitored Data Set 5			F52	R	
EAD3-EAD4	60116-60117	13678	0		Accumulator for Monitored Data Set 6			F64	R	
EAD5-EAD6	60118-60119	13679	0		Peak Demand for Monitored Data Set 6			F120	R	
EAD7-EAD8	60120-60121	13680	0		Coincident Demand for Monitored Data Set 6			F120	R	
EAD9-EADB	60122-60124	13681	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
EADD	60125	13682	0		Reserved			F51	R	
EADD-EADE	60126-60127	13683	0		Cumulative Demand for Monitored Data Set 6			F52	R	
EADF-EAE0	60128-60129	13684	0		Accumulator for Monitored Data Set 7			F64	R	
EAE1-EAE2	60130-60131	13685	0		Peak Demand for Monitored Data Set 7			F120	R	
EAE3-EAE4	60132-60133	13686	0		Coincident Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EAE5-EAE7	60134-60136	13687	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
EAE9	60137	13688	0		Reserved			F51	R	
EAE9-EAEA	60138-60139	13689	0		Cumulative Demand for Monitored Data Set 7			F52	R	
EAEB-EAEC	60140-60141	13690	0		Accumulator for Monitored Data Set 8			F64	R	
EAED-EAEE	60142-60143	13691	0		Peak Demand for Monitored Data Set 8			F120	R	
EAEF-EAF0	60144-60145	13692	0		Coincident Demand for Monitored Data Set 8			F120	R	
EAF1-EAF3	60146-60148	13693	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
EAF5	60149	13694	0		Reserved			F51	R	
EAF5-EAF6	60150-60151	13695	0		Cumulative Demand for Monitored Data Set 8			F52	R	
EAF7-EAF8	60152-60153	13696	0		Accumulator for Monitored Data Set 9			F64	R	
EAF9-EAFA	60154-60155	13697	0		Peak Demand for Monitored Data Set 9			F120	R	
EAFB-EAFC	60156-60157	13698	0		Coincident Demand for Monitored Data Set 9			F120	R	
EAFD-EAFF	60158-60160	13699	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
EB01	60161	13700	0		Reserved			F51	R	
EB01-EB02	60162-60163	13701	0		Cumulative Demand for Monitored Data Set 9			F52	R	
EB03-EB04	60164-60165	13702	0		Accumulator for Monitored Data Set 10			F64	R	
EB05-EB06	60166-60167	13703	0		Peak Demand for Monitored Data Set 10			F120	R	
EB07-EB08	60168-60169	13704	0		Coincident Demand for Monitored Data Set 10			F120	R	
EB09-EB0B	60170-60172	13705	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
EB0D	60173	13706	0		Reserved			F51	R	
EB0D-EB0E	60174-60175	13707	0		Cumulative Demand for Monitored Data Set 10			F52	R	
EB0F-EB10	60176-60177	13708	0		Accumulator for Monitored Data Set 11			F64	R	
EB11-EB12	60178-60179	13709	0		Peak Demand for Monitored Data Set 11			F120	R	
EB13-EB14	60180-60181	13710	0		Coincident Demand for Monitored Data Set 11			F120	R	
EB15-EB17	60182-60184	13711	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
EB19	60185	13712	0		Reserved			F51	R	
EB19-EB1A	60186-60187	13713	0		Cumulative Demand for Monitored Data Set 11			F52	R	
EB1B-EB1C	60188-60189	13714	0		Accumulator for Monitored Data Set 12			F64	R	
EB1D-EB1E	60190-60191	13715	0		Peak Demand for Monitored Data Set 12			F120	R	
EB1F-EB20	60192-60193	13716	0		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EB21-EB23	60194-60196	13717	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
EB25	60197	13718	0		Reserved			F51	R	
EB25-EB26	60198-60199	13719	0		Cumulative Demand for Monitored Data Set 12			F52	R	
EB27-EB28	60200-60201	13720	0		Accumulator for Monitored Data Set 13			F64	R	
EB29-EB2A	60202-60203	13721	0		Peak Demand for Monitored Data Set 13			F120	R	
EB2B-EB2C	60204-60205	13722	0		Coincident Demand for Monitored Data Set 13			F120	R	
EB2D-EB2F	60206-60208	13723	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
EB31	60209	13724	0		Reserved			F51	R	
EB31-EB32	60210-60211	13725	0		Cumulative Demand for Monitored Data Set 13			F52	R	
EB33-EB34	60212-60213	13726	0		Accumulator for Monitored Data Set 14			F64	R	
EB35-EB36	60214-60215	13727	0		Peak Demand for Monitored Data Set 14			F120	R	
EB37-EB38	60216-60217	13728	0		Coincident Demand for Monitored Data Set 14			F120	R	
EB39-EB3B	60218-60220	13729	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
EB3D	60221	13730	0		Reserved			F51	R	
EB3D-EB3E	60222-60223	13731	0		Cumulative Demand for Monitored Data Set 14			F52	R	
EB3F-EB40	60224-60225	13732	0		Accumulator for Monitored Data Set 15			F64	R	
EB41-EB42	60226-60227	13733	0		Peak Demand for Monitored Data Set 15			F120	R	
EB43-EB44	60228-60229	13734	0		Coincident Demand for Monitored Data Set 15			F120	R	
EB45-EB47	60230-60232	13735	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
EB49	60233	13736	0		Reserved			F51	R	
EB49-EB4A	60234-60235	13737	0		Cumulative Demand for Monitored Data Set 15			F52	R	
EB4B-EB4C	60236-60237	13738	0		Accumulator for Monitored Data Set 16			F64	R	
EB4D-EB4E	60238-60239	13739	0		Peak Demand for Monitored Data Set 16			F120	R	
EB4F-EB50	60240-60241	13740	0		Coincident Demand for Monitored Data Set 16			F120	R	
EB51-EB53	60242-60244	13741	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
EB55	60245	13742	0		Reserved			F51	R	
EB55-EB56	60246-60247	13743	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Season					

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
		base=13744 group count=6*16= 96, groups=5			Prior Season Tier 0 (total) Prior Season Tier 1 Prior Season Tier 2 Prior Season Tier 3 Prior Season Tier 4					
EB57-EB58	60248-60249	13744	0		Accumulator for Monitored Data Set 1			F64	R	
EB59-EB5A	60250-60251	13745	0		Peak Demand for Monitored Data Set 1			F120	R	
EB5B-EB5C	60252-60253	13746	0		Coincident Demand for Monitored Data Set 1			F120	R	
EB5D-EB5F	60254-60256	13747	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
EB61	60257	13748	0		Reserved			F51	R	
EB61-EB62	60258-60259	13749	0		Cumulative Demand for Monitored Data Set 1			F52	R	
EB63-EB64	60260-60261	13750	0		Accumulator for Monitored Data Set 2			F64	R	
EB65-EB66	60262-60263	13751	0		Peak Demand for Monitored Data Set 2			F120	R	
EB67-EB68	60264-60265	13752	0		Coincident Demand for Monitored Data Set 2			F120	R	
EB69-EB6B	60266-60268	13753	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
EB6D	60269	13754	0		Reserved			F51	R	
EB6D-EB6E	60270-60271	13755	0		Cumulative Demand for Monitored Data Set 2			F52	R	
EB6F-EB70	60272-60273	13756	0		Accumulator for Monitored Data Set 3			F64	R	
EB71-EB72	60274-60275	13757	0		Peak Demand for Monitored Data Set 3			F120	R	
EB73-EB74	60276-60277	13758	0		Coincident Demand for Monitored Data Set 3			F120	R	
EB75-EB77	60278-60280	13759	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
EB79	60281	13760	0		Reserved			F51	R	
EB79-EB7A	60282-60283	13761	0		Cumulative Demand for Monitored Data Set 3			F52	R	
EB7B-EB7C	60284-60285	13762	0		Accumulator for Monitored Data Set 4			F64	R	
EB7D-EB7E	60286-60287	13763	0		Peak Demand for Monitored Data Set 4			F120	R	
EB7F-EB80	60288-60289	13764	0		Coincident Demand for Monitored Data Set 4			F120	R	
EB81-EB83	60290-60292	13765	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
EB85	60293	13766	0		Reserved			F51	R	
EB85-EB86	60294-60295	13767	0		Cumulative Demand for Monitored Data Set 4			F52	R	
EB87-EB88	60296-60297	13768	0		Accumulator for Monitored Data Set 5			F64	R	
EB89-EB8A	60298-60299	13769	0		Peak Demand for Monitored Data Set 5			F120	R	
EB8B-EB8C	60300-60301	13770	0		Coincident Demand for Monitored Data Set 5			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EB8D-EB8F	60302-60304	13771	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
EB91	60305	13772	0		Reserved			F51	R	
EB91-EB92	60306-60307	13773	0		Cumulative Demand for Monitored Data Set 5			F52	R	
EB93-EB94	60308-60309	13774	0		Accumulator for Monitored Data Set 6			F64	R	
EB95-EB96	60310-60311	13775	0		Peak Demand for Monitored Data Set 6			F120	R	
EB97-EB98	60312-60313	13776	0		Coincident Demand for Monitored Data Set 6			F120	R	
EB99-EB9B	60314-60316	13777	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
EB9D	60317	13778	0		Reserved			F51	R	
EB9D-EB9E	60318-60319	13779	0		Cumulative Demand for Monitored Data Set 6			F52	R	
EB9F-EBA0	60320-60321	13780	0		Accumulator for Monitored Data Set 7			F64	R	
EBA1-EBA2	60322-60323	13781	0		Peak Demand for Monitored Data Set 7			F120	R	
EBA3-EBA4	60324-60325	13782	0		Coincident Demand for Monitored Data Set 7			F120	R	
EBA5-EBA7	60326-60328	13783	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
EBA9	60329	13784	0		Reserved			F51	R	
EBA9-EBAA	60330-60331	13785	0		Cumulative Demand for Monitored Data Set 7			F52	R	
EBAB-EBAC	60332-60333	13786	0		Accumulator for Monitored Data Set 8			F64	R	
EBAD-EBAE	60334-60335	13787	0		Peak Demand for Monitored Data Set 8			F120	R	
EBAF-EBB0	60336-60337	13788	0		Coincident Demand for Monitored Data Set 8			F120	R	
EBB1-EBB3	60338-60340	13789	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
EBB5	60341	13790	0		Reserved			F51	R	
EBB5-EBB6	60342-60343	13791	0		Cumulative Demand for Monitored Data Set 8			F52	R	
EBB7-EBB8	60344-60345	13792	0		Accumulator for Monitored Data Set 9			F64	R	
EBB9-EBBA	60346-60347	13793	0		Peak Demand for Monitored Data Set 9			F120	R	
EBBB-EBBC	60348-60349	13794	0		Coincident Demand for Monitored Data Set 9			F120	R	
EBBD-EBBF	60350-60352	13795	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
EBC1	60353	13796	0		Reserved			F51	R	
EBC1-EBC2	60354-60355	13797	0		Cumulative Demand for Monitored Data Set 9			F52	R	
EBC3-EBC4	60356-60357	13798	0		Accumulator for Monitored Data Set 10			F64	R	
EBC5-EBC6	60358-60359	13799	0		Peak Demand for Monitored Data Set 10			F120	R	
EBC7-EBC8	60360-60361	13800	0		Coincident Demand for Monitored Data Set 10			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EBC9-EBCB	60362-60364	13801	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
EBCD	60365	13802	0		Reserved			F51	R	
EBCD-EBCE	60366-60367	13803	0		Cumulative Demand for Monitored Data Set 10			F52	R	
EBCF-EBD0	60368-60369	13804	0		Accumulator for Monitored Data Set 11			F64	R	
EBD1-EBD2	60370-60371	13805	0		Peak Demand for Monitored Data Set 11			F120	R	
EBD3-EBD4	60372-60373	13806	0		Coincident Demand for Monitored Data Set 11			F120	R	
EBD5-EBD7	60374-60376	13807	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
EBD9	60377	13808	0		Reserved			F51	R	
EBD9-EBDA	60378-60379	13809	0		Cumulative Demand for Monitored Data Set 11			F52	R	
EBDB-EBDC	60380-60381	13810	0		Accumulator for Monitored Data Set 12			F64	R	
EBDD-EBDE	60382-60383	13811	0		Peak Demand for Monitored Data Set 12			F120	R	
EBDF-EBE0	60384-60385	13812	0		Coincident Demand for Monitored Data Set 12			F120	R	
EBE1-EBE3	60386-60388	13813	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
EBE5	60389	13814	0		Reserved			F51	R	
EBE5-EBE6	60390-60391	13815	0		Cumulative Demand for Monitored Data Set 12			F52	R	
EBE7-EBE8	60392-60393	13816	0		Accumulator for Monitored Data Set 13			F64	R	
EBE9-EBEA	60394-60395	13817	0		Peak Demand for Monitored Data Set 13			F120	R	
EBEB-EBEC	60396-60397	13818	0		Coincident Demand for Monitored Data Set 13			F120	R	
EBED-EBEF	60398-60400	13819	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
EBF1	60401	13820	0		Reserved			F51	R	
EBF1-EBF2	60402-60403	13821	0		Cumulative Demand for Monitored Data Set 13			F52	R	
EBF3-EBF4	60404-60405	13822	0		Accumulator for Monitored Data Set 14			F64	R	
EBF5-EBF6	60406-60407	13823	0		Peak Demand for Monitored Data Set 14			F120	R	
EBF7-EBF8	60408-60409	13824	0		Coincident Demand for Monitored Data Set 14			F120	R	
EBF9-EBFB	60410-60412	13825	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
EBFD	60413	13826	0		Reserved			F51	R	
EBFD-EBFE	60414-60415	13827	0		Cumulative Demand for Monitored Data Set 14			F52	R	
EBFF-EC00	60416-60417	13828	0		Accumulator for Monitored Data Set 15			F64	R	
EC01-EC02	60418-60419	13829	0		Peak Demand for Monitored Data Set 15			F120	R	
EC03-EC04	60420-60421	13830	0		Coincident Demand for Monitored Data Set 15			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EC05-EC07	60422-60424	13831	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
EC09	60425	13832	0		Reserved			F51	R	
EC09-EC0A	60426-60427	13833	0		Cumulative Demand for Monitored Data Set 15			F52	R	
EC0B-EC0C	60428-60429	13834	0		Accumulator for Monitored Data Set 16			F64	R	
EC0D-EC0E	60430-60431	13835	0		Peak Demand for Monitored Data Set 16			F120	R	
EC0F-EC10	60432-60433	13836	0		Coincident Demand for Monitored Data Set 16			F120	R	
EC11-EC13	60434-60436	13837	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
EC15	60437	13838	0		Reserved			F51	R	
EC15-EC16	60438-60439	13839	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Season Tier 1					
EC17-EC18	60440-60441	13840	0		Accumulator for Monitored Data Set 1			F64	R	
EC19-EC1A	60442-60443	13841	0		Peak Demand for Monitored Data Set 1			F120	R	
EC1B-EC1C	60444-60445	13842	0		Coincident Demand for Monitored Data Set 1			F120	R	
EC1D-EC1F	60446-60448	13843	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
EC21	60449	13844	0		Reserved			F51	R	
EC21-EC22	60450-60451	13845	0		Cumulative Demand for Monitored Data Set 1			F52	R	
EC23-EC24	60452-60453	13846	0		Accumulator for Monitored Data Set 2			F64	R	
EC25-EC26	60454-60455	13847	0		Peak Demand for Monitored Data Set 2			F120	R	
EC27-EC28	60456-60457	13848	0		Coincident Demand for Monitored Data Set 2			F120	R	
EC29-EC2B	60458-60460	13849	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
EC2D	60461	13850	0		Reserved			F51	R	
EC2D-EC2E	60462-60463	13851	0		Cumulative Demand for Monitored Data Set 2			F52	R	
EC2F-EC30	60464-60465	13852	0		Accumulator for Monitored Data Set 3			F64	R	
EC31-EC32	60466-60467	13853	0		Peak Demand for Monitored Data Set 3			F120	R	
EC33-EC34	60468-60469	13854	0		Coincident Demand for Monitored Data Set 3			F120	R	
EC35-EC37	60470-60472	13855	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
EC39	60473	13856	0		Reserved			F51	R	
EC39-EC3A	60474-60475	13857	0		Cumulative Demand for Monitored Data Set 3			F52	R	
EC3B-EC3C	60476-60477	13858	0		Accumulator for Monitored Data Set 4			F64	R	
EC3D-EC3E	60478-60479	13859	0		Peak Demand for Monitored Data Set 4			F120	R	
EC3F-EC40	60480-60481	13860	0		Coincident Demand for Monitored Data Set 4			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EC41-EC43	60482-60484	13861	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
EC45	60485	13862	0		Reserved			F51	R	
EC45-EC46	60486-60487	13863	0		Cumulative Demand for Monitored Data Set 4			F52	R	
EC47-EC48	60488-60489	13864	0		Accumulator for Monitored Data Set 5			F64	R	
EC49-EC4A	60490-60491	13865	0		Peak Demand for Monitored Data Set 5			F120	R	
EC4B-EC4C	60492-60493	13866	0		Coincident Demand for Monitored Data Set 5			F120	R	
EC4D-EC4F	60494-60496	13867	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
EC51	60497	13868	0		Reserved			F51	R	
EC51-EC52	60498-60499	13869	0		Cumulative Demand for Monitored Data Set 5			F52	R	
EC53-EC54	60500-60501	13870	0		Accumulator for Monitored Data Set 6			F64	R	
EC55-EC56	60502-60503	13871	0		Peak Demand for Monitored Data Set 6			F120	R	
EC57-EC58	60504-60505	13872	0		Coincident Demand for Monitored Data Set 6			F120	R	
EC59-EC5B	60506-60508	13873	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
EC5D	60509	13874	0		Reserved			F51	R	
EC5D-EC5E	60510-60511	13875	0		Cumulative Demand for Monitored Data Set 6			F52	R	
EC5F-EC60	60512-60513	13876	0		Accumulator for Monitored Data Set 7			F64	R	
EC61-EC62	60514-60515	13877	0		Peak Demand for Monitored Data Set 7			F120	R	
EC63-EC64	60516-60517	13878	0		Coincident Demand for Monitored Data Set 7			F120	R	
EC65-EC67	60518-60520	13879	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
EC69	60521	13880	0		Reserved			F51	R	
EC69-EC6A	60522-60523	13881	0		Cumulative Demand for Monitored Data Set 7			F52	R	
EC6B-EC6C	60524-60525	13882	0		Accumulator for Monitored Data Set 8			F64	R	
EC6D-EC6E	60526-60527	13883	0		Peak Demand for Monitored Data Set 8			F120	R	
EC6F-EC70	60528-60529	13884	0		Coincident Demand for Monitored Data Set 8			F120	R	
EC71-EC73	60530-60532	13885	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
EC75	60533	13886	0		Reserved			F51	R	
EC75-EC76	60534-60535	13887	0		Cumulative Demand for Monitored Data Set 8			F52	R	
EC77-EC78	60536-60537	13888	0		Accumulator for Monitored Data Set 9			F64	R	
EC79-EC7A	60538-60539	13889	0		Peak Demand for Monitored Data Set 9			F120	R	
EC7B-EC7C	60540-60541	13890	0		Coincident Demand for Monitored Data Set 9			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EC7D-EC7F	60542-60544	13891	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
EC81	60545	13892	0		Reserved			F51	R	
EC81-EC82	60546-60547	13893	0		Cumulative Demand for Monitored Data Set 9			F52	R	
EC83-EC84	60548-60549	13894	0		Accumulator for Monitored Data Set 10			F64	R	
EC85-EC86	60550-60551	13895	0		Peak Demand for Monitored Data Set 10			F120	R	
EC87-EC88	60552-60553	13896	0		Coincident Demand for Monitored Data Set 10			F120	R	
EC89-EC8B	60554-60556	13897	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
EC8D	60557	13898	0		Reserved			F51	R	
EC8D-EC8E	60558-60559	13899	0		Cumulative Demand for Monitored Data Set 10			F52	R	
EC8F-EC90	60560-60561	13900	0		Accumulator for Monitored Data Set 11			F64	R	
EC91-EC92	60562-60563	13901	0		Peak Demand for Monitored Data Set 11			F120	R	
EC93-EC94	60564-60565	13902	0		Coincident Demand for Monitored Data Set 11			F120	R	
EC95-EC97	60566-60568	13903	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
EC99	60569	13904	0		Reserved			F51	R	
EC99-EC9A	60570-60571	13905	0		Cumulative Demand for Monitored Data Set 11			F52	R	
EC9B-EC9C	60572-60573	13906	0		Accumulator for Monitored Data Set 12			F64	R	
EC9D-EC9E	60574-60575	13907	0		Peak Demand for Monitored Data Set 12			F120	R	
EC9F-ECA0	60576-60577	13908	0		Coincident Demand for Monitored Data Set 12			F120	R	
ECA1-ECA3	60578-60580	13909	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
ECA5	60581	13910	0		Reserved			F51	R	
ECA5-ECA6	60582-60583	13911	0		Cumulative Demand for Monitored Data Set 12			F52	R	
ECA7-ECA8	60584-60585	13912	0		Accumulator for Monitored Data Set 13			F64	R	
ECA9-ECAA	60586-60587	13913	0		Peak Demand for Monitored Data Set 13			F120	R	
ECAB-ECAC	60588-60589	13914	0		Coincident Demand for Monitored Data Set 13			F120	R	
ECAD-ECAF	60590-60592	13915	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
ECB1	60593	13916	0		Reserved			F51	R	
ECB1-ECB2	60594-60595	13917	0		Cumulative Demand for Monitored Data Set 13			F52	R	
ECB3-ECB4	60596-60597	13918	0		Accumulator for Monitored Data Set 14			F64	R	
ECB5-ECB6	60598-60599	13919	0		Peak Demand for Monitored Data Set 14			F120	R	
ECB7-ECB8	60600-60601	13920	0		Coincident Demand for Monitored Data Set 14			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
ECB9-ECBB	60602-60604	13921	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
ECBD	60605	13922	0		Reserved			F51	R	
ECBD-ECBE	60606-60607	13923	0		Cumulative Demand for Monitored Data Set 14			F52	R	
ECBF-ECC0	60608-60609	13924	0		Accumulator for Monitored Data Set 15			F64	R	
ECC1-ECC2	60610-60611	13925	0		Peak Demand for Monitored Data Set 15			F120	R	
ECC3-ECC4	60612-60613	13926	0		Coincident Demand for Monitored Data Set 15			F120	R	
ECC5-ECC7	60614-60616	13927	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
ECC9	60617	13928	0		Reserved			F51	R	
ECC9-ECCA	60618-60619	13929	0		Cumulative Demand for Monitored Data Set 15			F52	R	
ECCB-ECCC	60620-60621	13930	0		Accumulator for Monitored Data Set 16			F64	R	
ECCD-ECCE	60622-60623	13931	0		Peak Demand for Monitored Data Set 16			F120	R	
ECCF-ECD0	60624-60625	13932	0		Coincident Demand for Monitored Data Set 16			F120	R	
ECD1-ECD3	60626-60628	13933	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
ECD5	60629	13934	0		Reserved			F51	R	
ECD5-ECD6	60630-60631	13935	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Season Tier 2					
ECD7-ECD8	60632-60633	13936	0		Accumulator for Monitored Data Set 1			F64	R	
ECD9-ECDA	60634-60635	13937	0		Peak Demand for Monitored Data Set 1			F120	R	
ECDB-ECDC	60636-60637	13938	0		Coincident Demand for Monitored Data Set 1			F120	R	
ECDD-ECDF	60638-60640	13939	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
ECE1	60641	13940	0		Reserved			F51	R	
ECE1-ECE2	60642-60643	13941	0		Cumulative Demand for Monitored Data Set 1			F52	R	
ECE3-ECE4	60644-60645	13942	0		Accumulator for Monitored Data Set 2			F64	R	
ECE5-ECE6	60646-60647	13943	0		Peak Demand for Monitored Data Set 2			F120	R	
ECE7-ECE8	60648-60649	13944	0		Coincident Demand for Monitored Data Set 2			F120	R	
ECE9-ECEB	60650-60652	13945	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
ECED	60653	13946	0		Reserved			F51	R	
ECED-ECEE	60654-60655	13947	0		Cumulative Demand for Monitored Data Set 2			F52	R	
ECEF-ECF0	60656-60657	13948	0		Accumulator for Monitored Data Set 3			F64	R	
ECF1-ECF2	60658-60659	13949	0		Peak Demand for Monitored Data Set 3			F120	R	
ECF3-ECF4	60660-60661	13950	0		Coincident Demand for Monitored Data Set 3			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
ECF5-ECF7	60662-60664	13951	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
ECF9	60665	13952	0		Reserved			F51	R	
ECF9-ECFA	60666-60667	13953	0		Cumulative Demand for Monitored Data Set 3			F52	R	
ECFB-ECFC	60668-60669	13954	0		Accumulator for Monitored Data Set 4			F64	R	
ECFD-ECFE	60670-60671	13955	0		Peak Demand for Monitored Data Set 4			F120	R	
ECFF-ED00	60672-60673	13956	0		Coincident Demand for Monitored Data Set 4			F120	R	
ED01-ED03	60674-60676	13957	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
ED05	60677	13958	0		Reserved			F51	R	
ED05-ED06	60678-60679	13959	0		Cumulative Demand for Monitored Data Set 4			F52	R	
ED07-ED08	60680-60681	13960	0		Accumulator for Monitored Data Set 5			F64	R	
ED09-ED0A	60682-60683	13961	0		Peak Demand for Monitored Data Set 5			F120	R	
ED0B-ED0C	60684-60685	13962	0		Coincident Demand for Monitored Data Set 5			F120	R	
ED0D-ED0F	60686-60688	13963	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
ED11	60689	13964	0		Reserved			F51	R	
ED11-ED12	60690-60691	13965	0		Cumulative Demand for Monitored Data Set 5			F52	R	
ED13-ED14	60692-60693	13966	0		Accumulator for Monitored Data Set 6			F64	R	
ED15-ED16	60694-60695	13967	0		Peak Demand for Monitored Data Set 6			F120	R	
ED17-ED18	60696-60697	13968	0		Coincident Demand for Monitored Data Set 6			F120	R	
ED19-ED1B	60698-60700	13969	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
ED1D	60701	13970	0		Reserved			F51	R	
ED1D-ED1E	60702-60703	13971	0		Cumulative Demand for Monitored Data Set 6			F52	R	
ED1F-ED20	60704-60705	13972	0		Accumulator for Monitored Data Set 7			F64	R	
ED21-ED22	60706-60707	13973	0		Peak Demand for Monitored Data Set 7			F120	R	
ED23-ED24	60708-60709	13974	0		Coincident Demand for Monitored Data Set 7			F120	R	
ED25-ED27	60710-60712	13975	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
ED29	60713	13976	0		Reserved			F51	R	
ED29-ED2A	60714-60715	13977	0		Cumulative Demand for Monitored Data Set 7			F52	R	
ED2B-ED2C	60716-60717	13978	0		Accumulator for Monitored Data Set 8			F64	R	
ED2D-ED2E	60718-60719	13979	0		Peak Demand for Monitored Data Set 8			F120	R	
ED2F-ED30	60720-60721	13980	0		Coincident Demand for Monitored Data Set 8			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
ED31-ED33	60722-60724	13981	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
ED35	60725	13982	0		Reserved			F51	R	
ED35-ED36	60726-60727	13983	0		Cumulative Demand for Monitored Data Set 8			F52	R	
ED37-ED38	60728-60729	13984	0		Accumulator for Monitored Data Set 9			F64	R	
ED39-ED3A	60730-60731	13985	0		Peak Demand for Monitored Data Set 9			F120	R	
ED3B-ED3C	60732-60733	13986	0		Coincident Demand for Monitored Data Set 9			F120	R	
ED3D-ED3F	60734-60736	13987	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
ED41	60737	13988	0		Reserved			F51	R	
ED41-ED42	60738-60739	13989	0		Cumulative Demand for Monitored Data Set 9			F52	R	
ED43-ED44	60740-60741	13990	0		Accumulator for Monitored Data Set 10			F64	R	
ED45-ED46	60742-60743	13991	0		Peak Demand for Monitored Data Set 10			F120	R	
ED47-ED48	60744-60745	13992	0		Coincident Demand for Monitored Data Set 10			F120	R	
ED49-ED4B	60746-60748	13993	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
ED4D	60749	13994	0		Reserved			F51	R	
ED4D-ED4E	60750-60751	13995	0		Cumulative Demand for Monitored Data Set 10			F52	R	
ED4F-ED50	60752-60753	13996	0		Accumulator for Monitored Data Set 11			F64	R	
ED51-ED52	60754-60755	13997	0		Peak Demand for Monitored Data Set 11			F120	R	
ED53-ED54	60756-60757	13998	0		Coincident Demand for Monitored Data Set 11			F120	R	
ED55-ED57	60758-60760	13999	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
ED59	60761	14000	0		Reserved			F51	R	
ED59-ED5A	60762-60763	14001	0		Cumulative Demand for Monitored Data Set 11			F52	R	
ED5B-ED5C	60764-60765	14002	0		Accumulator for Monitored Data Set 12			F64	R	
ED5D-ED5E	60766-60767	14003	0		Peak Demand for Monitored Data Set 12			F120	R	
ED5F-ED60	60768-60769	14004	0		Coincident Demand for Monitored Data Set 12			F120	R	
ED61-ED63	60770-60772	14005	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
ED65	60773	14006	0		Reserved			F51	R	
ED65-ED66	60774-60775	14007	0		Cumulative Demand for Monitored Data Set 12			F52	R	
ED67-ED68	60776-60777	14008	0		Accumulator for Monitored Data Set 13			F64	R	
ED69-ED6A	60778-60779	14009	0		Peak Demand for Monitored Data Set 13			F120	R	
ED6B-ED6C	60780-60781	14010	0		Coincident Demand for Monitored Data Set 13			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
ED6D-ED6F	60782-60784	14011	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
ED71	60785	14012	0		Reserved			F51	R	
ED71-ED72	60786-60787	14013	0		Cumulative Demand for Monitored Data Set 13			F52	R	
ED73-ED74	60788-60789	14014	0		Accumulator for Monitored Data Set 14			F64	R	
ED75-ED76	60790-60791	14015	0		Peak Demand for Monitored Data Set 14			F120	R	
ED77-ED78	60792-60793	14016	0		Coincident Demand for Monitored Data Set 14			F120	R	
ED79-ED7B	60794-60796	14017	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
ED7D	60797	14018	0		Reserved			F51	R	
ED7D-ED7E	60798-60799	14019	0		Cumulative Demand for Monitored Data Set 14			F52	R	
ED7F-ED80	60800-60801	14020	0		Accumulator for Monitored Data Set 15			F64	R	
ED81-ED82	60802-60803	14021	0		Peak Demand for Monitored Data Set 15			F120	R	
ED83-ED84	60804-60805	14022	0		Coincident Demand for Monitored Data Set 15			F120	R	
ED85-ED87	60806-60808	14023	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
ED89	60809	14024	0		Reserved			F51	R	
ED89-ED8A	60810-60811	14025	0		Cumulative Demand for Monitored Data Set 15			F52	R	
ED8B-ED8C	60812-60813	14026	0		Accumulator for Monitored Data Set 16			F64	R	
ED8D-ED8E	60814-60815	14027	0		Peak Demand for Monitored Data Set 16			F120	R	
ED8F-ED90	60816-60817	14028	0		Coincident Demand for Monitored Data Set 16			F120	R	
ED91-ED93	60818-60820	14029	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
ED95	60821	14030	0		Reserved			F51	R	
ED95-ED96	60822-60823	14031	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Season Tier 3					
ED97-ED98	60824-60825	14032	0		Accumulator for Monitored Data Set 1			F64	R	
ED99-ED9A	60826-60827	14033	0		Peak Demand for Monitored Data Set 1			F120	R	
ED9B-ED9C	60828-60829	14034	0		Coincident Demand for Monitored Data Set 1			F120	R	
ED9D-ED9F	60830-60832	14035	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
EDA1	60833	14036	0		Reserved			F51	R	
EDA1-EDA2	60834-60835	14037	0		Cumulative Demand for Monitored Data Set 1			F52	R	
EDA3-EDA4	60836-60837	14038	0		Accumulator for Monitored Data Set 2			F64	R	
EDA5-EDA6	60838-60839	14039	0		Peak Demand for Monitored Data Set 2			F120	R	
EDA7-EDA8	60840-60841	14040	0		Coincident Demand for Monitored Data Set 2			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EDA9-EDAB	60842-60844	14041	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
EDAD	60845	14042	0		Reserved			F51	R	
EDAD-EDAE	60846-60847	14043	0		Cumulative Demand for Monitored Data Set 2			F52	R	
EDAF-EDB0	60848-60849	14044	0		Accumulator for Monitored Data Set 3			F64	R	
EDB1-EDB2	60850-60851	14045	0		Peak Demand for Monitored Data Set 3			F120	R	
EDB3-EDB4	60852-60853	14046	0		Coincident Demand for Monitored Data Set 3			F120	R	
EDB5-EDB7	60854-60856	14047	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
EDB9	60857	14048	0		Reserved			F51	R	
EDB9-EDBA	60858-60859	14049	0		Cumulative Demand for Monitored Data Set 3			F52	R	
EDBB-EDBC	60860-60861	14050	0		Accumulator for Monitored Data Set 4			F64	R	
EDBD-EDBE	60862-60863	14051	0		Peak Demand for Monitored Data Set 4			F120	R	
EDBF-EDC0	60864-60865	14052	0		Coincident Demand for Monitored Data Set 4			F120	R	
EDC1-EDC3	60866-60868	14053	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
EDC5	60869	14054	0		Reserved			F51	R	
EDC5-EDC6	60870-60871	14055	0		Cumulative Demand for Monitored Data Set 4			F52	R	
EDC7-EDC8	60872-60873	14056	0		Accumulator for Monitored Data Set 5			F64	R	
EDC9-EDCA	60874-60875	14057	0		Peak Demand for Monitored Data Set 5			F120	R	
EDCB-EDCC	60876-60877	14058	0		Coincident Demand for Monitored Data Set 5			F120	R	
EDCD-EDCF	60878-60880	14059	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
EDD1	60881	14060	0		Reserved			F51	R	
EDD1-EDD2	60882-60883	14061	0		Cumulative Demand for Monitored Data Set 5			F52	R	
EDD3-EDD4	60884-60885	14062	0		Accumulator for Monitored Data Set 6			F64	R	
EDD5-EDD6	60886-60887	14063	0		Peak Demand for Monitored Data Set 6			F120	R	
EDD7-EDD8	60888-60889	14064	0		Coincident Demand for Monitored Data Set 6			F120	R	
EDD9-EDDB	60890-60892	14065	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
EDDD	60893	14066	0		Reserved			F51	R	
EDDD-EDDE	60894-60895	14067	0		Cumulative Demand for Monitored Data Set 6			F52	R	
EDDF-EDE0	60896-60897	14068	0		Accumulator for Monitored Data Set 7			F64	R	
EDE1-EDE2	60898-60899	14069	0		Peak Demand for Monitored Data Set 7			F120	R	
EDE3-EDE4	60900-60901	14070	0		Coincident Demand for Monitored Data Set 7			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EDE5-EDE7	60902-60904	14071	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
EDE9	60905	14072	0		Reserved			F51	R	
EDE9-EDEA	60906-60907	14073	0		Cumulative Demand for Monitored Data Set 7			F52	R	
EDEB-EDEC	60908-60909	14074	0		Accumulator for Monitored Data Set 8			F64	R	
EDED-EDEE	60910-60911	14075	0		Peak Demand for Monitored Data Set 8			F120	R	
EDEF-EDF0	60912-60913	14076	0		Coincident Demand for Monitored Data Set 8			F120	R	
EDF1-EDF3	60914-60916	14077	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
EDF5	60917	14078	0		Reserved			F51	R	
EDF5-EDF6	60918-60919	14079	0		Cumulative Demand for Monitored Data Set 8			F52	R	
EDF7-EDF8	60920-60921	14080	0		Accumulator for Monitored Data Set 9			F64	R	
EDF9-EDFA	60922-60923	14081	0		Peak Demand for Monitored Data Set 9			F120	R	
EDFB-EDFC	60924-60925	14082	0		Coincident Demand for Monitored Data Set 9			F120	R	
EDFD-EDFF	60926-60928	14083	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
EE01	60929	14084	0		Reserved			F51	R	
EE01-EE02	60930-60931	14085	0		Cumulative Demand for Monitored Data Set 9			F52	R	
EE03-EE04	60932-60933	14086	0		Accumulator for Monitored Data Set 10			F64	R	
EE05-EE06	60934-60935	14087	0		Peak Demand for Monitored Data Set 10			F120	R	
EE07-EE08	60936-60937	14088	0		Coincident Demand for Monitored Data Set 10			F120	R	
EE09-EE0B	60938-60940	14089	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
EE0D	60941	14090	0		Reserved			F51	R	
EE0D-EE0E	60942-60943	14091	0		Cumulative Demand for Monitored Data Set 10			F52	R	
EE0F-EE10	60944-60945	14092	0		Accumulator for Monitored Data Set 11			F64	R	
EE11-EE12	60946-60947	14093	0		Peak Demand for Monitored Data Set 11			F120	R	
EE13-EE14	60948-60949	14094	0		Coincident Demand for Monitored Data Set 11			F120	R	
EE15-EE17	60950-60952	14095	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
EE19	60953	14096	0		Reserved			F51	R	
EE19-EE1A	60954-60955	14097	0		Cumulative Demand for Monitored Data Set 11			F52	R	
EE1B-EE1C	60956-60957	14098	0		Accumulator for Monitored Data Set 12			F64	R	
EE1D-EE1E	60958-60959	14099	0		Peak Demand for Monitored Data Set 12			F120	R	
EE1F-EE20	60960-60961	14100	0		Coincident Demand for Monitored Data Set 12			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EE21-EE23	60962-60964	14101	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
EE25	60965	14102	0		Reserved			F51	R	
EE25-EE26	60966-60967	14103	0		Cumulative Demand for Monitored Data Set 12			F52	R	
EE27-EE28	60968-60969	14104	0		Accumulator for Monitored Data Set 13			F64	R	
EE29-EE2A	60970-60971	14105	0		Peak Demand for Monitored Data Set 13			F120	R	
EE2B-EE2C	60972-60973	14106	0		Coincident Demand for Monitored Data Set 13			F120	R	
EE2D-EE2F	60974-60976	14107	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
EE31	60977	14108	0		Reserved			F51	R	
EE31-EE32	60978-60979	14109	0		Cumulative Demand for Monitored Data Set 13			F52	R	
EE33-EE34	60980-60981	14110	0		Accumulator for Monitored Data Set 14			F64	R	
EE35-EE36	60982-60983	14111	0		Peak Demand for Monitored Data Set 14			F120	R	
EE37-EE38	60984-60985	14112	0		Coincident Demand for Monitored Data Set 14			F120	R	
EE39-EE3B	60986-60988	14113	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
EE3D	60989	14114	0		Reserved			F51	R	
EE3D-EE3E	60990-60991	14115	0		Cumulative Demand for Monitored Data Set 14			F52	R	
EE3F-EE40	60992-60993	14116	0		Accumulator for Monitored Data Set 15			F64	R	
EE41-EE42	60994-60995	14117	0		Peak Demand for Monitored Data Set 15			F120	R	
EE43-EE44	60996-60997	14118	0		Coincident Demand for Monitored Data Set 15			F120	R	
EE45-EE47	60998-61000	14119	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
EE49	61001	14120	0		Reserved			F51	R	
EE49-EE4A	61002-61003	14121	0		Cumulative Demand for Monitored Data Set 15			F52	R	
EE4B-EE4C	61004-61005	14122	0		Accumulator for Monitored Data Set 16			F64	R	
EE4D-EE4E	61006-61007	14123	0		Peak Demand for Monitored Data Set 16			F120	R	
EE4F-EE50	61008-61009	14124	0		Coincident Demand for Monitored Data Set 16			F120	R	
EE51-EE53	61010-61012	14125	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
EE55	61013	14126	0		Reserved			F51	R	
EE55-EE56	61014-61015	14127	0		Cumulative Demand for Monitored Data Set 16			F52	R	
					Prior Season Tier 4					
EE57-EE58	61016-61017	14128	0		Accumulator for Monitored Data Set 1			F64	R	
EE59-EE5A	61018-61019	14129	0		Peak Demand for Monitored Data Set 1			F120	R	
EE5B-EE5C	61020-61021	14130	0		Coincident Demand for Monitored Data Set 1			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EE5D-EE5F	61022-61024	14131	0		Timestamp for Monitored Data Set 1 Peak & Coincident Demand			F122	R	
EE61	61025	14132	0		Reserved			F51	R	
EE61-EE62	61026-61027	14133	0		Cumulative Demand for Monitored Data Set 1			F52	R	
EE63-EE64	61028-61029	14134	0		Accumulator for Monitored Data Set 2			F64	R	
EE65-EE66	61030-61031	14135	0		Peak Demand for Monitored Data Set 2			F120	R	
EE67-EE68	61032-61033	14136	0		Coincident Demand for Monitored Data Set 2			F120	R	
EE69-EE6B	61034-61036	14137	0		Timestamp for Monitored Data Set 2 Peak & Coincident Demand			F122	R	
EE6D	61037	14138	0		Reserved			F51	R	
EE6D-EE6E	61038-61039	14139	0		Cumulative Demand for Monitored Data Set 2			F52	R	
EE6F-EE70	61040-61041	14140	0		Accumulator for Monitored Data Set 3			F64	R	
EE71-EE72	61042-61043	14141	0		Peak Demand for Monitored Data Set 3			F120	R	
EE73-EE74	61044-61045	14142	0		Coincident Demand for Monitored Data Set 3			F120	R	
EE75-EE77	61046-61048	14143	0		Timestamp for Monitored Data Set 3 Peak & Coincident Demand			F122	R	
EE79	61049	14144	0		Reserved			F51	R	
EE79-EE7A	61050-61051	14145	0		Cumulative Demand for Monitored Data Set 3			F52	R	
EE7B-EE7C	61052-61053	14146	0		Accumulator for Monitored Data Set 4			F64	R	
EE7D-EE7E	61054-61055	14147	0		Peak Demand for Monitored Data Set 4			F120	R	
EE7F-EE80	61056-61057	14148	0		Coincident Demand for Monitored Data Set 4			F120	R	
EE81-EE83	61058-61060	14149	0		Timestamp for Monitored Data Set 4 Peak & Coincident Demand			F122	R	
EE85	61061	14150	0		Reserved			F51	R	
EE85-EE86	61062-61063	14151	0		Cumulative Demand for Monitored Data Set 4			F52	R	
EE87-EE88	61064-61065	14152	0		Accumulator for Monitored Data Set 5			F64	R	
EE89-EE8A	61066-61067	14153	0		Peak Demand for Monitored Data Set 5			F120	R	
EE8B-EE8C	61068-61069	14154	0		Coincident Demand for Monitored Data Set 5			F120	R	
EE8D-EE8F	61070-61072	14155	0		Timestamp for Monitored Data Set 5 Peak & Coincident Demand			F122	R	
EE91	61073	14156	0		Reserved			F51	R	
EE91-EE92	61074-61075	14157	0		Cumulative Demand for Monitored Data Set 5			F52	R	
EE93-EE94	61076-61077	14158	0		Accumulator for Monitored Data Set 6			F64	R	
EE95-EE96	61078-61079	14159	0		Peak Demand for Monitored Data Set 6			F120	R	
EE97-EE98	61080-61081	14160	0		Coincident Demand for Monitored Data Set 6			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EE99-EE9B	61082-61084	14161	0		Timestamp for Monitored Data Set 6 Peak & Coincident Demand			F122	R	
EE9D	61085	14162	0		Reserved			F51	R	
EE9D-EE9E	61086-61087	14163	0		Cumulative Demand for Monitored Data Set 6			F52	R	
EE9F-EEA0	61088-61089	14164	0		Accumulator for Monitored Data Set 7			F64	R	
EEA1-EEA2	61090-61091	14165	0		Peak Demand for Monitored Data Set 7			F120	R	
EEA3-EEA4	61092-61093	14166	0		Coincident Demand for Monitored Data Set 7			F120	R	
EEA5-EEA7	61094-61096	14167	0		Timestamp for Monitored Data Set 7 Peak & Coincident Demand			F122	R	
EEA9	61097	14168	0		Reserved			F51	R	
EEA9-EEAA	61098-61099	14169	0		Cumulative Demand for Monitored Data Set 7			F52	R	
EEAB-EEAC	61100-61101	14170	0		Accumulator for Monitored Data Set 8			F64	R	
EEAD-EEAE	61102-61103	14171	0		Peak Demand for Monitored Data Set 8			F120	R	
EEAF-EEB0	61104-61105	14172	0		Coincident Demand for Monitored Data Set 8			F120	R	
EEB1-EEB3	61106-61108	14173	0		Timestamp for Monitored Data Set 8 Peak & Coincident Demand			F122	R	
EEB5	61109	14174	0		Reserved			F51	R	
EEB5-EEB6	61110-61111	14175	0		Cumulative Demand for Monitored Data Set 8			F52	R	
EEB7-EEB8	61112-61113	14176	0		Accumulator for Monitored Data Set 9			F64	R	
EEB9-EEBA	61114-61115	14177	0		Peak Demand for Monitored Data Set 9			F120	R	
EEBB-EEBC	61116-61117	14178	0		Coincident Demand for Monitored Data Set 9			F120	R	
EEBD-EEBF	61118-61120	14179	0		Timestamp for Monitored Data Set 9 Peak & Coincident Demand			F122	R	
EEC1	61121	14180	0		Reserved			F51	R	
EEC1-EEC2	61122-61123	14181	0		Cumulative Demand for Monitored Data Set 9			F52	R	
EEC3-EEC4	61124-61125	14182	0		Accumulator for Monitored Data Set 10			F64	R	
EEC5-EEC6	61126-61127	14183	0		Peak Demand for Monitored Data Set 10			F120	R	
EEC7-EEC8	61128-61129	14184	0		Coincident Demand for Monitored Data Set 10			F120	R	
EEC9-EECB	61130-61132	14185	0		Timestamp for Monitored Data Set 10 Peak & Coincident Demand			F122	R	
EECD	61133	14186	0		Reserved			F51	R	
EECD-EECE	61134-61135	14187	0		Cumulative Demand for Monitored Data Set 10			F52	R	
EECF-EED0	61136-61137	14188	0		Accumulator for Monitored Data Set 11			F64	R	
EED1-EED2	61138-61139	14189	0		Peak Demand for Monitored Data Set 11			F120	R	
EED3-EED4	61140-61141	14190	0		Coincident Demand for Monitored Data Set 11			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EED5-EED7	61142-61144	14191	0		Timestamp for Monitored Data Set 11 Peak & Coincident Demand			F122	R	
EED9	61145	14192	0		Reserved			F51	R	
EED9-EEDA	61146-61147	14193	0		Cumulative Demand for Monitored Data Set 11			F52	R	
EEDB-EEDC	61148-61149	14194	0		Accumulator for Monitored Data Set 12			F64	R	
EEDD-EEDE	61150-61151	14195	0		Peak Demand for Monitored Data Set 12			F120	R	
EEDF-EEEE	61152-61153	14196	0		Coincident Demand for Monitored Data Set 12			F120	R	
EEE1-EEE3	61154-61156	14197	0		Timestamp for Monitored Data Set 12 Peak & Coincident Demand			F122	R	
EEE5	61157	14198	0		Reserved			F51	R	
EEE5-EEE6	61158-61159	14199	0		Cumulative Demand for Monitored Data Set 12			F52	R	
EEE7-EEE8	61160-61161	14200	0		Accumulator for Monitored Data Set 13			F64	R	
EEE9-EEEE	61162-61163	14201	0		Peak Demand for Monitored Data Set 13			F120	R	
EEEB-EEEC	61164-61165	14202	0		Coincident Demand for Monitored Data Set 13			F120	R	
EEED-EEEF	61166-61168	14203	0		Timestamp for Monitored Data Set 13 Peak & Coincident Demand			F122	R	
EEF1	61169	14204	0		Reserved			F51	R	
EEF1-EEF2	61170-61171	14205	0		Cumulative Demand for Monitored Data Set 13			F52	R	
EEF3-EEF4	61172-61173	14206	0		Accumulator for Monitored Data Set 14			F64	R	
EEF5-EEF6	61174-61175	14207	0		Peak Demand for Monitored Data Set 14			F120	R	
EEF7-EEF8	61176-61177	14208	0		Coincident Demand for Monitored Data Set 14			F120	R	
EEF9-EEFB	61178-61180	14209	0		Timestamp for Monitored Data Set 14 Peak & Coincident Demand			F122	R	
EEFD	61181	14210	0		Reserved			F51	R	
EEFD-EEFE	61182-61183	14211	0		Cumulative Demand for Monitored Data Set 14			F52	R	
EEFF-EF00	61184-61185	14212	0		Accumulator for Monitored Data Set 15			F64	R	
EF01-EF02	61186-61187	14213	0		Peak Demand for Monitored Data Set 15			F120	R	
EF03-EF04	61188-61189	14214	0		Coincident Demand for Monitored Data Set 15			F120	R	
EF05-EF07	61190-61192	14215	0		Timestamp for Monitored Data Set 15 Peak & Coincident Demand			F122	R	
EF09	61193	14216	0		Reserved			F51	R	
EF09-EF0A	61194-61195	14217	0		Cumulative Demand for Monitored Data Set 15			F52	R	
EF0B-EF0C	61196-61197	14218	0		Accumulator for Monitored Data Set 16			F64	R	
EF0D-EF0E	61198-61199	14219	0		Peak Demand for Monitored Data Set 16			F120	R	
EF0F-EF10	61200-61201	14220	0		Coincident Demand for Monitored Data Set 16			F120	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
EF11-EF13	61202-61204	14221	0		Timestamp for Monitored Data Set 16 Peak & Coincident Demand			F122	R	
EF15	61205	14222	0		Reserved			F51	R	
EF15-EF16	61206-61207	14223	0		Cumulative Demand for Monitored Data Set 16			F52	R	
One cycle: Extra Readings										
EF17H	61208	14248	0		One cycle Total Power Factor	3.999 / 0.000	0.001 PF	F8	R	
EF18H	61209	14249	1		One cycle Phase C Power Factor	3.999 / 0.000	0.001 PF	F8	R	
EF19H	61210	14249	2		One cycle Phase B Power Factor	3.999 / 0.000	0.001 PF	F8	R	
EF1AH	61211	14249	3		One cycle Phase A Power Factor	3.999 / 0.000	0.001 PF	F8	R	
TOU: Extra Readings										
EF1BH-EF34H	61212-61237				TOU Previous Month Scaled Energy Formats, 1-52, 2 formats per register			F65	R	
EF35H-EF4EH	61238-61263				TOU Previous Season Scaled Energy Formats, 1-52, 2 formats per register			F65	R	
EF4FH-EF56H	61264-61271				TOU Previous Month Scaled Energy IDs, 1-16, 1 ID for each data set, 2 IDs per register. 0=no scaled energy format assigned, valid settings are 1-52			F47/F49	R	
EF57H-EF5EH	61272-61279				TOU Previous Season Scaled Energy IDs, 1-16, 1 ID for each data set, 2 IDs per register. 0=no scaled energy format assigned, valid settings are 1-52.			F47/F49	R	
EF5FH-EF66H	61280-61287				TOU Previous Month coincident demand type IDs, 1-16, 1 ID for each data set, 2 IDs per register. For PF type data, ID=0, not assigned. For VAR type data, valid settings are 2,3,6,8,11,13,25,26.			F47/F49	R	
EF67H-EF6EH	61288-61295				TOU Previous Season coincident demand type IDs, 1-16, 1 ID for each data set, 2 IDs per register. For PF type data, ID=0, not assigned. For VAR type data, valid settings are 2,3,6,8,11,13,25,26.			F47/F49	R	
EF6FH	61296				TOU Previous Month Status Bits (Format is same as in holding register 0x8807)			F51	R	
EF70H	61297				TOU Previous Season Status Bits (Format is same as in holding register 0x8807)			F51	R	
EF71H-EF73H	61298-61300				Last month start time			F122	R	
EF74H-EF76H	61301-61302				Current month start time			F122	R	
EF77H-EF79H	61303-61305				Last season/week/day start time			F122	R	
EF7AH-EF7CH	61306-61308				Current season/week/day start time			F122	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
Device Hardware Information Block										
F000H-F007H	61441-61448				name of board#1			F1	R	
F001H-F00FH	61449-61456				serial number of board#1			F1	R	
F010H-F017H	61457-61464				board number of board#1			F1	R	
F018H-F01FH	61465-61472				rev of board#1			F1	R	
F020H-F027H	61473-61480				test status of board#1			F1	R	
F028H-F02FH	61481-61488				test date of board#1			F1	R	
F030H-F03FH	61489-61504				reserved					
F040H-F047H	61505-61512				name of board#2			F1	R	
F041H-F04FH	61513-61520				serial number of board#2			F1	R	
F050H-F057H	61521-61528				board number of board#2			F1	R	
F058H-F05FH	61529-61536				rev of board#2			F1	R	
F060H-F067H	61537-61544				test status of board#2			F1	R	
F068H-F06FH	61545-61552				test date of board#2			F1	R	
F070H-F07FH	61553-61568				reserved					
F080H-F087H	61569-61576				name of board#3			F1	R	
F088H-F08FH	61577-61584				serial number of board#3			F1	R	
F090H-F097H	61585-61592				board number of board#3			F1	R	
F098H-F09FH	61593-61600				rev of board#3			F1	R	
F0A0H-F0A7H	61601-61608				test status of board#3			F1	R	
F0A8H-F0AFH	61609-61616				test date of board#3			F1	R	
F0B0H-F0BFH	61617-61632				reserved					
F0C0H-F1FFH	61639-61952									
F200H-F20FH	61953-61968				compact flash card model					
F210H-F21FH	61969-61984				compact flash card serial number					
F220H-F227H	61985-61992				compact flash card firmware id			F1	R	
F228H-F22FH	61993-62000				compact flash card file partition type			F1	R	
F230H-F237H	62001-62008				cpu type			F1	R	
F238H-F23FH	62009-62016				cpu clock frequency			F1	R	
F240H-F247H	62017-62024				cpu rev			F1	R	
F248H-F24FH	62025-62032				cpu rev id			F1	R	
F250H-F257H	62033-62040				cpu platform			F1	R	
F258H-F25FH	62041-62048				cpu memory size			F1	R	
F260H-F267H	62049-62056				fpga hardware id or trace id			F1	R	
F268H-F26FH	62057-62064				fpga firmware id			F1	R	

2: Modbus Map - Input Registers

Addr. (hex)	Address(3X)	Line	Pt	DNP Obj	Description	Range	Units	Type	R/W	Notes
F270H-F277H	62065-62072				dsp runtime version			F1	R	
F278H-F27FH	62073-62080				dsp runtime buildtime			F1	R	
F280H-F287H	62081-62088				preboot version			F1	R	
F288H-F28FH	62089-62096				preboot build tune			F1	R	
F290H-F2AFH	62097-62128				uboot id user1 copy				R	
F2B0H-F2CFH	62129-62160				uboot id user2 copy				R	
F2D0H-F2EFH	62161-62192				uboot id factory copy				R	
F2F0H-F2FFH	62193-62208				linux kernel name				R	
F300H-F30FH	62209-62224				linux kernel version				R	
F310H-F317H	62225-62232				kernel module ucc dsp version			F1	R	
F318H-F31FH	62233-62240									
F320H-F32DH	62241-62254				modbus map version, disk copy			F1	R	
F32EH-F32FH	62255-62256									
F330H-F33DH	62257-62270				modbus map version, ram copy			F1	R	
F33EH-F33FH	62271-62272									
F340H-F34DH	62273-62286				apps archive version			F1	R	
F34EH-F34FH	62287-62288									
F350H-F35DH	62289-62302				apps archive buildtime			F1	R	
F35EH-F35FH	62303-62304									
F360H-F36DH	62305-62318				web archive version			F1	R	
F36EH-F36FH	62319-62320									
F370H-F37DH	62321-62334				web archive buildtime			F1	R	
F37EH-F37FH	62335-62336									
F380H-F38FH	62337-62345				MAC address for port5, ethernet0			F1	R	
F389H-F38FH	62346-62352									
F390H-F398H	62353-62361				MAC address for port6, ethernet1			F1	R	
F399H-F39FH	62362-62368									

3: Communication Data Formats

3.1: Introduction

This chapter expands upon information listed in the Nexus® 1450 meter's Modbus register map, shown in Chapter 2. Section Headings (F1, F2, etc.) refer to the value in the register map's "Type" column.

3.2: Type F1 - Null Terminated ASCII String

Length: Depends on the reading.

Each register contains two bytes. Each byte stands for an ASCII character. The printable portion of the string is terminated with a Null character (ASCII 00H). Any characters after the terminating Null character are ignored.

Example:

Registers 00001 - 00008, the Device Name, might contain the following data:

Address	00001		00002		00003		00004		00005		00006		00007		00008	
Value	3031H		3731H		204EH		6578H		7573H		2031H		3435H		3000H	
Bytes	30H	31H	37H	31H	20H	43H	65H	78H	75H	73H	20H	31H	34H	35H	30H	00H
ASCII	'0'	'1'	'7'	'1'	'	'N'	'e'	'x'	'u'	's'	'	'1'	'4'	'5'	'0'	Null
Register	"01"		"71"		"N"		"ex"		"us"		"1"		"45"		"0"	
String	"0171 Nexus 1450"															

3.3: Type F2 - Fixed Length ASCII String

Length: Depends on the reading.

Each register contains two bytes. Each byte stands for an ASCII character. All bytes are significant. There is no terminating character.

Example:

Registers 00073 - 00074, the Nexus® Comm Boot version number, which might contain the following data:

Address	00073		00074	
Value	3030H		3134H	
Bytes	30H	30H	31H	31H
ASCII	'0'	'0'	'1'	'1'
Register	"00"		"14"	
String	"0014"			

3.4: Type F3 - Time Stamp

Length: 4 Registers (8 bytes)

Order: Least significant byte first

Range: 2/31/9999 23:59:59.99

Unit: 10 ms

Each register contains two bytes. Each byte contains a binary number representing up to two digits in a part of date and time. The units for each byte are century, year, month, date, hour, minute, second and 10 millisecond. Hour is in 24-hour form, 00H = 0 = 12 AM, 01H = 1 = 1 AM, ..., 0BH = 11 = 11 AM, 0CH = 12 = 12 PM, 0DH = 13 = 1 PM, ..., 17H = 23 = 11 PM.

Example:

Registers 00081 - 00084, On Time, might contain the following data:

Address	00081		00082		00083		00084	
Value	140EH		0619H		0913H		3056H	
Bytes	14H	0EH	06H	19H	09H	13H	30H	56H
Decimal	20	14	6	25	9	19	48	86
Unit	Century	Year	Month	Date	Hour	Minute	Second	10 Millisecond
Date	June 25, 2014 9:19:48:86 AM							

3.5: Type F4 - Day of Week

Length: 1 Register (2 bytes)

This register contains a 16-bit number, associated with the days of the week as follows:

Value	Day of the Week	Value	Day of the Week
0001H	Sunday	0005H	Thursday
0002H	Monday	0006H	Friday
0003H	Tuesday	0007H	Saturday
0004H	Wednesday		

3.6: Type F6 - High Speed Inputs, Delta and Current State

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in each byte are associated with the meter's 8 high speed inputs - the least significant bit with input 1, through to the most significant bit with input 8.

The most significant byte contains Delta information about the high speed inputs; the least significant byte contains the current state of the high speed inputs. For Delta bits, a bit value of 1 means one or more were noticed on this input during the last cycle; a bit value of 0 means no changes were noticed on this input during the last cycle. For current state bits, a bit value of 1 means the input is open; a bit value of 0 means the input is closed.

Example:

Address	00118															
Value	0461H															
Bytes	04H								61H							
	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
	High Speed Input Delta								High Speed Input Current State							
	8	7	6	5	4	3	2	1	8	7	6	5	4	3	2	1
Meaning	-	-	-	-	-	Change	-	-	Clsd	Opn	Opn	Clsd	Clsd	Clsd	Clsd	Opn
Interpretation	Inputs 7, 6, and ,and 1 are now open and Input 3 changed state at least once during the last cycle.															

3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker

Length: 2 Registers (4 bytes)

Range: +32767 / -32768

Unit: 1/65536 V, A, VA, VAR, W or Hz

The registers together contain a four-byte signed (2's compliment) integer. Positive values have the most significant bit clear, and have the same magnitude as an unsigned integer. Negative values have the most significant bit set. The magnitude of a negative value is found by complementing (inverting) all of the bits and adding 1.

Examples:

Registers 00153 - 00154, Tenth second Phase A VAR might contain the following data:

Address	00153	00154
Value	0001H	4000H
4-byte signed integer (Hex)	00014000H	
Most significant bit	0	
4-byte integer (Decimal)	+81920	
1/65536 VAR Secondary	+1.25 VAR secondary	

Registers 00153 - 00154, Tenth second Phase A VAR, might contain the following data:

Address	00153	00154
Value	FFFEH	C000H
4-byte signed integer (Hex)	FFFE C000H	
Most significant bit	1	
Compliment	00013FFFH	
Increment	00014000H	
4-byte integer (Decimal)	-81920	
1/65536 VAR Secondary	-1.25 VAR secondary	

3.8: Type F8 - Power Factor

Length: 1 Register (2 bytes)

Range: 3.999 / 0.000

Unit: 0.001 PF

This register contains a 16 bit unsigned number. This number varies from 0000H - 0F9FH, or 0 to 3999 in decimal. This representation allows for expressing power factor from 0 to 1 in the four quadrants, as shown in the following table (which is oriented clockwise, starting from 90 degrees):

Quadrant	Value		PF	Value		PF	Value		PF
	Hex	Dec		Hex	Dec		Hex	Dec	
1	0000H	0	0.0000	01F4H	500	0.500	03E7H	999	0.999
4	03E8H	1000	1.000	05DCH	1500	0.500	07CFH	1999	0.001
3	07D0H	2000	0.0000	09c4h	2500	0.500	0bb7h	2999	0.999
2	0bb8h	3000	1.000	0dach	3500	0.500	0f9fh	3999	0.001

Application of sign and lead/lag labels (is 9CFH -0.500 Lead or +0.500 Lag) depends on the programmable setting called Power Factor Labeling, located in register 46019, described in Section 6.16. Energy direction Block.

Examples:

Register 00171, Tenth second Phase A Power Factor, might contain the following data:

Address	00171
Value	0C10H
Decimal	3088
PF	Q2, 0.912

Register 00171, Tenth second Phase A Power Factor, might contain the following data:

Address	00171
Value	0390H
Decimal	912
PF	Q1, 0.912

3.9: Type F9 - Angle

Length: 1 Register (2 byte)

Range: +180 / -180

Unit: 0.01 degree

This register contains a 16-bit signed (2's complement) number. Positive values have the most significant bit clear, and have the same magnitude as an unsigned integer. Negative values have the most significant bit set. The magnitude of a negative value is found by complimenting (inverting) all of the bits and adding 1.

Examples:

Register 00175, Tenth second Phase A-N Voltage to Auxiliary Voltage Phase Angle, might contain the following data:

Address	00175
Value	08BBH
Most significant bit	0
Decimal	+2235
Angle	+22.35 Degrees

Register 00175, Tenth second Phase A-N Voltage to Auxiliary Voltage Phase Angle, might contain the following data.

Address	00175
Value	F745H
Most significant bit	1
Compliment	08BAH
Increment	08BBH
Decimal	-2235
Angle	-22.35 Degrees

3.10: Type F10 - Percentage

Length: 1 Register (2 bytes)

Range: +327.67% / - 327.68%

Unit: 0.01%

This register contains a 16-bit signed (2's compliment) number. Positive values have the most significant bit clear, and have the same magnitude as an unsigned integer. Negative values have the most significant bit set. The magnitude of a negative value is found by complimenting (inverting) all of the bits and adding 1.

Examples:

Register 00234, One second Voltage Imbalance, might contain the following data:

Address	00234
Value	08BBH
Most significant bit	0
Decimal	+2235
Percent	+22.35%

Register 00234, One second Voltage Imbalance, might contain the following data:

Address	00234
Value	F745H
Most significant bit	1
Compliment	08BAH
Increment	08BBH
Decimal	-2235
Percent	-22.35%

3.11: Type F11 - Energy Counter (Packed BCD / Secondary)

Length: 4 Registers (8 bytes)

Range: 9,999,999,999,999,999 / 0 VAh, VARh or Wh secondary

Unit: 1 VAh, VARh or Wh secondary

These registers contain 8 bytes of Packed BCD. Each register contains 2 bytes. Each byte contains 2 nibbles. Each nibble represents a decimal digit from 0-9. All together, there are 16 nibbles, and therefore a 16-digit decimal number can be represented.

Example:

Registers 00982 - 00985, VAhour, might contain the following data:

Address	00982				00983				00984				00985			
Value	000H				0001H				0534H				1284H			
Bytes	00H		00H		00H		01H		05H		34H		12H		84H	
Nibbles	0H	0H	0H	0H	0H	0H	0H	1H	0H	5H	3H	4H	1H	2H	8H	4H
Digit	0	0	0	0	0	0	0	1	0	5	3	4	1	2	8	4
Unit	P	T		G				M		k						
VAh	105,341,284 VAh secondary															

3.12: Type F12 - Energy Counter (Binary / Secondary)

Length: 4 Registers (8 bytes)

Range: 9,999,999,999,999,999 / 0 VAh, VARh or Wh secondary

Unit: 1 VAh, VARh or Wh secondary

These registers contain an 8-byte unsigned integer.

Example:

Registers 01002-01005, VAhour, might contain the following data:

Address	01002	01003	01004	01005
Value	0000H	0000H	0647H	6164H
8-byte unsigned integer (Hex)	000000006476164H			
Decimal	105341284			
VAh	105,341,284 VAh secondary			

3.13: Type F13 - Phase Sequence

Length: 1 Register (2 bytes)

This register contains a 16-bit unsigned integer, most-significant byte first, associated with the Phase Sequence as follows:

Value (Hex)	Phase Sequence
0000H	A-B-C
0001H	C-B-A

3.14: Type F14 - Block/Rolling Window Average Status

Length: 1 Register (2 bytes)

This register contains a 16-bit unsigned integer, associated with the Average Status as follows:

Value (Hex)	Average Status
0000H	Not yet available
0001H	Available

This is the Status Register for Block Window Average (02605-02683) and Rolling Window Average (02684-02768).

If a value is not yet computed by the Nexus® device, the Status value will be zero.

- When the value is zero, Communicator EXT™ software displays asterisks for values.
- In Modbus, a value will be returned based on the type of reading.
 - Negative Maximums and Positive Minimums return: 7FFFFFFFH or 2,147,483,647.
 - Positive Maximums and Negative Minimums return: 80000000H or +/- 2,147,483,647.
- No Timestamp will be assigned to the reading.

3.15: Type F15 - Limit States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Limits, the most significant bit of the most significant byte with Limit 1 (or 17), through to the least significant bit of the least significant byte with Limit 16 (or 32).

A bit value of 1 means that the particular limit has been passed, while a bit value of 0 means that the particular limit has not been passed.

Example:

Register 02769, Limit States, Value 1 Comparison, 1-16, might contain the following data:

Address	02769															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Points	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Limit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Passed	No	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
Interpretation	Limits 6, 10, 11, and 16 are currently passed; all others are not passed.															

3.16: Type F16 - Low Speed (Internal) Input States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in the most significant byte are associated with the eight Status Inputs, the most significant bit with input 8, through to the least significant bit with Input 1. The least significant byte is undefined.

A bit value of 1 means the input is open; a bit value of 0 means the input is closed.

Example:

Register 02773, Low Speed (Internal) Inputs, might contain the following data:

Address (Hex)	02773															
Value	5100H															
Bytes	51H								00H							
Bits	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0
									Undefined							
Input	8	7	6	5	4	3	2	1	8	7	6	5	4	3	2	1
Meaning	Clsd	Opn	Clsd	Opn	Clsd	Clsd	Clsd	Opn								
Interpretation	Inputs 7, 5 and 1 are open; all other inputs are closed.															

3.17: Type F17 - Digital Input States in Digital Input Option Board

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in the most significant byte are associated with the eight Digital Inputs in a Digital Input Option board, the most significant bit with input 8, through to the least significant bit with Input 1. The least significant byte is undefined.

A bit value of 1 means the input is open; a bit value of 0 means the input is closed.

Example:

Register 0AD5H, Digital Input States, Digital Input Option board in Slot 3, might contain the following data:

Address (Hex)	0AD5H															
Value	5100H															
Bytes	51H								00H							
Bits	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Digital Input States								Undefined							
Input	8	7	6	5	4	3	2	1								
Meaning	Clsd	Opn	Clsd	Opn	Clsd	Clsd	Clsd	Opn								
Interpretation	Inputs 7, 5 and 1 are open; all other inputs are closed.															

3.18: Type F18 - Digital Input Option Board Input Accumulation / Cumulative Demand

Length: 2 Registers (4 bytes)

Range: 4,294,967,295/0

Unit: Accumulated Transitions, Accumulated Primary Watts

These registers contain a 4 byte unsigned integer.

Example:

Registers 0AD6H-0AD7H, Input Accumulation 1, Digital Input Option Board in slot 3, might contain the following data:

Addr (Hex)	0AD6H	0AD7H
Value	0647H	6164H
4 byte unsigned integer	06476164H	
Decimal	105341284	
Accumulated Transitions	105,341,284 Accumulated Transitions	

3.19: Type F33 - Temperature

Length: 1 Register (2 bytes)

Range: +3276.7 C / - 3276.8 C

Unit: 0.1 degree C

This register contains a 16-bit signed (2's compliment) number. Positive values have the most significant bit clear and have the same magnitude as an unsigned integer. Negative values have the most significant bit set. The magnitude of a negative value is found by complimenting (inverting) all of the bits and adding 1.

Examples:

Register 05946, meter's Internal Temperature, might contain the following data:

Address	05946
Value	08BBH
Most significant bit	0
Decimal	+223
Celsius	+22.3 degree C

Register 05946, meter's Internal Temperature, might contain the following data:

Address	05946
Value	F745H
Most significant bit	1
Compliment	08BAH
Increment	08BBH
Decimal	-223
Celsius	-22.3 degree C

3.20: Type F34 - Limit and Relay Logic States

Length 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Limits or Relays, the most significant bit of the most significant byte with Limit 1 (or 17, or Relay 1), through to the least significant bit of the least significant byte with Limit 16 (or 32, or Relay 16).

A bit value of 1 means TRUE, while a bit value of 0 means FALSE. TRUE and FALSE result from the AND, OR XOR, Hysteresis and NOT of two input values of 1 or 0.

Example:

Register 175AH, Limit States, Combinations, 1-16, might contain the following data:

Addr (Hex)	175AH															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Limit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Logic (T/F)	F	F	F	F	F	T	F	F	F	T	T	F	F	F	F	T
Interpretation	Limit Combinations 6, 10, 11 and 16 are currently TRUE, all others are FALSE.															

3.21: Type F35 - Relay Delays

Length: 1/2 Register (1 byte) (2 per Register)

This register has two bytes. Each byte contains an unsigned integer which is a count-down delay. A relay logic tree must be stable for the duration of the delay before triggering a relay. Delays are preloaded when the Gate G value changes. They are decremented every pass thereafter, until they reach zero.

Example:

Register 06000, Delay Timer, Relay 1 / Relay 2, might contain the following data:

Address	04H	00H
Value	0400H	
Bytes	06000	
Interpretation	Relay 1 has 4 seconds of delay remaining, Relay 2 has no delay remaining.	

3.22: Type F36 - Desired Relay States

Length: 1 Register (1 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant bit of the most significant byte with Relay 1, through the least significant bit of the least significant byte with Relay 16.

A bit value of 1 means the relay should be energized (connected to Normal Open); a bit value of 0 means the relay should be de-energized (connected to Normal Close). These are states pending transmission to the relays.

Example:

Register 06008, Desired Relay States, Relays 1-16, might contain the following data:

Address	06008															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Limit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
State (NO/NC)	NC	NC	NC	NC	NC	NO	NC	NC	NC	NO	NO	NC	NC	NC	NC	NO
Interpretation	Relays 6, 10, 11 and 16 should be energized; all others de-energized.															

3.23: Type F37 - Relays Pending Update

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant byte with Relay 1 through to the least significant bit of the least significant byte with Relay 16.

A bit value of 1 means the physical relay needs to be updated, a bit value of 0 means the physical relay does not need to be updated.

Example:

Register 06009, Relays Pending Updates 1-16, might contain the following data:

Address	06009															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Relay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Update?	No					Yes				Yes	Yes					Yes
Interpretation	Relays 6, 10, 11 and 16 need to be updated, all others are in their correct states.															

3.24: Type F38 Shadowed Relay States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant byte with Relay 1 through to the least significant bit of the least significant byte with Relay 16.

A bit value of 1 means the relay is supposed to be energized (connected to Normal Open), a bit value of 0 means the relay is supposed to be de-energized (connected to Normal Close). These states have not necessarily been confirmed by polling the relay device.

Example:

Register 06010, Shadowed Relay States 1-16, might contain the following data:

Address	060010															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Relay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
State (NO/NC)	NC	NC	NC	NC	NC	NO	NC	NC	NC	NO	NC	NC	NC	NC	NC	NC
Interpretation	Relays 6 and 10 are supposed to be energized, all others de-energized, not necessarily confirmed.															

3.25: Type F39 - Confirmed Polled Relay States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant byte with Relay 1 through to the least significant bit of the least significant byte with Relay 16.

A bit value of 1 means the relay was energized (connected to Normal Open) when last polled, a bit value of 0 means the relay was de-energized (connected to Normal Close) when last polled. These states may not be current on the relays, since operations may have occurred since the last poll.

Example:

Register 06011, Confirmed Polled Relay States 1-16, might contain the following data:

Address	060011															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Relay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
State (NO/NC)	NC	NC	NC	NC	NC	NO	NC	NC	NC	NO	NO	NC	NC	NC	NC	NO
Interpretation	Relays 6 ,10, 11, and 16 were energized when last polled, all others were de-energized.															

3.26: Type F40 - Valid Flags for Confirmed Relay States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant byte with Relay 1 through to the least significant bit of the least significant byte with Relay 16.

A bit value of 1 means the confirmed states in Confirmed Polled Relay States register (06011) are valid, a bit value of 0 means the confirmed states have not yet been polled.

Example:

Register 06012, Valid Flags for Confirmed Relay States, might contain the following data:

Address	060012																
Value	FFF0H																
Bytes	FFH									F0H							
Bits	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Relay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Valid?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Interpretation	Confirmed states for Relays 13-16 have not yet been polled and are not yet valid.																

3.27: Type F41 - Locked Relays, Relays 1-16

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant byte with Relay 1 through to the least significant bit of the least significant byte with Relay 16.

A bit value of 1 means the relay has been locked, overriding the Relay Logic Tree for this relay. A bit value of 0 means the relay is operating normally according to the Relay Logic Tree.

Example:

Register 06013, Locked Relays, Relays 1-16, might contain the following data:

Address	060013															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Relay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Locked?						Lock				Lock	Lock					Lock
Interpretation	Relays 6, 10, 11, and 16 are locked; all other relays are under control of the RelayLogic tree.															

3.28: Type F42 - Locked Relay States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the 16 Relays, the most significant byte with Relay 1 through to the least significant bit of the least significant byte with Relay 16.

These bits are valid only if the relays have been selected for locking, as reported in the Locked Relays register, 060013.

A bit value of 1 means the relay is locked energized (connected to Normal Open). A bit value of 0 means the relay is locked de-energized (connected to Normal Close).

Example:

Register 060014, Locked Relay States, Relays 1-16, might contain the following data:

Address	060014															
Value	0461H															
Bytes	04H								61H							
Bits	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Relay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NO/NC	NC	NC	NC	NC	NC	NO	NC	NC	NC	NO	NO	NC	NC	NC	NC	NO
Interpretation	Relays 6, 10, 11, and 16 are energized; all other relays are de-energized, if they are locked.															

3.29: Type F43 - Miscellaneous Flags

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with various miscellaneous functions, as follows:

MSB first, Bit[15] = Battery Status (if it is lower than 2.55 V)

Bit[14] = user current threshold

Bit[13] = Internal failure

Bit[12] = Profile change

Bit[11] = Test Mode

Bit[10] = Time change

Bit[09] = IRIG-B year available

Bit[08] = Not Defined, reserved for debugging (with FW B.0053, 1= IRIG-B Time continue Forwarding)

Bit[07] = Active IRIG-B

Bit[06] = Active DST

Bit[05] = Active Line Synch

Bit[04] = Active Cold Load

Bit[03] = DST Spring Date (the current date/time is before DST start time for the current calendar year)

Bit[02] = DST Fall Date (the current date/time is after DST start time for the current calendar year)

Bit[01] = Active SNTP

Bit[00] = Not defined, reserved for debugging (with FW B.0053, 1 = Battery low flag)

Example:

Register 1796H, Miscellaneous Flags, might contain the following data:

Address	1796H															
Value	8000H															
Bytes	80H								00H							
Bits	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Interpretation	Battery is low.															

3.30: Type F44 - Digital Input Option Module Data States

Length: 1 Register (2 bytes)

This register has two bytes. Each byte has eight bits. The bits in these bytes are associated with the status of the data received from Digital Input Option Module, as follows:

Bit	Point	Meaning
15 (MSB)	0	Status of Data from Digital Input Option Board in slot 3 (Modbus Register 0AD5H, 0AE6H)??
14	1	Status of Data from Digital Input Option Board in slot 4 (Modbus Register 0A57H, 0B08H)??
13-0 (LSB)		Undefined

Digital Input Option Board Data Status -A bit value of 0 means that the data from this Digital Input option board is not yet valid; either the board is not present or has not yet been polled. A bit value of 1 means that the data from this Digital Input option board has been polled at least once and is valid.

Example:

Register 17DEH, Digital Input Option Module Data States, might contain the following data:??

Addr (Hex)	17DEH															
Value	8000H															
Bytes	80H								00H							
Bits	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Point	0	1														
Digital Input Option Module	1	2														
Status	OK	-	-	-												
Interpretation	Data from Digital Input Option Module 1 (Register 0AD5H) is valid, data from Digital Input Option Module 2 is not valid.															

3.31: Type F45 - Analog Input Modules' Data States

Length: 2 Registers (4 bytes)

This register has four bytes. Each byte has eight bits. The bits in these bytes are associated with the status of the data received from the Analog Input Modules, as follows:

Reg	Bit	Point	Meaning
0	15 (MSB)	0	Status of Analog Input 1, Module 1 (Modbus Register 173AH)
0	14-8	1-7	Status of Analog Inputs 2-8, Module 1 (Modbus Registers 173BH-174IH)
0	7-0	8-15	Status of Analog Inputs 1-8, Module 2 (Modbus Registers 1742H-1749H)
1	15-8	16-23	Status of Analog Inputs 1-8, Module 3 (Modbus Registers 174AH-1751H)
1	7-0	24-31	Status of Analog Inputs 1-8, Module 4 (Modbus Registers 1752H-1759H)

Analog Input Module Data Status - A bit value of 0 means that the data from this Analog Input Module is not yet valid; either the module is not present or has not yet been polled. A bit value of 1 means that the data from this Analog Input Module has been polled at least once and is valid.

Example:

Register 06112, Analog Input Modules' Data States, might contain the following data:

Addr (Hex)	06112															
Value	8000H															
Bytes	80H								00H							
Bits	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Point	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Analog Input Module	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Input	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Status	OK	OK	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interpretation	Data from Inputs 1-2 of Analog Input Module 1 is valid (Registers 173AH-173BH), data from Inputs 3-8 of Analog Input Module 1 is not valid; data from Inputs 1-8 of Analog Input Module 2 is not valid.															

3.32: Type F46 - High Byte of Modbus Register (Signed)

Length: 1 byte
High Byte of Modbus Register, Signed
Range: +127 / -128
Unit: 1

3.33: Type F47 - High Byte of Modbus Register (Unsigned)

Length: 1 byte
High Byte of Modbus Register, Unsigned
Range: 255 / 0
Unit: 1

3.34: Type F49 - Low Byte of Modbus Register (Unsigned)

Length: 1 byte
Low Byte of Modbus Register, Unsigned
Range: 255 / 0
Unit: 1

3.35: Type F51 - Two-Byte (Unsigned)

Length: 2 bytes
Two-Byte, Unsigned
Range: 65,535 / 0
Unit: 1

3.36: Type F52 - Four-Byte (Signed)

Length: 4 bytes
Four-Byte, Signed
Range: +2,147,483,647 / -2,147,483,648
Unit: 1

3.37: Type F53 - Four-Byte (Unsigned)

Length: 4 bytes
Four-Byte, Unsigned
Range: 4,294,967,295 / 0
Unit: 1

3.38: Type F55 - Eight-Byte (Unsigned)

Length: 8 bytes

Eight-Byte, Unsigned

Range: 18,446,744,073,709,551,615 / 0

Unit: 1

3.39: Type F56 - Flicker Countdown

Length: 1 Register (2 bytes)

Range: 65,535 / 0 seconds

Unit: 1 second

This register contains an unsigned integer which is a countdown in seconds until the end of a Flicker interval, Short Term or Long Term.

Example:

Register 06489, Short Term Flicker Countdown, might contain the following data:

Address	06489
Value	0400H
Decimal	1024
Interpretation	1024 seconds remain until the next Short Term Flicker is computed.

3.40: Type F57 - Accumulation in the Interval

Length: 1 Register (2 bytes)

Range: 465,535 / 0

Unit: VAh, VARh, Wh secondary or pulses

These registers contain a 2-byte unsigned integer.

Example:

Register 06397, Total VA hour (Quadrants 1+2+3+4) in the Interval, Secondary, might contain the following data:

Address	06937
Value	0647H
Decimal	1607
VAh Secondary	1607 VAh Secondary

3.41: Type F58 - 12-bit RTU Sanity Register

Length: 1 Register

This register indicates the status of the meter. A normally functioning meter reports a value of 0x00000 or 0. Any non-zero value indicates that the unit is operating improperly.

3.42: Type F62 - Scaled Pulse Accumulation, Aggregation or Average

Length: 4 Registers (8 bytes)

Range: +9,223,372,036,854,776,807 / -9,223,372,036,854,776,808

Unit: 1 Unit

This register contains an 8-byte signed (2's complement) number. Positive values have the most significant bit clear and have the same magnitude as an unsigned integer. Negative values have the most significant bit set. The magnitude of a negative value is found by complementing (inverting) all of the bits and adding 1.

Type F62 does not use the multiplier from the Energy Scale Settings from the Nexus® meter's Device Profile. It uses the multiplier from the Nexus® meter's Internal Input Pulse Accumulations Setup screen (Device Profile > Revenue & Energy Settings > Pulse Accumulations).

Examples:

Registers 05834 - 05837, Block Window Average Aggregation 1, might contain the following data:

Address	05834	05835	05836	05837
Value (Hex)	0000H	0000H	0001H	2345H
8 byte Signed Integer (Hex)	00000000001245H			
Most Significant Bit	0			
Decimal	+74565			
Accumulated Transitions	+74,565 Units			

Registers 05834-05837, Block Window Average Aggregation 1, might contain the following data:

Address	05834	05835	05836	05837
Value (Hex)	FFFFH	FFFFH	FFFEH	DCBBH
8 byte Signed Integer (Hex)	FFFFFFFFFEDCBBH			
Most Significant Bit	1			
Complement	000000000012345H			
Increment	000000000012345H			
Decimal	-74565			
Accumulated Transitions	-74,565 Units			

3.43: Type F64 - Scaled Energy

Length: 2 Registers (4 bytes)

Range: 99 / 0 through 999,999,999 / 0 (variable, 2-9 digits)

Unit: 10^{-7} through 10^6 units (variable)

This register contains an 4-byte signed integer. The range and resolution of a given reading is controlled by programmable Energy Scale Settings, which govern both the range of the reading (from 2 to 9 digits) and the units of the reading (from 7 decimal places of Wh (10^{-7}) to no decimal places of MWh (10^6). Refer to Type F65 for a description of the Scaled Energy Programmable Setting (Device Profile > Revenue & Energy Settings > Energy Scaling).

Example:

Registers 06912-06913, Total VAh (Quadrant 1+2+3+4) Scaled Primary, might contain the following data:

Address	06912	06913
Value	075BH	CD15H
4-byte Hex	075HCD15H	
Decimal	123,456,789	

- If the Programmable Settings indicated 5 decimal places of WH, then the interpreted value would be 1,234.56789 Wh.
- If the Programmable Settings indicated 0 decimal places of MWh, then the interpreted value would be 123,456,789 MWh.

3.44: Type F65 - Scaled Energy Setting

Length: 1/2 a Register (1 byte)

Each register contains 2 bytes. Each byte contains settings for a base quantity. The format of a byte is as follows:

Bit	7	6	5	4	3	2	1	0
Meaning	Digits			Unit		Decimal Places		

- Digits is a 3-bit field, which is offset by 2 to represent from 2 to 9 displayable digits.
- Unit is a 2-bit field, where the values from 0 to 2 represent units of Wh (100), k (103) and M (106). The value 3 is undefined and is treated the same as 2, signifying M (106).
- Decimal Places is a 3-bit field, where the bits represent from 0 to 7 decimal places.

Example:

For the following, the Q1234 VAh has a current value internally of 123,456,789.0123 VAh.

Register CA00H		Digits	Unit	D.P	Pattern	Reading in Register 1AFFH-1B00H		Display
Hex	Binary			.		Hex	Decimal	
20xxH	001 00 000	3	VAh, 100	0	xxxVAh	000003	789	789VAh
8BxxH	100 01 011	6	kVAh, 103	3	xxx.xxx kVAh	0006F855H	456789	456.789 kVAh
88xxH	100 01 000	6	kVAh, 103	0	Xxxxxx kVAh	0001E240H	123456	123,456 kVAh
93xxH	100 10 011	6	MVAh, 106	3	xxx.xxx MVAh	0001E240H	123456	123,456 MVAh
72xxH	011 10 010	5	MVAh, 106	2	xxx.xx MVAh	00003039H	12345	123.45 MVAh
C2xxH	110 00 010	8	VAh, 100	2	xxxxxx.xx VAh	02B90135H	45678901	456,789.01 VAh

The Scaled Energy Programmable Setting can be accessed by clicking: Device Profile > Revenue & Energy Settings > Energy Scaling.

3.45: Type F67 - K-Factor

Length: 1 Register (2 bytes)

Range: +327.67 / - 327.68

Unit: 0.01

This register contains a 16-bit signed (2's complement) number. Positive values have the most significant bit clear and have the same magnitude as an unsigned integer. Negative values have the most significant bit set. The magnitude of a negative value is found by complementing (inverting) all of the bits and adding 1.

Examples:

Register 00390, Maximum K-Factor Phase A Current, might contain the following data:

Address	00390
Value (Hex)	08BBH
Most significant bit	0
Decimal	+2235
K-Factor	+22.35

Register 0185H, Maximum K-Factor Phase A Current, might contain the following data:

Address	00390
Value (Hex)	F745H
Most significant bit	1
Complement	08BAH
Increment	08BBH
Decimal	-2235
K-Factor	-22.35

3.46: Type F68 - Secondary 1 Cycle RMS Voltage and Current

Length: 2 Registers (4 bytes)

Range: 4,294,967,295 V, A / 0 V, A

Unit: 1/65536 V, A

These registers form a 4-byte unsigned integer in which the first register contains the LSB word.

Example:

Address	0x005D	0x005E
Value	0xE6D7	0x0077
4-byte unsigned integer(Hex)	0x0077E6D7	
4-byte unsigned integer (Decimal)	7,857,879	
1/65536 V secondary	119.902	

3.47: Type F69 - Angle

Length: 1 Register (2 Bytes) - signed integer

Order: Most significant byte first

Range: -327.68 / +327.67

Unit: 0.01 degree

3.48: Type F70 - Harmonic Over Threshold Flag

Length: 4 Register (8 Bytes)

Order: Least significant word first (inside word, most significant bit first)

Range: N/A

Unit: N/A

A bit value of 1 means harmonic over threshold event.

Word	Word 0	Word 1	Word 2	Word 3
Harmonic Order	Bit 0 = Order 0	Bit 0 = Order 16	Bit 0 = Order 32	
	Bit 1 = Order 1	Bit 1 = Order 17	Bit 1 = Order 33	
	Bit 2 = Order 2	Bit 2 = Order 18	Bit 2 = Order 34	
	Bit 3 = Order 3	Bit 3 = Order 19	Bit 3 = Order 35	Bit 0 = Order 48
	Bit 4 = Order 4	Bit 4 = Order 20	Bit 4 = Order 36	Bit 1 = Order 49
	Bit 5 = Order 5	Bit 5 = Order 21	Bit 5 = Order 37	Bit 2 = Order 50
	Bit 6 = Order 6	Bit 6 = Order 22	Bit 6 = Order 38	Bit 3 = Order 51
	Bit 7 = Order 7	Bit 7 = Order 23	Bit 7 = Order 39	Bit 4-15 = N/A
	Bit 8 = Order 8	Bit 8 = Order 24	Bit 8 = Order 40	
	Bit 9 = Order 9	Bit 9 = Order 25	Bit 9 = Order 41	
	Bit 10 = Order 10	Bit 10 = Order 26	Bit 10 = Order 42	
	Bit 11 = Order 11	Bit 11 = Order 27	Bit 11 = Order 43	
	Bit 12 = Order 12	Bit 12 = Order 28	Bit 12 = Order 44	
	Bit 13 = Order 13	Bit 13 = Order 29	Bit 13 = Order 45	
	Bit 14 = Order 14	Bit 14 = Order 30	Bit 14 = Order 46	
	Bit 15 = Order 15	Bit 15 = Order 31	Bit 15 = Order 47	

3.49: Type F71 - Out of Range Status

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	Normal
1	Out

3.50: Type F72 - Time Stamp (Packed BCD)

Length: 4 Register (8 Byte)

Order: Least significant byte first

Range: 12/31/9999 23:59:59.99

Unit: 10 ms

Each register contains 2 bytes. Each byte contains 2 nibbles. Each nibble represents a decimal digit from 0-9.

Byte	0		1		2		3		4		5		6		7	
Nibble	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	Year				Month		Day		Hour		Minute		Seconds		Centiseconds	

3.51: Type F73 - Magnitude

Length: 2 Register (4 Byte)

Order: Least significant word first

Range: -32768/+32767.9999

Unit: 1/65536 Volts/Degree/Hz

Word	0	1
	Fraction	Integer

3.52: Type F74 - Number 4 Bytes - Unsigned Integer

Length: 2 Register (4 Byte) - unsigned integer

Order: Least significant word first

Range: 0/+4294967295

Unit: 1

3.53: F75 - Flagging

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	Normal
1	Flagging

3.54: Type F76 - Valid Status

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0x55AA	Valid
Others	Invalid

3.55: Type F77 - Voltage Flag

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

- A bit value of 1 means one of the following situations occurred; a bit value of 0 means one of the following situations **did not** occur:
 - Waveform Voltage RMS Sag event
 - Waveform Voltage RMS Swell event
 - Voltage Waveshape Pre-Trigger event
 - Transient Positive Side Over-Range Pre-Trigger event
 - Transient Negative Side Over-Range Pre-Trigger event
 - Interruption event
 - Waveform Voltage RMS Sag State Transition
 - Waveform Voltage RMS Swell State Transition
 - Interruption transition
 - Waveform Voltage RMS Sag Valid
 - Waveform Voltage RMS Swell Valid
 - Voltage Waveshape Pre-Trigger Valid
 - Transient Map waveform mask (transient trigger set will lead waveform/PQ trigger set)
 - Sliding reference Usr sag/swell enable for voltage

Byte	Byte 1								Byte 0							
Bits	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Channels	N/A				Vne	Vce	Vbe	Vae	Vne	Vxn	Vca	Vbc	Vab	Vcn	Vbn	Van

3.56: Type F78 - Current Flag

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

- A bit value of 1 means one of the following situations occurred; a bit value of 0 means one of the following situations **did not** occur:
 - Waveform Current RMS Sag event
 - Waveform Current RMS Swell event
 - Waveform Current RMS Sag State Transition
 - Waveform Current RMS Swell State Transition
 - Current RMS Change of Rate Over-Range Valid
 - Sliding reference Usr sag/swell enabled for current

Byte	Byte 1								Byte 0							
Bits	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Channels	N/A											Ix	Ic	Ib	Ia	

3.57: Type F79 - General Readings (RMS, Ratio...)

Length: 2 Register (4 Byte)

Order: Least significant word first

Range: 0/+65535.9999

Unit: 1/65536 Volts/Amps

Word	0	1
	Fraction	Integer

3.58: Type F82 - Point Update Flag

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

A bit value of 1 means that an event occurred.

Byte	Byte 1								Byte 0							
Bits	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Reference Channels	N/A								5th	4th	3rd	2nd	1st			

3.59: Type F83 - Phase Sequence

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0xABC0	ABC sequence
0xCBA1	ACB sequence

3.60: Type F90 - 16.7 usec Counter (Used for duration timestamping.)

Length: 2 Register (4 Byte) - unsigned integer

Order: Least significant word first

Range: + 4294967295/0

Unit: 16.7 usec

3.61: Type F97 - Hookup Configuration

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	4-Wire Wye
1	3-Wire Delta 3 CT
2	3-Wire Delta 2 CT
3	4-Wire Wye 2.5 Element
4	4-Wire Delta Ground

3.62: Type F99 - Frequency Type

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	50 Hz
1	60 Hz

3.63: Type F100 - Waveform Sample Rate

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	Full sample rate
2	1/2 of full sample rate
4	1/4 of full sample rate
...	...
64	1/64 of full sample rate

3.64: Type F101 - High Resolution RTC Timestamp

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Bits	Description
0~14	1 count = 100us = 0.1ms, range up to 9999 = 0.9999second
15	1 means IRIG_B synchronized, 0 means IRIG_B lost

3.65: Type F102 - Calibration Gain

Length: 2 Register (4 Byte)

Order: Least significant word first

Range: +16.999999996/0

Unit: N/A

The calibration gain number is a 32 bit number where 4 most significant bits are unsigned integer and the others 28 bits are fractional of this number.

Example:

0x10539783 = 1.020408164

0x10000000 = 1.000000000

0x0FD7720F = 0.990099009

3.66: Type F103 - Alternate Format Power Factor

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: -1.0 / 1.0

Unit: 1/1000

3.67: Type F105 - RTC Status

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Bits	Description
0~1	Not defined
2	DST fall date
3	DST spring date
4	Active cold load
5	Active line sync
6	Active DST
7	Active GPS
8~15	Not defined

3.68: Type F106 - Line Synch Mode

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Bits	Description
0	0=disable
	1=enable
1	0=50Hz
	1=60Hz
2~15	Not defined

3.69: Type F107 - Daylight Savings Time Mode

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	Disable
1	Use onboard chip
2	User programmable: 16 bytes, Most significant byte first. Settings #1 Byte 15-14: Reserved Byte 13: Month Byte 12: Date Byte 11: Hour Byte 10: Minute Byte 9: Seconds Byte 8: Reserved Settings #2 Byte 7-6: Reserved Byte 5: Month Byte 4: Date Byte 3: Hour Byte 2: Minute Byte 1: Seconds Byte 0: Reserved
3	Use new standard (US, 2005)
4	Use Shark Format: 8 bytes, Most significant byte first. Settings #1 Byte 7: Month Byte 6: Week Byte 5: Day Byte 4: Hour Settings #2 Byte 3: Month Byte 2: Week Byte 1: Day Byte 0: Hour

Value	Description
5	Use new user programmable: 10 bytes, Most significant byte first. Settings #1 Byte 9: Month Byte 8: Week Byte 7: Day Byte 6: Hour Settings #2 Byte 5: Month Byte 4: Week Byte 3: Day Byte 2: Hour Settings #3 Byte 5: Shift hour for settings #1 Byte 4: Shift hour for settings #2

3.70: Type F108 - Threshold Enable Channel

Length: 1 Register (2 Byte)

Order: Most significant byte first

Range: N/A

Unit: N/A

Value	Description
0	Enable Threshold for Phase A-N voltage channel
1	Enable Threshold for Phase B-N voltage channel
2	Enable Threshold for Phase C-N voltage channel
3	Enable Threshold for Phase A-B voltage channel
4	Enable Threshold for Phase B-C voltage channel
5	Enable Threshold for Phase C-A voltage channel
6	Enable Threshold for Phase X-N voltage channel
7~12	Not defined
13	Enable Threshold for Phase N-E voltage channel
14	Enable Threshold for Phase A current channel
15	Enable Threshold for Phase B current channel
16	Enable Threshold for Phase C current channel
17	Enable Threshold for Phase X current channel
18~255	Not defined
256	Cover all voltages
257	Cover all currents
258	Cover all voltages and currents
259~65535	Not defined

3.71: Type F112 - 16 Bits, General Purpose (Used for status information, including statuses of EN 50160 and TOU.)

Length: 2 Bytes

Order: N/A

Range: N/A

Unit: N/A

3.72: Type F113 - 32 Bits, General Purpose (Used for status information, including status of EN 50160.)

Length: 4 Bytes

Order: N/A

Range: N/A

Unit: N/A

3.73: Type F115 - 4 Byte Counter

Length: 2 Register (4 Byte)

Order: Least significant word first

Range: +4294967295/0

Unit: 1

Word	0	1
	LSW	MSW

Value = MSW * 65536 + LSW

3.74: Type F117 - Energy Counter

Length: 4 Register (8 Byte)

Order: Most significant byte first

Range: -65535.9999/+65535.9999

Unit: 1/4294967296 VAh, VARh, Wh, Qh, I2T, V2T secondary

3.75: Type F118 - Power Factor

Length: 2 Register (4 Byte)

Order: Most significant byte first

Range: 0/+3.9999999

Unit: 1/16777216 PF

This register express power factor from 0 to 1 in the four quadrants, as follows:

Quadrant	Value	PF	Value	PF	Value	PF
4	0	0	0.5	0.5	0.9999999	0.9999999
1	1	1	1.5	0.5	1.9999999	0.0000001
2	2	0	2.5	0.5	2.9999999	0.9999999
3	3	1	3.5	0.5	3.9999999	0.0000001

3.76: Type F119 - Byte Array

Length: n bytes

Order: Array starts at high byte of starting Modbus register. Each Modbus register has two bytes.

Range: 255 / 0, unsigned

Unit: 1

3.77: Type F120 - IEEE 32 bit Single Precision Floating Point

Length: 4 bytes

Order: Most significant byte first, bit 31 is in MSB.

Range: N/A

Unit: N/A

Bits, Sign: 1[31], Exponent: 8[30-23], Fraction: 23[22-0]

3.78: Type F122 - Timestamp (packed S-Format)

Length: 6 bytes

Order: see table

Range: N/A

Unit: N/A

Stores a date from 2000 to 2099. Timestamp has a Minimum resolution of 1 second. The high bits of each timestamp byte are used as flags to record meter state information at the time of the timestamp. These bits should be masked out, unless needed.

Byte	0	1	2	3	4	5
Value	Year	Month	Day	Hour	Minute	Second
Range	0-99 (+2000)	1-12	1-31	0-23	0-59	0-59
Mask	0x7F	0x0F	0x1F	0x1F	0x3F	0x3F

3.79: Type F123 - Time-of-Use (TOU) Calendar Entry

Length: 6 bytes

Order: see table

Range: N/A

Unit: N/A

Dates are specified using one of 5 possible formats per the type bits in each calendar entry:

- type 0 = Fixed; exact date of the form month/day/year
- type 1 = Recurring; dates of the form month/day, applied every year.
Example: Independence Day is July 4th
- type 2 = Floating; dates of the form "nth occurrence in month M of D day of the week," applied every year.
Example: Thanksgiving is 4th Thursday in November
- type 3 = Built-in; dates that cannot use the other formats, e.g. Easter and Good Friday
- type 4 = Repeating; dates every N days from a reference date. Reference date is in month/day/year format.

Example: Every 60 days beginning on Jan 1, 2013. Y=13, M=1, D=1, N=60; dates are Jan 1, Mar 2, May 1, June 30, etc.

- types 5-7 are not used

Year, month, week, day and qualifier fields depend on the format. Not all fields are used in each format.

- year = actual year minus 2000, range 2001 - 2063. 0 indicates every year.
- month = 0 to 12. 0 indicates every month. Set to 0 for built-in dates.
- week = specifies nth occurrence of a day of the week for floating format. Set to 0 for all other formats. See following TOU Calendar Note 4.
- day = 1-31 for fixed, recurring, and repeating, 1-7 (Sun - Sat) for floating, or 1-2 (1-Easter, 2-Good Friday) for built-in.
- Qualifier is an enumeration: 1-this day, 2-next day, 3-next also, 4 weekday, 5- Sat to Fri (if the holiday falls on a Saturday, make Friday the holiday), 6-Sun to Mon (if the holiday falls on a Sunday, make Monday the holiday).
- Action field does not depend on the type. Actions are specified by setting individual bits and multiple bits may be set. See TOU Calendar Note 11, on the next page.

1st Register																
	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
Fixed	Type 0			--			action ¹¹						qualifier 1-6			
Recurring	Type 1															
Floating	Type 2															
Built-in	Type 3															
Repeating	Type 4															

2nd Register																
	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
Fixed	year ² 0-63						month 1-12				day of month ⁶ 1-31					--
Recurring	--						month ³ 0-12				day of month ^{6, 7, 12} 0-31					
Floating							month ^{3,13} 0-12				day of week ^{8, 13} 1-7					
Built-in	ref year ^{2, 5} 0-63						--				name ⁹ 1-2					
Repeating							ref month ⁵ 1-12				ref day ⁵ 1-31					

3rd Register																
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Fixed	--			--					--							
Recurring																
Floating	week ^{4,13} 0-5															
Built-in	--															
Repeating	repeats days 1-255															

TOU Calendar Notes:

- 1 Unused fields (--) should be set to 0
- 2 Actual year = specified year + 2000
- 3 Month = 0 specifies every month
- 4 Week = 0 (every week), 1 - 4 (1st - 4th week), or 5 (last week)
- 5 Reference is the fixed date on which the first repeat period begins
- 6 Day of month is 1 through number of days in that month
- 7 If month = 0, day of month can be 1 through 28, only
- 8 Day of week is 1 (Sunday) through 7 (Saturday)

9 Name is 1 (Easter) or 2 (Good Friday)

10 Qualifier enumeration:

- this day - use only the exact date specified
- next day - use the day following the date specified
- next day - use both the date specified and the next day
- weekday - combination of Sat to Fri and Sun to Mon
- Sat to Fri - if the date specified falls on Sat, use the day before (Fri), instead
- Sun to Mon - if the date specified falls on Sun, use the day after (Mon), instead

11 Action is bit-mapped (SMHHHHH) and supports multiple actions:

- S - season self read; change to next season
- M - month self read; change to next month
- HHHHH - make this day a holiday HHHHH (up to 31 holidays possible, numbered 1-31)

12 When customizing the season block for daily use, entry should be set to:

Action=Season; Type=Recurring; Qualifier=this day; Month=0; DOM=0

13 When customizing the season block for weekly use, entry should be set to:

Action=Season; Type=Floating; Qualifier=this day; Month=0; Week=0;
DOW=1- 7

3.80: Type F124 - Time-of-Use (TOU) Rate Change

Length: 2 bytes

Order: see table

Range: N/A

Unit: N/A

Bits	hhhhhmmm mmm--ttt
Description	<p>Each entry specifies the time of a tier change and which rate to adopt at that time.</p> <ul style="list-style-type: none"> - unused bit, always 0 hhhhh = hour, 0 to 23 mmmmm = minute; must be aligned with demand intervals (or sub-intervals) ttt - new rate number, 1 to 4. <p>Note: all unused entries must be at the end of the list and should be set to all zeros.</p>

3.81: Type F125 - Time-of-Use (TOU) Monitored Data Set Options

Length: 2 bytes

Order: see table

Range: N/A

Unit: N/A

Bits	00000000 hgfedcba
Description	<ul style="list-style-type: none"> a = 1 to enable accumulator register monitoring b = accumulator register sign (0-positive, 1-negative) c = 1 to enable peak demand monitoring de = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) f = 1 to enable cumulative demand g* = 1 to enable coincident demand association h= coincident demand entity (1-VAR, 0-PF) all unused bits are zeroes * meaningful only if accumulator register is +/- Whr & d=1

3.82: Type F126 - Time-of-Use (TOU) Monitor Time Timestamp

Length: 16 bytes

Order: see table

Range: N/A

Unit: N/A

Byte	0,1	2,3	4,5	6,7	8,9	10,11	12,13	14,15
Value	Year	Month	Day	DOW	Hour	Minute	Second	Flag Bits
Range	1-65535	1-12	1-31	1-7	0-23	0-59	0-59	----- cba
Detail	0=Year2000, 1=Year 2001, 2= Year 2002, etc.	1 =Jan., 2 = Feb., 3=March, etc.	Day of the month	Day of the week: 1=Sun, 7=Sat	Hour of the day: 0=12am, 23 =11pm	Number of minutes	Number of seconds	c=long b=short a=DST

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4: Modbus Register Map Notes

The information in this chapter refers to the Modbus Register Map's "Notes" column. Chapter 2 contains the Modbus Map.

1. Time information can be supplied from many different sources, an internal Real Time Clock, or an external GPS Clock. The internal Real Time Clock has a backup battery, which is used to maintain the passage of time when the Nexus® unit is without operational power. It is similar to those used in PCs and it reports time accurate to the second. The external GPS clock is supported through an IRIG-B connection, allowing synchronization and accuracy to the hundredth of a second (10 milliseconds). The internal RTC clock can be synchronized by an external SNTP source or through a communication link consisting of Modbus or DNP3.
2. These registers, when read, always report the time as reported by the Nexus® unit, either from the internal Real Time Clock or the external GPS Clock. Values written here for the purpose of updating the internal Real Time Clock are not read back.
3. These values are calculated by the Nexus® 1450 meter's DSP Processor, as part of the Waveform Capture function.
4. To convert Phase voltages in secondary volts into primary volts, multiply by the Phase voltage PT Ratio, composed of the Phase Voltage PT Ratio Numerator and Denominator (Registers 45917 - 45918 and 45919 - 45920).
5. Auxiliary voltage is in secondary volts. To convert this value into primary volts, multiply by the Auxiliary Voltage PT Ratio, composed of the Auxiliary Voltage PT Ratio Numerator and Denominator (Registers 45921 - 45922 and 45923 - 45924).
6. Phase and Calculated Neutral Currents are in secondary amps. To convert this value into primary amps, multiply by the Phase Current CT Ratio, composed of the Phase Current CT Ratio Numerator and Denominator (Registers 45909 - 45910 and 45911 - 45912).
7. Not used.

8. Measured Neutral is the true RMS measurement of current passing through the meter. Calculated Neutral is the RMS produced by adding the three Phase Current samples together and treating the result as a sample of the neutral line.
9. VA, VAR and Watts are in secondary. To convert this value into primary VA, VAR or Watts, multiply by the Phase Voltage PT Ratio, composed of the Phase Voltage PT Ratio Numerator and Denominator (Registers 45917 - 45918 and 45919 - 45919) and by the Phase Current CT Ratio, composed of the Phase Current CT Ratio Numerator and Denominator (Registers 45909- 45910 and 45911 - 45912).
10. Not used.

5: Information for Downloading Logs

5.1: Downloading Logs - Overview

- There are three methods for downloading logs from the Nexus®1450 meter: non-increment index, auto-increment index and file system access.
- Each of the Nexus® meter's ports act independently, allowing multiple Modbus masters access to all the retrievable data in a Nexus® meter slave.
- Log Memory Allocation (Quotas): Logs are made up of files that are each 1 MB in size. The user is able to assign how many files each log will get; however, the System Events log, and historical logs 1 and 2 have a maximum size of 1 and 8 MB, respectively, in order to maintain backwards compatibility. A log with no file assigned to it is disabled and will not run.
- Memory Gap Engine: To avoid the oldest record being overwritten during the download log process when the log is in pause mode, 5% of the memory allocated for the log will be empty (unused) during the normal operation. When the download process starts in a paused log, that reserved memory is used to save new records. If the process is fast enough, the download process can finish without dropping any records. On the other hand, if the download process is slow, the gap can be completely filled and then new records will be dropped (not saved).
- Log Reset: This register (located at 57345), when written to, causes all logs to be cleared. This action should be performed only under the following circumstances:
 - When the programmable settings are modified such that data already in the logs is invalidated; for example, any modifications involving the record size or organization of the contents of a snapshot, will require the logs to be cleared of any previous data. When settings changes like this are made, the Communicator EXT™ software displays a message telling you that the logs will be reset and asking if you want to download them first.
 - When the Run-Time code is upgraded, resulting in one of the following: a redefinition of the layout or meaning of the programmable settings or in altered behavior or capabilities of the logs. In this case, the software will prompt you to reset the logs by clicking on a button on the screen.

- Note that logs can also be reset via the Reset screen on the display, or the Reset Device Parameters screen from Communicator EXT™ software. If Password Protection has been enabled, a second level password is required for performing the reset.
- Downloading any log involves the Log Snapshot header: Header blocks for the different logs begin at register 36865. This block of registers holds the following information about the log:
 - Memory Size: 4-byte unsigned integers representing the amount of memory, in bytes, allocated to the log.
 - Record Size: an unsigned integer representing the size, in bytes, of a record in the log.
 - First Index: an unsigned integer representing the index of the first (oldest) record in the log.
 - Last Index: an unsigned integer representing the index of the last (newest) record in the log. The value FFFFH indicates that the log is empty.
 - First Time Stamp: These registers hold the time stamp from the first (oldest) record in:

Byte	Range	Description
0	0 - 255	century
1	0 - 99	year
2	1 - 12	month
3	1 - 31	day
4	0 - 23	hour
5	0 - 59	minute
6	0 - 59	second
7	0 - 99	centisecond

- **Last Time Stamp:** These registers hold the time stamp from the last (newest) record in the Log. The byte order and description are the same as for the first time stamp.
- **Valid Bitmap:** These registers hold the bit flags indicating whether the Nexus® slave recognizes the lines in the Historical Log Settings block (the block beginning at register 45205). The first bit represents the validity of the last data pointer in the historical log settings. A value of 1 means the data pointer is acceptable and can be stored. A value of 0 means that the data pointer is invalid or unrecognized and cannot be stored.
- **Max Records:** an unsigned integer representing the total number of records the log is capable of holding. In order to maintain a one-for-one relationship in parallel logs (Sequence of Events State and Sequence of Events Snapshot logs, for example), the maximum number of records that a log can store is defined by the log that holds the fewest records. Logs capable of holding more records are restricted.
- **Reset Status:** When the value of this register is "1," the log is currently being reset, i.e., the log files are being cleared.

5.1.1 Log Download Using Non-increment Index Method

NOTES:

- This method is offered for backward compatibility and can be applied only to the System Events log and historical logs 1 and 2.
- In the following sections, the designation "first 128 bytes of the log" is a physical description based on the absolute address of the memory allocated to the log. The first (oldest) record in the log may not be located at the beginning of the log.

A Modbus master uses a log window consisting of 64 registers to retrieve logs from a Nexus® 1450 meter slave. A log is divided into numbered sections called "indexes," which are transferred through the log window in sequence.

- Window index tells the Modbus master which 128-byte section of the log the window is using to retrieve the log. The block of window index registers for the different logs begin at 38145.

- When the Modbus master writes a new value to the window index, a new section of the log will fill the window. For example, when the Index is 0000H, the first 128 bytes of the log are available in the window; when the Index is 0001H, the second 128 bytes of the log are available in the window, and so on.
- When a value other than FFFFH is written to the window index, the index is updated and the log is paused. A 30-second timer is initiated on the log write action. If the timer expires (a new index is not written within 30 seconds), the log will continue logging.
 - Should multiple ports access the same log simultaneously, the log will pause while any 30-second timer is running. The log will continue logging only when **all** ports time out.
- When read, the window index returns the number of the index currently in use by the window. When written to, the window index sets a new index for the window to retrieve the log.
- Window mode defines the two available modes the window may use to retrieve a log: Download mode and Time Stamp mode. The window mode block begins at register 38209.
 - Download Mode: In Download mode, the log window accesses consecutive, 128-byte blocks of the log. For example, when the Window Index is 0000H, the first 128 bytes of the log are available in the Window; when the Index is 0001H, the second 128 bytes of the log are available in the Window.
 - Time Stamp Mode: In Time Stamp mode, the log window accesses the time stamp of the records, in blocks of 16 time stamps at a time. When the window index is 0000H, the time stamp of the first 16 records (records 0-15) in the log are available in the window; when the window index is 0001H, the time stamp of the second 16 records (records 16-31) in the log are available in the window, and so on.
- Log Window: The log window is a 64-register, 128-byte view of a log. The window index defines which part of a log is currently available in the window. Log windows begin at register 38273.

5.1.1.1: Steps for Downloading a Log

The following steps outline the process for downloading a log. Details and examples for downloading time stamps and records follow in Sections 5.1.1.2 and 5.1.1.3.

1. Read the Nexus® meter's Programmable Settings block (registers 45057-53248).
This information will be used to interpret the data retrieved from the log.
2. Pause the log by writing an initial, non-FFFFH value to the log window index register.
3. Read and store the log header information.
4. Determine the starting window index and window offset. Within the meter's physical memory, the log is divided into blocks of 128 bytes sequentially numbered. Window index gives the number of a block, and window offset gives the position inside that block.
5. Determine the largest window index and window offset.
6. Determine the ending window index and window offset.
7. Set the window mode to download mode.
8. Set the log window index to the starting window index.
9. Read the window from starting offset to the end of the window.
10. Increment the window index.
11. Read the window from beginning to end.
12. Repeat steps 10 and 11 until the largest or ending window index is reached.
 - If the largest window index is reached, go to step 13.
 - If the ending window index is reached, go to step 15.
13. Read window from beginning, up to (but not including) the largest offset.
14. Set window index to 0. Go to step 12.
15. Read window from the beginning, up to (but not including) the ending offset.

5.1.1.2: Downloading Time Stamps with Examples

The following steps detail the process for downloading time stamps from a log, using values from Historical Log 1 as an example.

1. Read the Nexus® meter's programmable settings block (registers 45057-53248).
2. Pause the log by writing an initial, non-FFFFH value to the Historical Log 1 window index register.
Example: Write 0000H to the window index for Historical Log 1, register 38145.
3. Read and store the Historical Log 1 header information.
Example: Historical Log 1 Snapshot header

Address	Description	Example Value
36865-36866	Historical Log 1 Snapshot Memory Size	1851392
36867	Historical Log 1 Snapshot Record Size	64
36868	Historical Log 1 Snapshot First Index	501
36869	Historical Log 1 Snapshot Last Index	500
36870-36873	Historical Log 1 Snapshot First Time Stamp	7/10/14 12:32:00.000
36874-36877	Historical Log 1 Snapshot Last Time Stamp	7/30/14 14:40:00.000
35878-36881	Historical Log 1 Snapshot Valid Bitmap	FFFC 0000
36882	Historical Log 1 Snapshot Max Records	28928

4. Determine the starting window index and starting window offset using these formulas:
Starting Window Index = $\text{Int}([8 \times \text{First Index}]/128)$.
Starting Window Offset = $(8 \times \text{First Index}) \% 128$.
Example:
Starting Window Index: $\text{Int}(8 \times 501/128) = \text{Int}(31.3125) = 31$.
Starting Window Offset: $(8 \times 501) \% 128 = 40$.

5. Determine the largest window index and the largest window offset using these formulas:

$$\text{Largest Window Index} = \text{Int}([8 \times \text{Max Records}]/128).$$

$$\text{Largest Window Offset} = (8 \times \text{Max Records}) \% 128.$$

Example:

$$\text{Largest Window Index} = \text{Int}([8 \times 28928]/128) = \text{Int}(1808) = 1808$$

$$\text{Largest Window Offset} = (8 \times 28928) \% 128 = 0$$

6. Determine the ending window Index and the ending window offset using these formulas:

$$\text{Ending Window Index} = \text{Int}([8 \times \{\text{Last Index} + 1\}]/128)$$

$$\text{Ending Window Offset} = (8 \times [\text{Last Index} + 1]) \% 128$$

Example:

$$\text{Ending Window Index} = \text{Int}([8 \times \{500 + 1\}]/128) = \text{Int}(31.3125) = 31$$

$$\text{Ending Window Offset} = (8 \times [500 + 1]) \% 128 = 40$$

7. Set the window mode to download mode by writing the Timestamp Mode code (0001H) to the Log Window Mode register.

Example:

Write the value 0001H to the window mode for Historical Log 1, register 38209.

8. Set the window index to the starting window index.

Example:

Write the value 31 (001FH) to the Interval 1 log window index, register 38145.

9. Read window from starting offset to end of window:

$$\text{Starting offset} = \text{First Register of Window} + (\text{starting Window offset}/2).$$

Example:

$$38273 + (40/2) = 38293$$

Read from 38293 - 38336.

10. Increment the window index.

Example:

Write the value 32 (0020H) to the Historical Log 1 window index, register 38145.

11. Read the Window from beginning to end.

Example:

Read the Historical Log 1 window from register 38273 to 38336.

12. Repeat steps 10 and 11 until the largest or ending window index is reached.

- If the Largest Window Index is reached, go to step 13.
- If the Ending Window Index is reached, go to step 15.

Example:

If Window Index = 1808, go to step 13. If Window Index = 31, go to step 15.

13. Read Window from beginning, up to (but not including) the largest offset:

Largest Offset = First Register of Window + (largest Window offset/2).

Example:

(Index = 1808).

$38273 + (0/2) = 38273$.

Read from 38273 up to 38273; therefore, read nothing.

14. Set Window Index to 0. Go to step 12.

Example:

Write the value 0 (0000H) to the window index Historical Log 1, register 38145.

15. Read Window from the beginning, up to (but not including) the ending offset:

Ending Offset = First Register of Window + (Ending Window Offset/2).

Example: (Index = 31).

$38273 + 40/2 = 38293$.

Read from 38273 up to (but not including) 38293; therefore, read 38273 - 38292.

5.1.1.3: Downloading Records with Examples

The following steps detail the process for downloading records from a log, using values from an Historical Log 1 as an example.

1. Read the Nexus® meter's programmable settings block (registers 45057-53248).
2. Pause the log by writing an initial, non-FFFFH value to the log window index register.

Example: Write 0000H to the window index for Historical Log 1, register 38145.

3. Read and store the log header information.

Example: Historical Log 1 Log Snapshot Header

Address	Description	Example Value
36865-36866	Historical Log 1 Snapshot Memory Size	1851392
36867	Historical Log 1 Snapshot Record Size	64
36868	Historical Log 1 Snapshot First Index	501
36869	Historical Log 1 Snapshot Last Index	500
36870-36873	Historical Log 1 Snapshot First Timestamp	7/10/99 12:32:00.000
36874-36877	Historical Log 1 Snapshot Last Timestamp	7/30/99 14:40:00.000
36878-36881	Historical Log 1 Snapshot Valid Bitmap	FFFC 0000
36882	Historical Log 1 Snapshot Max Records	28928

4. Determine the starting window index and starting window offset using these formulas:

$$\text{Starting Window Index} = \text{Int}([\text{Record Size} \times \text{First Index}]/128).$$

$$\text{Starting Window Offset} = (\text{Record Size} \times \text{First Index}) \% 128.$$

Example:

$$\text{Starting Window Index: } \text{Int}(64 \times 501/128) = \text{Int}(250.5) = 250.$$

$$\text{Starting Window offset: } (64 \times 501) \% 128 = 64.$$

5. Determine the largest window index and the largest window offset using these formulas:

$$\text{Largest Window Index} = \text{Int}([\text{Record Size} \times \text{Max Records}]/128).$$

$$\text{Largest Window Offset} = (\text{Record Size} \times \text{Max Records}) \% 128.$$

Example:

$$\text{Largest Window Index} = \text{Int}([64 \times 28928]/128) = \text{Int}(14464) = 14464.$$

$$\text{Largest Window Offset} = (64 \times 28928) \% 128 = 0.$$

6. Determine the ending window index and the ending window offset using these formulas:

$$\text{Ending Window Index} = \text{Int}([\text{Record Size} \times \{\text{Last Index} + 1\}]/128).$$

$$\text{Ending Window Offset} = (\text{Record Size} \times [\text{Last Index} + 1]) \% 128.$$

Example:

$$\text{Ending Window Index} = \text{Int}([64 \times \{500 + 1\}]/128) = \text{Int}(250.5) = 250.$$

$$\text{Ending Window Offset} = (64 \times [500 + 1]) \% 128 = 64.$$

7. Set the window mode to download mode by writing the Download Mode code (0000H) to the log window mode register.

Example:

Write the value 0000H to the window mode for Historical Log 1, register 38209.

8. Set the window index to the starting window index.

Example:

Write the value 250 (00FAH) to the Historical Log 1 window index, register 38145.

9. Read window from starting offset to end of window:

$$\text{Starting offset} = \text{First Register of Window} + (\text{starting Window offset}/2).$$

Example:

$$38273 + (64/2) = 38305.$$

Read from 38305 - 38356.

10. Increment the window index.

Example:

Write the value 251 (00FBH) to the Historical Log 1 window index, register 38145.

11. Read the window from beginning to end.

Example:

Read the Historical Log 1 window from register 38273 to 38336.

12. Repeat steps 10 and 11 until the largest or ending window index is reached.

- If the largest window Index is reached, go to step 13.
- If the ending window Index is reached, go to step 15.

Example:

If Window Index = 14464, go to step 13.

If Window Index = 250, go to step 15.

13. Read window from beginning, up to (but not including) the largest offset.

Largest Offset = First Register of Window + (Largest Window Offset/2).

Example: (Index = 14464).

$38273 + (0/2) = 38273$.

Read from 38273 up to 38273; therefore, read nothing.

14. Set Window Index to 0. Go to step 12.

Example:

Write the value 0 (0000H) to the window index Historical Log 1, register 38145.

15. Read window from the beginning, up to (but not including) the ending offset.

Ending offset = First Register of Window + (ending Window offset/2).

Example: (Index = 250).

$38273 + 64/2 = 38305$.

Read from 38272 up to (but not including) 38304; therefore, read 38273 - 38304.

5.1.2: Log Download Using Auto-Increment Index Method

Note that this method is offered for backward compatibility and can only be applied to the System Events log and Historical logs 1 and 2.

- Auto Incrementing Interface
- Auto Increment Configuration (register 39423, 0x099FE):
 - When read, this register returns the configuration in use (shown on the next page) by the auto increment log window to access logs on this port.
 - When written, this register sets the configuration used by the auto increment log window to access logs on this port. Each port accesses a separate, independent configuration through this register, allowing all four ports to access logs with different configurations.
 - The least significant byte indicates which log is being accessed, as shown below:

0x000	Historical Log 1
0x001	Historical Log 2
0x00A	System Event Log
0x00E-0x0FF	Undefined

- The most significant byte defines the following modes, Paused Download mode (0x000), and Running Download mode (0x001).
 - In Paused Download mode (0x000), the log being accessed is paused - new records are not added to the log while it is paused.
 - In Running Download mode (0x001), the log being accessed is not paused - new records may be added to the log. When downloading in this mode, it is possible that records may be overwritten before, or even during, access to that record.
- Auto Increment Window Index (0x099FF)
 - When read, this register returns the index used by the auto increment log window to access logs on this port.

- When written, this register sets the index used by the auto increment log window to access logs on this port. Each port accesses a separate, independent index through this register, allowing all four ports to access different areas of logs at the same time.
- When read, the index is incremented before being returned in the Modbus response. If the Auto Increment mode is Paused Download mode (0x001xx in register 0x099FE), the appropriate log is paused, preventing the addition of new records while the log is being accessed. A 30-second timer is initiated on these reads. Should the timer run out (the index is not incremented/read in 30 seconds), the appropriate log will be allowed to continue logging.
- Should multiple ports access the same log simultaneously, the log will be paused while the 30-second timer is running; the log will be allowed to continue logging only when **all** ports time out.
- Auto Increment Log Window (0x09A3F)
 - These registers are a 128-byte window into a log, as specified in the auto increment configuration (register 0x099FE). Depending on the auto increment window index, a different 128-byte area of a log can be accessed.

5.1.2.1: Download using Auto Increment Window Sequence

1. Software should select the appropriate download mode and log through the auto increment configuration register (0x000xx or 0x001xx to register 0x099FE).
2. Software should read the appropriate header information.
3. Software should initialize the window index by writing a value 1 less than the desired starting index to the auto increment window index register.
Example: To start at window 0, write:
0x0FFFF to register 0x099FF.
4. Software should store the log header information.
5. Software should read the auto increment window index and auto increment log window (registers 0x099FF-0x09A3F).
6. Software should verify the expected value for the auto increment window index.

7. Software should store the first 128 bytes of the log from the auto increment log window.
8. Repeat steps 5-7 until the desired amount of the log has been read and stored. The number of reads of the window can be determined by dividing the total memory in the log by the window size.

5.1.2.2: Download Using Auto Increment Window Sequence and Function Code 35

1. Software should select the appropriate download mode and log through the auto increment configuration register (0x000xx or 0x001xx to register 0x099FE).
2. Software should read the appropriate header information.
3. Software should initialize the window index by writing a value 1 less than the desired starting index to the auto increment window index register.
Example: To start at window 0, write:
0x0FFFF to register 0x099FF.
4. Software should store the log header information.
5. Software should read the auto increment window index and auto increment log window (registers 0x099FF-0x09A3F) n times using the non-standard Modbus Function Code 67 Read Holding Registers Multiple Times.
6. Software should verify the expected values for the auto increment window index.
7. Software should store each of the 128 byte segments of the log from the auto increment log window.
8. Repeat steps 5-7 until the desired amount of the log has been read and stored. The number of reads of the window can be determined by dividing the total memory in the log by the window size, and again by dividing by the number of repeats being used with Function Code 67.

6: Meter Programmable Settings Block

Chapter 2 contains the Nexus® 1450 meter's Modbus Register Map. This chapter gives a detailed description of each of the Programmable Settings blocks.

6.1: Communication Settings Block (45057-45074)

- Device Address - 2 bytes, unsigned integer, ranging from 0000H to FFFFH
- Protocol - 1 byte, unsigned integer
- Baud Rate - 1 byte, unsigned integer
- Parity - 1 byte, unsigned integer
- Stop Bits - 1 byte, unsigned integer
- Data Bits - 1 byte, unsigned integer
- Response Delay - 1 byte, unsigned integer.
- Port Mode - 1 byte, unsigned integer; The value 1 means Master; value 0 means Slave. Port 1 is always a Slave.

Communication Settings Block Specifications						
Value	Protocol	Baud Rate	Parity	Stop Bits	Data Bits	Response Delay (ms)
0	Modbus ASCII	4800	None		5	0.00
1	Modbus RTU	9600	Even		6	0.25
2	DNP 3.0	19200	Odd		7	0.50
3		38400	Mark		8	0.75
4		57600	Space			1.00
5		115200				1.25
6						1.50
7				1 stop		1.75
8				1.5 stop		2.00
9-14						2.25-3.50
15				2 stop		3.75
16-255						4.00-63.75

6.2: Limit Settings Block (45077-45204)

- Limit Comparisons - Internal Representations
- A Nexus® meter has 32 Limits Objects.
- Each Limit Object performs two independent comparisons with a selected computed value and combines them into a combined output. Information needed to perform these actions: channel identification, comparison values, comparison directions and combination type.
- Channel identification is performed by referencing the internal data table of the meter, by specifying the Line Number and Point Number for a particular value. For example: to monitor 1 second VAN values, use Line 34, Point 0; 1 second VBN, use Line 34, Point 1; 1 second IA, use Line 36, Point 0; Thermal Average VAN, use Line 51, Point 0. To leave a Limit unassigned, use Line 65535, any point.
- Comparison values are entered using percentages relative to the programmed full scales of the system. For VAN, the phase-to-neutral Voltage Full Scale would be referenced. If it is programmed to 120.0 V secondary with a phase voltage PT of 120:1, then a comparison of 13.2 kV primary would be a limit of 108 V secondary or 90.00% of the Full Scale. A 90.00% comparison for IA with a phase Current Full Scale of 5.0 A secondary and a phase current CT of 2000:5 would be a comparison of 4.5 A secondary or 1800 A primary. Negative percentages would be used where appropriate (Watts, VAR, etc.). Special cases like PF and KF would depend on fixed internal Full Scales. Human interfaces could represent this in terms of quadrature and angle, instead of the internal percentage representation.
- Each comparison has a direction associated with it - Above or Below. A 90.00% comparison could be for above 90.00% or below 90.00%.
- Finally, each limit object is able to produce a third output which is a combination of the two comparisons. This combination could be an AND, OR, NAND, NOR, XOR or Hysteresis. So, a user can produce a band of between 40.00% and 80.00% by combining above 40.00% AND below 80.00%; over 110.00%/under 90.00% alarms by combining above 110.00% OR below 90.00%, on after over 110.00%, off after below 90.00% by combining above 110.00% and below 90.00% with Hysteresis.

- The structure for a combination is:

2 byte	Line Number
1 byte	Point Number
1 byte	Direction and Combination (SAB)
2 byte	Comparison 1 Percentage (Value 1)
2 byte	Comparison 2 Percentage (Value 2)

Total of 8 bytes per Limit Object, total of 256 bytes for 32 Limit Objects.

- The structure for the Direction and Combination byte is:

Bits 7-5	Unused, set to 0
Bit 4	Negate combination (AND -> NAND, etc.)
Bits 3-2	00 = AND combination 01 = OR combination 10 = XOR combination 11 = Hysteresis combination
Bit 1	0 = Comparison 2 is below 1 = Comparison 2 is above
Bit 0	0 = Comparison 1 is below 1 = Comparison 1 is above

- Hysteresis combination uses comparison 1 to set the combination, and comparison 2 to clear the combination. If both inputs are asserted, comparison 1 has priority. The usual arrangement would be to program comparison 1 to above a large value and comparison 2 to below a small value. When the monitored value goes above comparison 1, the combination will be set to a 1, until the monitored value goes below comparison 2, when the combination will be cleared to a 0.

- Poll-able information would consist of:
 - 32 bits Comparison 1 states for 32 limits
 - 32 bits Comparison 2 states for 32 limits
 - 32 bits Combination states for 32 limits
- Total of 96 bits (12 bytes)

6.3 Historical Log Settings Block (45205-45464)

- Historical Log 1 Data Pointers (45205 - 45332), Historical Log 2 Data Pointers (45333 - 45460).
- These registers indicate which information to include in a record in the Historical Log. Each Data Pointer has the following 4 (four) byte structure:

Data Pointer 4-Byte Structure		
Size	Format	Description
2 byte	Unsigned integer	Line number
1 byte	Unsigned character	Point number
1 byte	unsigned character	Reserved

- A Line Number is an index into the Communication Table. Example: Line Number 11 is for the 12th line in the Communication Table, 0.1 second Phase-to-Neutral Voltages. Data Pointers with Line Numbers greater than the number of lines in the table are ignored.
- A Point Number is an index into a Line in the Communication Table. Example: Point Number 1 is for the second entry in a Line. Line Number 11, Point Number 1 is the 2nd in the 12th line, 0.1 second VBN. Data Pointers with Point Numbers greater than the number of points for the line are ignored.
- Snapshot Interval for Historical Log 1 (45361), for Historical Log 2 (45462).
 - One register, 2 byte unsigned integers ranged from 0 to 3600.
 - The unit is 1 second.

- Historical Log 1 Record Size (45463), Historical Log 2 Record Size (45464).
- This register is an enumeration for the size of a record in the Historical Log. The valid values are:

0x00004 = 16 byte records

0x00000 = 32 byte records

0x00001 = 64 byte records

0x00002 = 128 byte records

0x00003 = 256 byte records

6.4: High Speed Inputs Settings Block (45501-45723)

- Input Name - 8 registers, 16 bytes, 16 characters for the name.
- Input Open Label - 8 registers, 16 bytes, 16 characters for label, Not Shorted, State 1.
- Input Closed Label - 8 registers, 16 bytes, 16 characters for label, Shorted, State 0.
- Input Value - 2 registers, currently not used.
- Input Mode - Bit 0 will define the normal condition of the input.

High Speed Input Settings		
Bit 0	Normal Condition	Binary State
0	Open	State 1 (not shorted)
1	Closed	State 0 (shorted)

6.5: External Digital Output Module Settings Block (45729-45808)

- Up to 4 External Digital Output Modules can be addressed in this block.
- Address is 2 bytes, unsigned integers.
- A value of 0x0FFFF for an address indicates that this device is unused.
- Line Number is 2 bytes, unsigned integers.

- Point Number is 1 byte, unsigned integers.
- Line Number and Point Number will point which limit is going to be used for the relay of the External Digital Output Module. See 6.5: External Digital Output Module Settings Block (45729-45808), on page 6-5.
- Up to 4 External Analog Output Modules can be addressed in this block.
- Address is 2 bytes, unsigned integers.
- A value of 0x0FFFF for an address indicates that this device is unused.
- Line Number is 2 bytes, unsigned integers.
- Point Number is 1 byte, unsigned integers.
- Line Number and Point Number will point which limit is going to be used for each output of the External Analog Output Module.

6.7: External KYZ Output Module Settings Block (45893-45907)

- Up to 4 External KYZ Output Modules can be addressed in this block.
- Address - 2 bytes, unsigned integers.
- A value of 0x0FFFF for an address indicates that this device is unused.
- The energy assignments are as follows:

KYZ Output Relay Byte Energy Assignments	
Value	Energy Assignment
0	Disabled
1	Q (1+4)Wh
2	Q1 VAh
3	Q1 VARh
4	Q4 VAh
5	Q4 VARh
6	Q (2+3)Wh
7	Q2 VAh
8	Q2 VARh
9	Q3 VAh
10	Q3 VARh
11-18	Internal Inputs Accumulations 1-8
19-22	Internal Input Aggregator 1-4
23-30	External Digital Input Module 1 in Accumulator 1-8
31-38	External Digital Input Module 2 in Accumulator 1-8
39-46	External Digital Input Module 3 in Accumulator 1-8
47-54	External Digital Input Module 4 in Accumulator 1-8

6.8: CT & PT Ratio Settings Block (45909-45924)

- Address is 2 registers, 4 bytes, unsigned integers.
- Primary numbers and secondary numbers are in these blocks for the proper ratios.

6.9: Hookup and Time Settings Block (45925-45944)

- Hookup is 1 register, 2 bytes.
- High byte is Configuration Bits; Voltage selection.
 - When bit 0 is cleared, 150V.
 - When bit 0 is set, 300V.
- Low byte is Wye/Delta selection.

Wye/Delta Byte Energy Assignments	
Value	Assignment
0	Wye
1	Delta, 3 CTs
2	Delta, 2 CTs
3	2.5 Element
4	4 Wire Delta

- Frequency is currently not used.

- Time Zone is 1 register, 2 bytes, signed integer. The zone descriptor value varies from -13 to +13. The zone descriptor value 0 represents Greenwich Mean Time.

Time Zone Descriptor	
Value	Zone Descriptor
0	ZD0
50	ZD + 0.5
100	ZD + 1
150	ZD + 1.5
-100	ZD - 1
-150	ZD - 1.5

- Daylight Savings Time Enable is 1 byte, unsigned integer.

Daylight Savings Time Enable	
Value	Zone Descriptor
0	Disabled
1	Use Clock chip
2	Use programming block

- Transformer Loss Compensation (TLC) Enable is 1 byte, unsigned integer.

Transformer Loss Compensation (TLC) Enable		
Value	Bits 0 & 1	Bit 2
0	Disabled	Add
1	Iron only	Subtract
2	Copper only	
3 Both		

- Internal KYZ Form is 1 byte bit map. Refer to the Internal KYZ Settings Block (46330) for more detail.
 - A bit value of 0 = Form C = Pulse of the relay.

- A bit value of 1 = Form A = Transition of the relay.

Internal KYZ Form Relay Assignments								
Bit Number	7	6	5	4	3	2	1	0
Relay Assignments	1	2	3	4	LED			

- Daylight Savings Time Start/End.
- Address - 4 registers, 8 bytes. Each byte has unsigned integer values (example below).

Daylight Savings Time Start/End Byte Assignments								
Register	45929		45930		45931		45932	
Byte	High	Low	High	Low	High	Low	High	Low
Assignments	Reserved	Reserved	Month	Day	Hour	Minute	Second	Reserved

- % Loss of Watt or VAR
- Address - 2 registers, 4 bytes, 2 bytes for integers and 2 bytes for fractions.

6.10: Average Settings Block (45949-45952)

- Thermal and Block Averaging Time Interval is 1 register, 2 bytes unsigned integer. The unit is in 1 second.
- Rolling Average Sub-Interval is 1 register, 2 bytes unsigned integer.
- Number of Sliding Windows is 1 byte, unsigned integer.
- Time of Use Log Enable is as follows:.

Time of Use Enable	
Value	Description
0	disabled
1 - 255	enabled

6.11: Exception Profile Block (45953-45968)

This block is not yet defined.

6.12: Device Label Settings Block (45969-45992)

- Meter Designation is 8 registers, 16 bytes Hex ASCII.
- Auxiliary Voltage Label is 8 registers, 16 bytes Hex ASCII.
- Measured Neutral Current Label is 8 registers, 16 bytes Hex ASCII.

6.13: Network Card Settings Blocks (30153-30208, 51197-51198 - Ports 5 and 6; 30209-30720 - Port 5; 45993-46016, 50785-51154, 52297-52300 - Port 6)

The Modbus registers for the ports 5 and 6 settings are distributed in different parts of the Programmable Settings block and the Enhanced Programmable Settings block. Since the settings themselves have the same characteristics irrespective of the card, they are all explained in this section.

- IEC 61850 GOOSE Message Configuration is MSB first; Bits 31-16 reserved; Bits 15-00: when set, enables 16th - 1st position of the memory for received GOOSE message for Boolean data type input to trigger waveform capture.
- Port Use is MSB first; Byte 7-4: reserved; Byte 3: GE EGD (Data Producer); Byte 2: Modbus TCP Client; Byte 1: Alarm/Email; Byte 0: SNTP.
- IP Address is 2 registers, 4 bytes. Each byte has unsigned integer value.
- Subnet Mask is 2 registers, 4 bytes. Each byte has unsigned integer value.
- Default Gateway is 2 registers, 4 bytes. Each byte has unsigned integer value.
- Port 2 Baud Rate is 1 byte, unsigned integer.

Port 2 Baud Rate Values	
Value	Baud Rate
0	4800
1	9600
2	19200
3	38400
4	57600
5	115200

- Gateway Delay - 1 byte, unsigned integers.

Gateway Delay in Milliseconds	
Value	Delay in ms
0	0
1	15
2-255	30-3825

- Mode 1 is Network Mode 1. 1 register, only High Byte is used.
 - Bit 7 is IP Address Resolution.
 - A bit value of 1 means use DHCP server.
 - A bit value of 0 means use IP address of NEXUS/EEPROM.
 - Bits 0-6 are Reserved.
 - Computer Name is 8 registers, 16 bytes Hex ASCII.
 - Server IP Address is 2 registers, 4 bytes. Each byte has unsigned integer values.
- Mode 2 is Network Mode 2; 1 byte.
 - Bit 7 is IP Address Resolution
 - A bit value of 0 means use IP address of NEXUS/EEPROM.
 - Bits 0-6 are Reserved
 - Computer Name
 - DNS Server 1 IP Address is 2 registers, 4 bytes. Each byte has unsigned integer values.
 - DNS Server 2 IP Address is 2 registers, 4 bytes. Each byte has unsigned integer values.
 - Server / Service Enable Bits - 32 Bits - Reserved for future use.
 - The next 4 bytes are undefined.

- Email Client Settings

Email Mode															
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Bit 15: Require Authorization 1=No, 0=Yes															

- MSB first, send email on:
 - Bits 31-10: undefined
 - Bit 9: Transient capture
 - Bits 8-6: reserved
 - Bit 5: not used
 - Bit 4: Relay output change
 - Bit 3: PQ (CBEMA) event
 - Bit 2: Waveform capture
 - Bit 1: Digital input status change
 - Bit 0: Limit status change

- DNP LAN/WAN

DNP LAN/WAN Bitmap							
7	6	5	4	3	2	1	0

- Mode is a 1 byte unsigned integer.
- Bitmap Set is an 8-bit bitmap.
 - Bit 7 is TCP Enable.
 - A value of 0 means DNP over TCP listening point disabled.
 - A value of 1 means DNP over TCP listening point enabled.
 - Bit 6 is UDP Enable.

- A value of 0 means DNP over UDP end point disabled.
- A value of 1 means DNP over UDP end point enabled.
- Bit 5 is Validate Client Point.
 - A value of 0 means no validation and any port is accepted.
 - A value of 1 means validate connections against the first 1-4 entries.
- Bit 4 is UDP Response Behavior.
 - A value of 0 means respond to Client port.
 - A value of 1 means respond to programmed UDP respond port.
- Bit 3 to Bit 0 are reserved.
- UDP Addressing is an 1 byte unsigned integer.
- Validate Connection Count is an 1 byte unsigned integer.
- TCP Listen Port is a two byte unsigned integer - TCP listening port.
- UDP Listen Port is a two byte unsigned integer - UDP listening port.
- Multicast Group Address is reserved for future use.
- UDP Respond Port is a 2 byte unsigned integer.
 - A value of 0 means respond to the Client port.
 - A value of 1 means respond to the programmed UDP response port.
- SNTP: Sync source, MSB first;
 - Byte 1: Sync source (0=IRIG-B, 1=SNTP, 2=Line sync, 3=PTP (IEEE 1588), 255=No sync.
 - Byte 0: Mode (0=Unicast, 1=Broadcast - not implemented currently)
 - Port defaults to 123 if equal to 0x000 or 0xFFFF
 - Sync Rate in minutes

- Timeout in seconds
- Server 1 Name or IP address in ASCII
- Server 2 Name or IP address in ASCII
- Port Numbers
 - Web server listen port number (valid numbers greater than 0 and less than 65536).
 - GE EGD data port number (valid numbers greater than 0 and less than 65536).

6.14: Block Window Average External Synchronization Block (46017)

- BWA Synch Enable is 1 byte.
 - Instead of using the time interval, the Nexus® meter can calculate the Thermal and Block average when the pulse is detected on one of the High Speed Inputs.

Block Window Average Synchronization Assignments	
Value	Assignments
0	Disabled
1-255	Enabled

- BWA Synch Mask is 1 byte. Only one input can be selected at a time. That means only one of the 8 bits can be set at a time.

Block Window Average Synchronization Mask Input Assignments								
Bit	0	1	2	3	4	5	6	7
Input Number	1	2	3	4	5	6	7	8

- Proper Value for each Assigned Input:

Proper Value for Block Window Average Synchronization Mask Assigned Inputs								
Assigned Input	1	2	3	4	5	6	7	8
Proper Value	1	2	4	8	16	32	64	128

6.15: Display Configuration Block (46018)

- Display Configuration Block is 1 register, 2 bytes.
 - Bit 15: Only applies to the voltage reading.
 - A bit value of 1 = Primary voltage displayed.
 - A bit value of 0 = Secondary voltage displayed.
- Bit 0-14 is Reserved.

6.16: Energy Direction Block (46019)

- Received Energy Direction is 1 register, High byte only.

Energy Direction Block Values	
Value	Description
0	(Q1+4)W = Received and (Q2+3)W = Delivered
1	(Q1+4)W = Delivered and (Q2+3)W = Received

- Power Factor Labeling - 1 register, Low Byte only.

Power Factor Label Values	
Value	Description
0	Method 1 = Q1+ lag, Q2- lag, Q3- lead, Q4+ lead
1	Method 2 = Q1+ lag, Q2- lead, Q3+ lag, Q4- lead
2-255	Method 3 = Q1+ lag, Q2- lag, Q3- lead, Q4+ lead

6.17: Reserved for Future Use (46020)

6.18: Full Scale Block (46021-46036)

- Full Scale Block is 2 registers, 4 bytes - 2 bytes integers and 2 bytes fraction values.

6.19: External Module Software Interface Block (46053-46196)

- External Module Types is a 1 byte value, unsigned integer.
- External Module Slots is a 1 byte value, unsigned integer.

- External Module Label is 8 registers, 16 bytes; Hex ASCII.

External Module Types and Slots		
Value	Type	Slot
0	Not assigned	1
1	KYZ	2
3	Analog Output 4-20 mA, 4 channel	4
4	Analog Output 4-20 mA, 8 channel	
6	Analog Output 0-1 mA, 4 channel	
6	Analog Output 0-1 mA, 8 channel	
7	Digital Output	

6.20: External Module Port Assignment Block (46197-46206)

- Port Assignment bytes are enumerated as in the following table:

External Module Port Assignments	
Value	Assignment
0x000	Port 4
0x001	Port 3
0x002	Port 2
0x003	Port 1 (232/485)
0x004	Diagnostic Port (not currently in use)

6.21: Manual Control Relay Block (46207-46208)

- Manual Control Relay Settings are 1 register, 2 bytes.
- Up to four Relay Output Modules can be attached to a Nexus® meter. A total of 16 relays can be controlled. The table below indicates which bit controls which relay.

Relay Control																
Modules	Module 1				Module 2				Module 3				Module 4			
Bits	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

- A bit value of 1 means Manual Relay Control Only.
- A bit value of 0 means ElectroLogic™ and Manual relay control.

6.22: Internal Input Pulse Accumulation Scale Factor Block (46209-46325)

- Scale Factors Block is 2 registers, 4 bytes unsigned integers.
- Aggregator Assignments is 1 byte unsigned integers.
- Pulse Accumulation Labels is 8 registers, 16 bytes; Hex ASCII.

Internal Input Pulse Accumulator Assignments		
Value	Energy	Assigned Aggregator
0	Q1 and Q4 Whr	None
1	Q2 and Q3 Whr	Add to Aggregator 1
		Add to Aggregator 2
		Add to Aggregator 3
		Add to Aggregator 4
		Subtract from Aggregator 1
		Subtract from Aggregator 2
		Subtract from Aggregator 3
		Subtract from Aggregator 4

- Nexus® Meter Watt hour Selection is a 1 byte unsigned integer.
- Aggregation Assignment is a 1 byte unsigned integer.

6.23: I²t and V²t Threshold Block (46326-46329)

- I squared T is 2 registers, 4 bytes. 2-byte integers, 2-byte fractions; Secondary Current Value.
- V squared T is 2 registers, 4 bytes. 2-byte integers, 2-byte fractions; Secondary Volt Value.

6.24: Internal KYZ Settings Block (46330-46372)

- Internal KYZ Enable is 1 byte.
- A bit value of 1 = KYZ is enabled.
- A bit value of 0 = KYZ is disabled.

Internal KYZ Enable Assignment	
Bit	Assignment
Bit 7	Test Pulse 1 LED
Bit 6	Test Pulse 2 LED
Bit 5	Pulse Output 1 LED/Relay 1
Bit 4	Pulse Output 2 LED/Relay 2

- Internal KYZ Pulse Width is a 1 byte, unsigned integer.

Internal KYZ Pulse Width						
Value	0	1	2	3	4	5-127
Pulse width in ms	Disable	5	10	15	20	25-635

- Internal KYZ Channel Assignment is a 1 byte, unsigned integer.

Internal KYZ Channel Assignment	
Value	Channel Assignment
0	+Qh Total,
1	-Qh Total,
2	Quad 1 Watthour,
3	Quad 2 Watthour,
4	Quad 3 Watthour,
5	Quad 4 Watthour,
6	Quad 1 VARhour,
7	Quad 2 VARhour,
8	Quad 3 VARhour,
9	Quad 4 VARhour,
10	Quad 1 VAhour,
11	Quad 2 VAhour,
12	Quad 3 VAhour,
13	Quad 4 VAhour,
14	N/A,

15	N/A,
16	N/A,
17	N/A,
18	N/A,
19	N/A,
20	Uncompensated VAhour Quad1+4, Total,
21	Uncompensated Wattagehour Quad1+4, Total,
22	Uncompensated Wattagehour Quad2+3, Total,
23	Uncompensated VARhour Quad1+2, Total,
24	Uncompensated VARhour Quad3+4, Total,
25	N/A,
26	N/A,
27	N/A,
28	N/A,
29	N/A,
30	N/A,
31	N/A,
32	Quad (1+2+3+4) VAhour,
33	Quad (1 + 4) Watthour,
34	Quad (2 + 3) Watthour,
35	Quad (1 + 2) VARhour,
36	Quad (3 + 4) VARhour,
37	N/A,
38	N/A,
39	N/A,
40	Quad (1+2+3+4) Watthour,
41	Quad (1+2+3+4) VARhour,
42	N/A,
43	N/A,
44	N/A,
45	N/A,
46	N/A,
47	N/A

- Internal KYZ Watt Hour per pulse is 2 registers, 4 bytes, 2 byte integer, 2 byte fraction.

- End of Interval Pulse - the meter can generate a pulse upon completion of a block window interval. This pulse is generated on one of the relays and the pulse width is selectable.

End of Interval Pulse			
Byte			
Value	Enable	Relay	Width (milliseconds)
0	Disable Pulse	Test Pulse 1 LED	5 ms
1	Enable Pulse	Test Pulse 2 LED	10 ms
2		Pulse Output 1 LED/Relay 1	15 ms
3		Pulse Output 2 LED/Relay 2	20 ms
4-126			(25-635)ms

6.25: Internal Input Pulse Accumulation Unit Label Block (46373-46420)

- Internal Input Pulse Accumulation Unit Label is 4 registers, 8 bytes. These labels are used to describe the units a pulse represents. Units are usually one word and are 8 characters or less.
- Examples of Units: Gallons, BTUs, Liters, Wh, kWh, VAh, etc.

6.26: ElectroLogic Block (46421-46804)

- The relay logic settings are as follows:

Bits 2-4	Combo Logic
000	AND
001	OR
010	XOR
011	Hysteresis
100	NAND
101	NOR
110	NXOR
111	NHysteresis

6.27: Limit Profile Label Block (46805-47060)

- Limit Profile Label block is 8 registers, 16 bytes; 16 characters.

6.28: External Analog Output Module Channel Update Block (47061-47062)

- This block is added to improve the update speed of what is sent to the External Analog Output Modules from the meter. It may be that not all channels of the External Analog Output Module are in use. The value indicates the number of External Analog Output Module channels that are refreshed per Modbus message. In the older versions of External Analog Output Modules, only one channel update was possible at a time.

External Analog Output Module Update Speed	
Value	Update
0	1 channel at a time
1	2 channels at a time
2	4 channels at a time
3	4 channels at a time
4-255	8 channels at a time

6.29: Miscellaneous DNP Settings Block (47063-47104)

- Scale for Analog Output of Average Pulse Accumulation is 1 byte unsigned integer.
- Pulse accumulation values are 8-byte. But the Analog Output Module can accept 4-byte quantity. Therefore, only 4 bytes out of 8 bytes will be sent to the Analog Output Module. This register decides which 4 bytes will be sent out.

Values	Bytes to be Sent Out
0	Bytes 7,6,5,4
1	Bytes 6,5,4,3
2	Bytes 5,4,3,2
3	Bytes 4,3,2,1
4	Bytes 3,2,1,0

- Energy in the Interval is a 1 byte unsigned Integer. This is the Interval Time for Energy in the Interval. The unit is in minutes; the range is from 60 to 0.
- DNP Time Synchronization Enable is 1 byte. The register address is 47064 (Lower Byte).
 - A value of 1 means that DNP Time Synchronization is enabled.
 - A value of 0 means that DNP Time Synchronization is disabled.

- DNP Time Synchronization Time Interval is 1 register, 2 bytes. The register address 47065.

Value	Time (1 minute interval)
0	No time synchronization
1	1 minute
2	2 minutes
...	...
60	1 hour
61	1 hour, 1 minute
...	...
1439	23 hours, 59 minutes
1440	1 day
1441-65535	1 day (default)

- Bitmap
 - Bit 13: Choice of Class 0 poll between Object 20 and Object 21.

Register	Value	Description
40766 (Bit 13)	1	Object 21
	0	Object 20

- Bit 12: Enable DNP Freeze Schedule.

Register	Value	Description
40766 (Bit 12)	1	Enabled
	0	Disabled

- DNP Freeze Date & Time is 4 registers, 8 bytes.

Register	Byte	Name	Range
47067 - High	7	Century	0-99
47067 - Low	6	Year	0-99
47068 - High	5	Month	1-12
47068 - Low	4	Day	1-31
47069 - High	3	Hour	0-23
47069 - Low	2	Minute	0-59
476070 - High	1	Second	0-50
476070 - Low	0	Centisecond	0 (always 0)

- DNP Freeze Interval is 1 register, 2 bytes.

Register	Byte	Name	Range
47071-High	1	Hour	0-48
47071-Low	0	Minute	0-59

6.30: Custom DNP Definition Block for Analog Input (Object 30) (47105-47360)

- Line number is a 2-byte unsigned integer.
- Point number is a 1-byte unsigned integer.
 - Line number and Point number will indicate the Analog Input value to be used for one of the points in Object 30.
- Reserved: 1 byte is reserved for future use.
- DeadBand is a 2-byte signed number (Percentage).
- Range is -328%/+327.8% -
- Unit is 0.01%
 - If the Current Analog Value is different from the Previous value by more than the Deadband percentage, the meter will generate an Analog Change Event value if it is assigned to any Class.
 - Class assignments (Currently only bits 5,4 and 3 are used) are 8-bit bitmap.
 - When bit 5 is set, the Analog Change Event value will not be generated.
 - When bit 5 is clear, bit 4 and bit 3 will assign the Analog Change Event value to a Class.

Class Assignments for Analog Change Event			
Bit 5	Bit 4	Bit 3	Class Assignment
0	0	0	No class
0	0	1	Class 1
0	1	0	Class 2
0	1	1	Class 3
1	X	X	No class
1	X	X	No class
1	X	X	No class
1	X	X	No class

- Reserved: 1 byte is reserved for future use.

6.31: Custom DNP Definition Block for Binary Counter (Object 20) (47361-47424)

- Line number is a 2-byte unsigned integer.
- Point number is a 1-byte unsigned integer.
 - Line number and Point number will indicate the Binary Counter value to be used for one of the point in Object 20.
- Scaling is a 1-byte unsigned integer.
- Range is 0-15.
 - The meter has an 8-byte Binary Counter Value, while DNP can only give a 4-byte value. By using this scaling, the user can get the proper range of data. The scaling value represents the power of 10.
- Delta Values is 4-byte unsigned integer
 - If the Current Binary Counter value is different from the Previous value more than Delta values, the Counter Change Event value will be generated if it is assigned to a Class.

- Class assignments (Currently bits 5,4,3,2,1 and 0 are used) is 8-bit bitmap.
 - When bit 5 is set, the Counter Change Event value will not be generated.
 - When bit 5 is clear, bit 4 and bit 3 will assign the Counter Change Event value to a Class.

Class Assignments for Counter Change Event			
Bit 5	Bit 4	Bit 3	Class Assignment
0	0	0	No class
0	0	1	Class 1
0	1	0	Class 2
0	1	1	Class 3
1	X	X	No class
1	X	X	No class
1	X	X	No class
1	X	X	No class

- When bit 2 is set, the Frozen Counter Event value will not be generated.
- When bit 2 is clear, bit 1 and bit 0 will assign the Frozen Counter Event value to a Class.

Class Assignments for Frozen Counter Event			
Bit 2	Bit 2	Bit 0	Class Assignment
0	0	0	No class
0	0	1	Class 1
0	1	0	Class 2
0	1	1	Class 3
1	X	X	No class
1	X	X	No class
1	X	X	No class
1	X	X	No class

- Reserved: 7 bytes are reserved for future use.

6.32: Custom DNP Definition Block for Binary Input (Object 1) (47425-47456)

- Line number is a 2-byte unsigned integer
- Point number is a 1-byte unsigned integer
- Line number and Point number indicate the Binary Input value used for 8 points in Object 1.
- Class Assignments is 8-bit bitmap (1 byte).
- Bits 7, 6 and 5 will assign the Binary Input Change value to a Class.
- Bits 4 to bit 0 are not used.

Class Assignments for Binary Input Change			
Bit 7	Bit 6	Bit 5	Class Assignment
0	0	0	No class
0	0	1	Class 1
0	1	0	Class 2
0	1	1	Class 3
1	X	X	No class
1	X	X	No class
1	X	X	No class
1	X	X	No class

- Reserved: 4 bytes are reserved for future use.

6.33: Custom DNP Definition Block for Binary Output (Object 10) (47457-47458)

- Enable / Disable Relays (1-16) (2 bytes):
 - 0: Relay disabled
 - 1: Relay enabled

Bits	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Relays	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

- Enable / Disable Resets (17-24) (1 byte):
 - 0: Reset disabled
 - 1: Reset enabled

Bits	Resets
15	Log Reset
14	Maximum Reset
13	Minimum Reset
12	Energy Reset
11	Reset TOU Current Season and Current Month
10	Reserved
9	Reset KYZ Output Accumulations
8	Restart
7-0	Reserved

6.34: Custom DNP Definition Block for Global Values (47459-47463)

- When the master requests data from the object, it can specify the variation in the request so the master can get the data formatted for its use. When the master asks for Variation 0, the slave meter can respond with any variation(s). This programmable setting holds the variations available for a Variation 0 request.

Address	Object	Object Number	Variations Available for a Variation 0 Request
47459-High	Binary Input	1	1,2
47459-Low	Binary Input Change	2	1,2
47460-High	Binary Counter	20	1,2,5,6
47460-Low	Frozen Counter	21	1,2,5,6,9,10
47461-High	Counter Change Event	22	1,2,5,6
47461-Low	Frozen Counter Event	23	1,2,5,6
47462-High	Analog Input	30	1,2,3,4
47463-High	Analog Change Event	32	1,2,3,4

6.35: External Digital Output Module Labels Block (49793-50176)

- The External Digital Output Module Labels block is 8 registers, 16 bytes.
- Each relay, normally open, and normally closed can be named with 16 characters
- There are 4 of each label, for up to 4 modules.

6.36: Reserved for Future Use (50273-50784)

6.37: Reserved for Future Use (50785-50860)

6.38: Reserved for Future Use (51201-51712)

6.39: Energy Scale Settings (51713-51746)

- This block contains the registers shown in the table, below.

Energy Scale Settings							
Q1234 VAh	Q12 VARh	Q34 VARh	Q14 Wh	Q1 VAh (NA)	Q1 VARh (NA)	Q4 VAh (NA)	Q4 VARh (NA)
Q23 Wh	Q2 VAh (NA)	Q2 VARh (NA)	Q3 VAh (NA)	Q3 VARh (NA)	I ² T Phase A	I ² T Phase B (NA)	I ² T Phase C (NA)
V ² T Phase A	V ² T Phase B (NA)	V ² T Phase C (NA)	Q1 Wh	Q4 Wh (NA)	Q2 Wh (NA)	Q3 Wh (NA)	Q1234 VAh U (NA)
Q12 VARh U (NA)	Q34 VARh U (NA)	Q14 Wh U (NA)	Q23 Wh U (NA)	+Qh	-Qh	Q14 Wh TM (NA)	Q1 VAh TM (NA)
Q1 VARh TM (NA)	Q4 VAh TM (NA)	Q4 VARh TM (NA)	Q23 Wh TM (NA)	Q2 VAh TM (NA)	Q2 VARh TM (NA)	Q3 VAh TM (NA)	Q3 VARh TM (NA)
Pulse Acc 1	Pulse Acc 2 (NA)	Pulse Acc 3 (NA)	Pulse Acc 4 (NA)	Pulse Acc 5 (NA)	Pulse Acc 6 (NA)	Pulse Acc 7 (NA)	Pulse Acc 8 (NA)
Pulse Agg 1	Pulse Agg 2 (NA)	Pulse Agg 3 (NA)	Pulse Agg 4 (NA)	Sync	FVF	Op stat ot en	Op stat ot sel

- Each register contains 2 bytes. Each byte contains settings for a base quantity. The format of a byte is as follows:

Bit	7	6	5	4	3	2	1	0
Meaning	Digits			Unit		Decimal Places		

- Digits is a 3 bit field, which is offset by 2 to represent from 2 to 9 displayable digits.
- Unit is a 2-bit field, where the values from 0 to 2 represent units of Wh (100), k (103) and M (106).
- The value 3 is undefined and is treated the same as 2, signifying M (106).
- Decimal Places is a 3-bit field, which represent from 0 to 7 decimal places.
- Examples: For the following, the Q1234 VAh has a current value of 123,456,789.0123 VAh.

Register CA00H		Digits	Unit	D.P.	Pattern	Reading		Display
Hex	Binary					Hex	Decimal	
20xxH	001 00 000	3	VAh, 10 ⁰	0	xxx VAh	00000315H	789	789 VAh
8BxxH	100 01 011	6	kVAh, 10 ³	3	xxx.xxx kVAh	0006F855H	456789	456.789 kVAh
88xxH	100 01 000	6	kVAh, 10 ³	0	xxxxxx kVAh	0001E240H	123456	123456 kVAh
93xxH	100 10 011	6	MVAh, 10 ⁸	3	xxx.xxx MVAh	0001E240H	123456	123.456 MVAh

72xxH	011 10 010	5	MVAh, 10 ⁸	2	xxx.xx MVAh	00003039H	12345	123.45 MVAh
C2xxH	110 00 010	8	VAh, 10 ⁰	2	xxxxxxxx VAh	02B90135H	45678901	456,789.01 VAh

6.40: Reserved for Future Use (51862-52245)

6.41: Accumulators/Aggregators Average Full Scale (52249-52296)

- 4 registers, 8 bytes integer number
- Range: 999999999999999/0

6.42: Update Settings Block (52977-53248)

This block consists of the following registers:

- User Memo Field (256 bytes)- 128 registers, 256 bytes. User can write any notes up to 255 characters in this memo field.
- Name of User Who Last Updated the Profile (256 bytes) - These registers are used internally with the software. No interactions are required by the user.
- Device Profile Version (Year, Month/Day, Build) - These registers have the updated date for Device Profile. These registers are used internally with the software. No interactions are required by the user.
- Program Software ID - These registers have software ID. These registers are used internally with the software. No interactions are required by the user.
- Electro Industries Device Type (Base Unit, Option 1/Option 2, Option 3/Option 4) - These registers have information on what type of EIG meters that the software is communicating to. These registers are used internally with the software. No interactions are required by the user.
- Update Programming Software Version Number (Major, Minor, Revision) - These registers have software version number. These registers are used internally with the software. No interactions are required by the user.
- Update Time - This register contains the time the profile was updated. No interactions are required by the user.

6.43: Reserved for Future Use (53249-53348)**6.44: Reserved for Future Use (55296-57344)****6.45: Waveform and PQ Settings**

- RMS Set Points:
 - The Set Points control at what RMS voltage or current above or below the Full Scale value a waveform capture or PQ event occurs. The values are given in percentage of Full Scale, where each count is equal to 0.01%. For example:

Voltage P-N Full Scale	120 V
Set Point Value	11070
Set Point Percentage	110.70%
RMS Set Point	132.84 V

- Each Set Point value is a 2 byte signed integer. The Below Set Point is used to configure sag detection, and the Above Set Point is used to configure swell detection. Below is the table of Set Points:

Set Point	Modbus Address
Volts AN Below	0xB198
Volts BN Below	0xB199
Volts CN Below	0xB19A
Volts AB Below	0xB19B
Volts BC Below	0xB19C
Volts CA Below	0xB19D
Volts XN Below	0xB19E
Volts AN Above	0xB1A4
Volts BN Above	0xB1A5
Volts CN Above	0xB1A6
Volts AB Above	0xB1A7
Volts BC Above	0xB1A8
Volts CA Above	0xB1A9
Volts XN Above	0xB1AA

Set Point	Modbus Address
IA Below	0xB1B0
IB Below	0xB1B1
IC Below	0xB1B2
IN Below	0xB1B3
IA Above	0xB1B4
IB Above	0xB1B5
IC Above	0xB1B6
IN Above	0xB1B7

NOTE: Registers 0x7928 - 0x7929 must be set to zero for the Set Points to work.

- RMS Waveform Sag and Swell Limit Enables:
 - Enables or disables waveform capture on the specified channel for sags and swells. A value of 1 enables capture for sags and swells; a value of 0 disables capture. Both sags and swells must be enabled together.
 - Voltage Enables (register 0xB1B8):

Bit #	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
					XE	CE	BE	AE	NE	XN	CA	BC	AB	CN	BN	AN

- Current Enables (register 0xB1BA):

Bit #	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
													N	C	B	A

- Waveform Capture Count (register 0x7570-0x7571):
 - Controls the number of records captured when a waveform event occurs. Since the maximum size of a single waveform record is 180 cycles (approximately 3 seconds at a nominal 60 Hz), to perform a larger capture you need to capture multiple records. The value is + 1, so a value of 0 results in 1 record, a value of 10 results in 11 records, and so on. The maximum number of captures is 65525.

- Waveform Capture Sample Rate (register 0x7574):
 - Controls the number of samples per nominal 60 Hz cycle stored in the waveform capture. Decreasing this can decrease the size of the record, allowing more captures. Additionally, the maximum number of Cycles per Capture is affected by the sample rate, as shown below:

Value	Samples per 1/ 60th of a second	Maximum Cycles per capture
0	16	180
1	32	180
2	64	180
3	128	180
4	256	120
5	512	60
6	1024	40

- Compression Factor (0x758C) must be set to match.
- Pre-Trigger Cycles (register 0x7575 - High Byte):
 - The number of cycles to be included in the waveform capture from prior to the triggering cycle. Must be between 1 and 179, and the sum of pre- and post-triggers must be \leq the Max Cycles controlled by Sample Rate.
- Post-Trigger Cycles (register 0x7575 - Low Byte):
 - The number of cycles to be included in the waveform capture after the triggering cycle. Must be between 1 and the Max Cycles - Pre-Trigger.
- Internal Input Trigger Enables (register 0x7576):
 - Enables or disables waveform and PQ capture on internal input triggers. A value of 1 enables triggers on that input, a value of 0 disables triggers on that input.

Waveform Trigger Enable								Power Quality Trigger Enable							
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8

- Transient Set Points (register 0x7578 - 0x757A):
 - The Transient Set Points control at what voltage magnitude a Transient capture will be triggered. Note that Transients are triggered by the sample value, not the cycle RMS. As such, the minimum allowed value for WYE hookup is 250%, and for DELTA hookup is 144.2%. The values are given in percentage of Full Scale, where each count is equal to 0.1%. For example:

Voltage P-N Full Scale	120v
Set Point Value	3100
Set Point Percentage	310.0%
Voltage Set Point	372v

- Each Set Point value is a 2 byte signed integer. Set Points are applied to both Positive and Negative Triggers. Below is the table of Set Points:

Set Point	Modbus Address
Volts A	0x7578
Volts B	0x7579
Volts C	0x757A

- Waveform Channel Selection Count (register 0x757C):
 - The number of channels to be included in a waveform capture. This doesn't have to be the same number of trigger channels.

- Waveform Channel Selection List (register 0x757D - 0x758B):
 - The list of channels to be included in a waveform capture. Up to 15 channels may be selected, though the first channel must always be Channel 80 (High Speed Inputs). The list of channels do not have to be the same as the trigger channels. Each channel is a 2 byte ID, shown below:

Channel Name	Channel ID
High Speed Inputs	80
Volts AN	0
Volts BN	1
Volts CN	2
Volts AB	3
Volts BC	4
Volts CA	5
Volts XN	6
Volts NE	36
IA	37
IB	38
IC	39
IN	40
Volts Residual	7
I Residual	8

- Waveform Compression Factor (register 0x758C):
 - The Waveform Compression Factor must be set to match the Waveform Sample Rate.

Compression Factor Value	Samples per 1/60th of a second
0	16
1	32
2	64
3	128
4	256
5	512
6	1024

- PQ Trigger Enables (register 0x758D - 0x758E):
 - Enables or disables PQ Event triggering on individual channels. A value of 1 enables triggering, a value of 0 disables triggering.
- Voltage PQ Enables (register 0x758D):

Bit #	15	14	13	12	7	6	5	4	3	2	1	0
					NE	XN	CA	BC	AB	CN	BN	AN

- Current PQ Enables (register 0x758D):

Bit #	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
													N	C	B	A

- Return Hysteresis Set Points (register 0x7800 - 0x781F):
 - The Return Hysteresis Set Point configures when a sag or swell event is considered to have returned to normal. For PQ Events, this triggers the return to normal event, signifying the end of a PQ Event.
 - Hysteresis values are given as a percentage adjustment to the Set Point, where each count is equal to 0.01% of Full Scale, offset towards nominal from the Set Point. This Hysteresis value will always be closer to the full scale value than the Set Point. Negative values are not allowed.
 - For example, with swells:

Swell Set Point	110.0%
Swell Hysteresis	2.0%
Return Point	108.0%

- For example, with sags:

Sag Set Point	90.0%
Sag Hysteresis	2.0%
Return Point	92.0%

- Each Set Point value is a 2 byte signed integer. A value of 0% disables Hysteresis.

Set Point	Modbus Address
Volts AN Below	0x7800
Volts BN Below	0x7801
Volts CN Below	0x7802
Volts AB Below	0x7803
Volts BC Below	0x7804
Volts CA Below	0x7805
Volts XN Below	0x7806
Volts AN Above	0x780C
Volts BN Above	0x780D
Volts CN Above	0x780E
Volts AB Above	0x780F
Volts BC Above	0x7810
Volts CA Above	0x7811
Volts XN Above	0x7812
IA Below	0x7818
IB Below	0x7819
IC Below	0x781A
IN Below	0x781B
IA Above	0x781C
IB Above	0x781D
IC Above	0x781E
IN Above	0x781F

- USR Enables (register 0x7928 - 0x7929):
 - Both registers must be set to zero for Waveform Set Points to operate.

7: Register Block Titles

This chapter expands upon information listed in the Nexus® 1450 meter's Modbus Register Map (Chapter 2). "Register Block Titles" refers to a Register or Group of Registers in the Register map that serve a particular purpose or function.

7.1: Device Identification Block (00001-00080)

Description: Registers included in this block: Device Name, Firmware Variation Strings 0-7, Comm Firmware Boot version number, Comm Firmware Runtime version number.

Note that the DSP Firmware information is located as follows:

- Run-Time Version Number is located in Modbus Holding registers FD03H-FD04H.
- ID is located in Modbus Holding registers FD05H-FD06H.
- Type is located in Modbus Holding register FD02H.
- State is located in Modbus Holding register FD40H. DSP is in Healthy state if the value is 0.
- Variation String is located in Modbus Holding registers starting at EF80H, for 64 registers. It is a string type data with ASCII characters, 128 characters long. It contains factory set firmware information for identification and informational purposes.

All of the Device Identification and DSP Firmware data is in ASCII format. See Section 3.2: Type F1 - Null Terminated ASCII String on page 3-1 for information.

7.2: Real Time Block (00081-00089)

- Description: Registers included in this block: On Time, Current Time, Current Day of the Week (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2 and Section 3.4: Type F3 - Time Stamp on page 3-2).
- On Time (00081-00084):
 - These Registers keep the Time of the meter when it is turned on. The format of the Registers follows the table below. Byte 0 indicates the high byte of the Register 00081 and the byte 7 indicates the low byte of Register 00084. These Registers are Read Only.

Byte	Range	Description
0	0-255	Century

Byte	Range	Description
1	0-99	Year
2	1-12	Month
3	1-31	Day
4	0-23	Hour
5	0-59	Minute
6	0-59	Second
7	0-99	Centisecond

- Current Time (00085-00088):
 - These Registers keep the Current Time of the meter. These values are kept by an internal battery even when the meter is off. The format of the Registers follows the table on the previous page.
- Current Day of the Week (00089):
 - This Register keeps the Current Day of the Week. The format follows the table below.

Value	Day of Week
0001H	Sunday
0002H	Monday
0003H	Tuesday
0004H	Wednesday
0005H	Thursday
0006H	Friday
0007H	Saturday

- Example of resetting the time on a meter:
 - To set time as Wednesday, May 20, 2015, 3:45:00:00 P.M.: Century is 20 (14H); Year is 15 (0FH); Month is 05 (05H); Day is 20 (14H); Hour is 15 (0FH); Minute is 45 (2DH); Second is 00 (00H); Centisecond is 00 (00H); Day of the Week is 0004H.
 - The following data is sent to the Nexus® meter address 1. Registers 00085 through 00089 are written sequentially in one request. Register

00089, Current Day of the Week, must be included in the request. (Refer to Chapter 1 for Function Code 1.)

0110005400050A140F05140F2D00000004B44A

01 - Meter Address

10 - Function Code

0054 - Starting Address

0005 - Number of Registers

0A - Number of Bytes

140F05140F2D00000004 - Actual data for Time and Date

B44A - Two-byte CRC Checksum

7.3: 1 Cycle Block (00090-00118)

- Description: 1 Cycle Registers included in this block: Block Time Stamp, Phase A-N, B-N, C-N, Aux Voltage, Phase A, B, C Current, Measured Neutral Current, Calculated Neutral Current, Phase A-B, B-C, C-A Voltage, High Speed Input Delta and Current State (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.5: Type F4 - Day of Week on page 3-3, Section 3.6: Type F6 - High Speed Inputs, Delta and Current State on page 3-3).
- Type F68 Secondary 1 Cycle RMS Voltage and Current
- Length: 2 Register (4 bytes)
- Range: 4,294,967,295 V,A / 0 V,A
- Unit: 1/65536 V, A
- These registers together are a four-byte unsigned integer where the first register contains the LSB word.
- Example:
 Address: 0x005D – 0x005E
 Value: 0xE6D7 – 0x0077
 4-byte unsigned integer (Hex): 0x0077E6D7
 4-byte integer (decimal): 7,857,879
 1/65536 V secondary: 119.902 V

7.4: High Speed Block (00119-00175)

- Description: High Speed Registers are updated with a user programmable rate of between 2 cycles and 20 cycles; included in this block are: High Speed Block Time Stamp, High Speed Phase A-N, B-N, C-N, High Speed Aux Voltage, High Speed Phase A, B, C Current, High Speed Measured Neutral Current, High Speed Phase A-B, B-C, C-A Voltage, High Speed Phase A, B, C VA, Three Phase VA, High Speed Phase A, B, C VAR, Three Phase VAR, High Speed Phase A, B, C Watts, Three Phase Watts, High Speed Frequency, High Speed Phase A, B, C Power Factor, Three Phase Power Factor, High Speed Phase A-N Voltage to Aux Voltage Phase Angle (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.8: Type F8 - Power Factor on page 3-5, Section 3.9: Type F9 - Angle on page 3-6).

7.5: One Second Block (00176-00235)

- Description: One Second Registers included in this block: Block Time Stamp, Phase A-N, B-N, C-N, Aux Voltage, Phase A, B, C Current, Measured Neutral Current, Calculated Neutral Current, Phase A-B, B-C, C-A Voltage, Phase A, B, C VA, VA, Phase A, B, C VAR, Three Phase VAR, Phase A, B, C Watts, Three Phase Watts, Frequency, Phase A, B, C Power Factor, Three Phase Power Factor, Voltage Imbalance, Current Imbalance (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.8: Type F8 - Power Factor on page 3-5, Section 3.10: Type F10 - Percentage on page 3-7).

7.6: Thermal Average Block (00236-00295)

- Description: Thermal Average Registers included in this block: Block Time Stamp, Phase A-N, B-N, C-N, Aux Voltage, Phase A, B, C Current, Measured Neutral Current, Calculated Neutral Current, Phase A-B, B-C, C-A Voltage, Phase A, B, C VA, VA, Phase A, B, C VAR, VAR, Phase A, B, C Watts, Watts, Freq, Phase A, B, C PF, PF, Voltage, Current Imbalance (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.8: Type F8 - Power Factor on page 3-5, Section 3.10: Type F10 - Percentage on page 3-7).

7.7: Maximum Block (00296-00396)

- Description: Maximum (Thermal Average) Registers included in this block: Block Time Stamp, Phase A-N, B-N, C-N, Aux Voltage, Phase A, B, C Current, Measured Neutral Current, Calculated Neutral Current, Phase A-B, B-C, C-A Voltage, Phase A, B, C VA, VA, Phase A, B, C Positive VAR, Positive VAR, Phase A, B, C Negative VAR, Negative VAR, Phase A, B, C Positive Watts, Positive Watts, Phase A, B, C Negative Watts, Negative Watts, Freq, Phase A, B, C PF Quadrants 1, 2, 3, 4, PF Quadrants 1, 2, 3, 4, Voltage Imbalance, Current Imbalance, THD Phase A-N /A-B, B-N /B-C, C-N/C-A Voltage, THD Phase A, B, C Current, K-Factor Phase A, B, C Current, Coincident Thermal Average VAR for Max Pos Watt, Max Neg Watt (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.8: Type F8 - Power Factor on page 3-5, Section 3.10: Type F10 - Percentage on page 3-7).

7.8: Minimum Block (00397-00497)

- Description: Minimum (Thermal Average) Registers included in this block: All of the Registers for Maximum Block but for Minimum Block (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.8: Type F8 - Power Factor on page 3-5, Section 3.10: Type F10 - Percentage on page 3-7).

7.9: Maximum Time Stamp Block (00498-00737)

- Description: Maximum (Thermal Average) Time Stamp Registers included in this block: Phase A-N, B-N, C-N, Aux Voltage, Phase A, B, C Current, Measured Neutral Current, Calculated Neutral Current, Phase A-B, B-C, C-A Voltage, Phase A, B, C VA, VA, Phase A, B, C Positive VAR, Positive VAR, Phase A, B, C Negative VAR, Negative VAR, Phase A, B, C Positive Watts, Positive Watts, Phase A, B, C Negative Watts, Negative Watts, Freq, Phase A, B, C PF Quadrants 1, 2, 3, 4, PF Quadrants 1, 2, 3, 4, Voltage Imbalance, Current Imbalance, THD Phase A-N/A-B, B-N/B-C, C-N/C-A Voltage, THD Phase A, B, C Current, K-Factor Phase A, B, C Current (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2).

7.10: Minimum Time Stamp Block (00738-00977)

- Description: Minimum (Thermal Average) Time Stamp Registers included in this block: All of the Registers for Maximum Time Stamp Block but for Minimum Block (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2).

7.11: Energy Block (Secondary) (00978-01021)

- Description: Energy Registers included in this block: Time Stamp, VAhour, Positive, Negative VARhour, Positive, Negative Watthour (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.11: Type F11 - Energy Counter (Packed BCD / Secondary) on page 3-8, Section 3.12: Type F12 - Energy Counter (Binary / Secondary) on page 3-9).

7.12: Harmonic Magnitude Block (01022-01789)

- Description: Harmonic Magnitude Registers included in this block: Phase A-N/A-B, B-N/B-C, C-N/C-A Voltage for 0th through 127th Harmonic Magnitude, Phase A, B, C Current for 0th through 127th Harmonic Magnitude (see Section 3.10: Type F10 - Percentage on page 3-7).

7.13: Harmonic Phase Block (01790-02557)

- Description: Harmonic Phase Registers included in this block: Phase A-N/A-B, B-N/B-C, C-N/C-A Voltage for 0th through 127th Harmonic Phase, Phase A, B, C Current for 0th through 127th Harmonic Phase (see Section 3.9: Type F9 - Angle on page 3-6).

7.14: THD/K-Factor Block (02558-02566)

- Description: THD/K-Factor Registers included in this block: Phase A-N/A-B, B-N/B-C, C-N/C-A Voltage THD, Phase A, B, C Current THD, Phase A, B, C Current K-Factor (see Section 3.10: Type F10 - Percentage on page 3-7).

7.15: Harmonic Time Stamp Block (02567-02590)

- Description: Harmonic Time Stamp Registers included in this block: Phase A-N/A-B, B-N/B-C, C-N/C-A Voltage, Phase A, B, C Current (see Section 3.4: Type F3 - Time Stamp on page 3-2).

7.16: Phase Angle Block (02591-02604)

- Description: Phase Angle Registers included in this block: Time Stamp, Phase A-N, B-N, C-N Voltage, Phase A, B, C Current, Phase A-B, B-C, C-A Voltage, Volt Phase Seq. (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.9: Type F9 - Angle on page 3-6, Section 3.13: Type F13 - Phase Sequence on page 3-9).

7.17: Block Window Average Block (02605-02683)

- Description: Block Window Average Registers included in this block: Time Stamp, Status, VA, VAR, Watt, Maximum VA, Positive VAR, Negative VAR, Positive Watt, Negative Watt, Minimum VA, Positive VAR, Negative VAR, Positive Watt, Negative Watt, Coincident VAR for Max Positive Watt, Neg Watt, Coincident VAR for Min Positive Watt, Neg Watt, VA Time Stamp, Time Stamp for Pos VAR, Neg VAR, Pos Watt, Neg Watt, Minimum VA Time Stamp, Time Stamp for Minimum Pos VAR, Neg VAR, Pos Watt, Neg Watt (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.14: Type F14 - Block/Rolling Window Average Status on page 3-9).

7.18: Rolling Window/Predictive Rolling Window Block (02684-02768)

- Description: Rolling Window/Predictive Rolling Average Registers included in this block: Time Stamp, Status, Predictive VA, VAR, Watt, VA, VAR, Watt, Maximum VA, Positive VAR, Negative VAR, Positive Watt, Negative Watt, Min VA, Positive VAR, Negative VAR, Positive Watt, Negative Watt, Coincident VAR for Max Positive Watt, Neg Watt, Coincident VAR for Min Positive Watt, Neg Watt, VA Time Stamp, Time Stamp for Pos VAR, Neg VAR, Pos Watt, Neg Watt, Min VA Time Stamp, Time Stamp for Min Pos VAR, Neg VAR, Pos Watt, Neg Watt (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4, Section 3.14: Type F14 - Block/Rolling Window Average Status on page 3-9).

7.19: Limit Block (02769-02773)

- Description: Limit Registers included in this block: Limit States, Value 1 Comparisons, 1-16, 17-32, Limits States, Value 2 Comparisons, 1-16, 17-32, Low Speed Inputs (see Section 3.15: Type F15 - Limit States on page 3-11, Section 3.16: Type F16 - Low Speed (Internal) Input States on page 3-12).

7.20: Reserved for Future Use (02774-02841)

7.21: Internal Input Pulse Accumulation Block (05745-05796)

- Description: Internal Input Pulse Accumulation Registers included in this block: Time Stamp, Scaled Pulse Accumulations Internal Inputs 1-8, Scaled Pulse Accumulations 1-4 (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.40: Type F57 - Accumulation in the Interval on page 3-29).

7.22: Pulse Accumulation Block Window Average / Maximum Block (05797-05945)

- Description: Pulse Accumulation Block Window Average / Maximum Registers included in this block: Time Stamp, Status, Average Internal Inputs 1-8, Average Aggregation 1-4, Maximum Average Internal Inputs 1-8, Maximum Average Aggregation 1-4, Maximum Internal Input Time Stamp 1-8, Maximum Average Aggregation Time Stamp 1-4 (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.14: Type F14 - Block/Rolling Window Average Status on page 3-9, Section 3.40: Type F57 - Accumulation in the Interval on page 3-29).

7.23: Temperature (05946)

- Description: Nexus® meter's Internal Temperature Register is in this block (see Section 3.33: Type F47 - High Byte of Modbus Register (Unsigned) on page 3-27).

7.24: Analog Input Block (05947-05978)

- Description: This block contains registers for the optional Analog Inputs.

7.25: Limit Combination Block (05979-05980)

- Description: Limit Combination Registers included in this block: Limit States, Combinations 1-16,17-32 (see Section Section 3.15: Type F15 - Limit States on page 3-11).

7.26: Relay Logic Block (05981-06014)

- Description: Relay Logic Registers included in this block: Time Stamp, States, Inputs 1-8, Relays 1-16, States, Gates A-G, Relays 1-16, Delay Timer, Relay 1/2 - 15/16, Relays 1-16 for Desired Relay States, Shadowed Relay States, Confirmed Relay States, Valid Flags for Confirmed Relay States, Locked Relays, Locked Relay States (see Section 3.20: Type F34 - Limit and Relay Logic States on page 3-16).

7.27: Reset Time Block (06015-06038)

- Description: Reset Time Registers included in this block: Time Stamp, Max Time Stamp, Min Time Stamp, Energy Time Stamp, Current Season / Month TOU Time Stamp (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2).

7.28: Reserved for Future Use (06040-06076)**7.29: KYZ Output Accumulation Block (06097-06110)**

- Description: KYZ Output Accumulation Registers included in this block: KYZ Output Accumulation Block Time Stamp, KYZ Output Accumulation Relay 1/Pulse 1 LED, KYZ Output Accumulation Relay 2/Pulse 2 LED, KYZ Output Accumulation Relay 3, KYZ Output Accumulation Relay 4 (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.18: Type F18 - Digital Input Option Board Input Accumulation / Cumulative Demand on page 3-14).

7.30: Input Option Board Data Status Block (06111-06112)

- Description: These registers contain statuses for the first and second optional Input boards.

7.31: Flicker Status Block (06114-06126)

- Description: Flicker Status Registers included in this block: Flicker Status Block Time Stamp, Flicker Start Time, Flicker End Time, Flicker Status (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.14: Type F14 - Block/Rolling Window Average Status on page 3-9).

7.32: Instantaneous Flicker Block (06127-06136)

- Description: Instantaneous Flicker Registers included in this block: Instantaneous Flicker Block Time, Instantaneous Flicker VAN, VBN, VCN (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4).

7.33: Short Term Flicker Block (06137-06186)

- Description: Short Term Flicker Registers included in this block: Short Term Flicker Block Time, Short Term Flicker VAN, VBN, VCN, Maximum Short Term Flicker VAN, VBN, VCN, Minimum Short Term Flicker VAN, VBN, VCN, Short Term Interval End Time Stamp, Max Short Term Flicker VAN, VBN, VCN Time Stamps, Min Short Term Flicker VAN, VBN, VCN Time Stamps (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4).

7.34: Long Term Flicker Block (06187-06236)

- Description: Long Term Flicker Registers included in this block: Long Term Flicker Block Time, Long Term Flicker VAN, VBN, VCN, Maximum Long Term Flicker VAN, VBN, VCN, Minimum Long Term Flicker VAN, VBN, VCN, Long Term Interval End Time Stamp, Maximum Long Term Flicker VAN, VBN, VCN Time Stamps, Minimum Long Term Flicker VAN, VBN, VCN Time Stamps (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.7: Type F7- Secondary Voltage, Current, VA, VAR, Watts, Hz or Flicker on page 3-4).

7.35: Additional Energy Block (06237-06392)

- Description: Additional Energy Registers included in this block: Additional Energy Block Time, Quadrants 1, 4, 2, 3 Watthour Secondary, Quadrant 1 VAhour, VARhour Secondary, Quadrant 4 VAhour, VARhour Secondary, Quadrant 2 VAhour, VARhour Secondary, Quadrant 3 VAhour, VARhour Secondary, Quadrants 1, 4, 2, 3 Watthour Primary, Total VAhour Primary (Quadrants 1+2+3+4), Positive VARhour (Quadrants 1+2) Primary, Negative VARhour (Quadrants 3+4) Primary, Negative VARhour Primary, Quadrant 1, 4, 2, 3 Watthour Secondary, Quadrant 1 VAhour, VARhour Secondary, Quadrant 4 VAhour, VARhour Secondary, Quadrant 2 VAhour, VARhour Secondary, Quadrant 3 VAhour, VARhour Secondary, Quadrants 1, 4, 2, 3 Watthour Primary, Total VAhour (Quadrants 1+2+3+4) Primary, Positive VARhour (Quadrants 1+2) Primary, Negative VARhour (Quadrants 3+4) Primary (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.11: Type F11 - Energy Counter (Packed BCD / Secondary) on page 3-8, Section 3.12: Type F12 - Energy Counter (Binary / Secondary) on page 3-9).

7.36: Energy and Pulses in the Interval Block (06393-006488)

- Description: Energy and Pulses in the Interval Registers included in this block: Energy and Pulses in the Interval Block Time Stamp, Total VAhour (Quadrants 1+2+3+4) in the Interval Secondary, Positive VARhour (Quadrants 1+2) in the Interval Secondary, Negative VARhour (Quadrants 3+4) in the Interval Secondary, Positive Watthour (Quadrants 1+4) in the Interval Secondary, Negative Watthour (Quadrants 2+3) in the Interval Secondary, Positive Watthour (Quadrants 1+4) in the Interval Secondary, Negative Watthour (Quadrants 2+3) in the Interval Secondary, Positive Watthour (Quadrants 1+4) in the Interval Primary, Quadrant 1 VAhour, VARhour in the Interval Primary, Quadrant 4 VAhour, VARhour in the Interval Primary, Negative Watthour (Quadrants 2+3) in the Interval Primary, Quadrant 2 VAhour, VARhour in the Interval Primary, Quadrant 3 VAhour, VARhour in the Interval Primary, I2t Phase A, B, C in the Interval Primary, V2t Phases A, B, C in the Interval Primary, Pulse Accumulation Internal Inputs 1-8 in the Interval Scaled, Pulse Accumulation 1-4 in the Interval Scaled, Quadrants 1, 4, 2, 3 Watthour in the Interval Secondary, Quadrant 1 VAhour, VARhour in the Interval Secondary, Quadrant 4 VAhour, VARhour in the Interval Secondary, Quadrant 2 VAhour, VARhour in the Interval Secondary, Quadrant 3 VAhour, VARhour in the Interval Secondary, Quadrants 1, 4, 2, 3 Watthour in the Interval Primary, Total VAhour (Quadrants 1+2+3+4) in the Interval Primary, Positive VARhour (Quadrants 1+2) in the Interval Primary, Negative VARhour (Quadrants 3+4) in the Interval Primary, KYZ Pulse Output in the Interval Relays 1-4, Pulse 1 and 2 LEDs (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.18: Type F18 - Digital Input Option Board Input Accumulation / Cumulative Demand on page 3-14, Section 3.37: Type F53 - Four-Byte (Unsigned) on page 3-27).

7.37: Flicker Countdown Block (06489-006490)

- Description: Flicker Countdown Registers included in this block: Short Term Flicker Countdown, Long Term Flicker Countdown (see Section 3.36: Type F52 - Four-Byte (Signed) on page 3-27).

7.38: Cumulative Demand Block (06491-006502)

- Description: Cumulative Demand Registers included in this block: Cumulative Demand Block Time Stamp, Positive Watt (Quadrants 1+4) Cumulative Demand, Negative Watt (Quadrants 2+3) Cumulative Demand, Positive Watt (Quadrants 1+4) Continuous Cumulative Demand, Negative Watt(Quadrants 2+3) Continuous Cumulative Demand (see Section 3.3: Type F2 - Fixed Length ASCII String on page 3-2, Section 3.18: Type F18 - Digital Input Option Board Input Accumulation / Cumulative Demand on page 3-14).

7.39: Uncompensated and Q Block (06665-06907)

- Description: Uncompensated register readings are the readings to which Transformer Loss Compensation is not applied. Q Hour readings are 60 degree-shifted hour readings from Watt hour readings. VAR hour readings are 90 degree-shifted hour readings from Watt hour readings.

7.40: Scaled Energy Block (06908-07829)

- Description: Energy readings in Nexus® meters have Watt-hour, VAR-hour and VA-hour as base units. In the real world, kilo, mega and giga-units are used more frequently. Therefore, Nexus® meters have scaled energy readings. This scale can be modified using Communicator EXT™ software.

Length	2 Registers (4 bytes)
Range	99 / 0 through 999,999,999 / 0 (variable, 2-9 digits)
Unit	10^7 through 10^6 units (variable)

- This register contains a 4-byte MSB signed integer. The range and resolution of a given reading is controlled by programmable Scaled Energy Settings, which govern both the range of the reading (from 2 to 9 digits) and the units of the reading (from 7 decimal places of Wh (10^{-7}) to no decimal places of MWh (10^6) (see Section 3.59: Type F83 - Phase Sequence on page 3-40 and Section 3.60: Type F90 - 16.7 usec Counter (Used for duration timestamp- ing.) on page 3-40).

7.41: Reserved for Future Use (07830-07859)**7.42: Negative Maximum Pulse Aggregation Average Block (07864-07895)**

- Description: Negative Maximum Average Aggregation 1-4 and Negative Maximum Average Aggregation Time Stamp 1-4 registers are included in this block. Maximum Average Aggregation 1-4 registers in Pulse Accumulation Block Window Average/ Maximum Block (05797-05945) will hold only positive values.

7.43: Reserved for Future Use (07896-07910)**7.44: New Demand Block (Either Block Window Average or Sliding Window Average (07928-08039))**

- Description: This block keeps Average Demand values including, watts, VAR, VA, I²T, V²T, Uncompensated Energy, internal inputs and aggregators, and power factor readings.

7.45: Scratchpad Block (08193 - 08320)

- Description: Scratchpad Registers 08193 - 08320 included in this block. The 128 registers in the Scratchpad Block are for temporary storage of information. At the user's discretion, data may be written to the registers and then read back.
 - Example: Using one port, write energy readings from other devices. Those energy readings can be read through another port.

7.46: Master Device Data Block (08449-08704)

- Description: These registers are used as a Scratch Pad between the Software and the Network Card or Modem Card. These registers are not for polling by the users.

7.47: EN 50160/IEC 61000-4-30 Power Quality Test (08705-11054)

- Description: These registers keep the EN 50160/IEC 61000-4-30 Power Quality Report data, including Symmetrical Components, Harmonics and total harmonic distortion (THD), short term and long term Flicker readings, total demand distortion (TDD), rapid voltage changes, supply voltage unbalance, Mains signaling values, dips and interruptions data, overvoltage, and supply voltage variation.

7.48: Frozen Energy Blocks (11265-11650)

- Description: These registers keep the Frozen blocks readings, including the time stamp, Whr, VAhr, VARhr, I²T, V²T, Qhr, internal input pulse accumulations, KYZ output accumulation readings, scaled energy readings, and scaled internal input pulse accumulation readings.

7.49: Previous Block Window Average Block (11651-11742)

- Description: These registers keep the readings for the previous Block Demand averaging, including VA, VAR, watts, and Q.

7.50: Previous Rolling Window Average Block (11743-11834)

- Description: These registers contain the readings for the previous Rolling Demand averaging, including VA, VAR, watts, and Q.

7.51: Previous Scaled Energy Block (11835-11894)

- Description: These registers contain the previous readings for the scaled Energy channels, including Whr, VAhr, VARhr, I²T, V²T, Qhr.

7.52: One Second Three Phase Mean RMS Block (11895-11900)

- Description: these registers keep the One Second Three Phase Mean RMS readings, including Vpn, amp, and Vpp.

7.53: Block Window Max/Min and 10 Minute Mean THD Block (11901-12138)

- Description: these registers keep the One Second Three Phase Mean RMS readings, including Vpn, amp, and Vpp, THD, and Max and Min interval readings.

7.54: Coincident Power Factor (12141-12156)

- Description: these registers keep the coincident power factor readings.

7.55: Customized Modbus Block (12289-14336)

- Description: All the readings in the Customizable Modbus Map Settings Block (50273) can be read in this block. The format of the readings follows each individually assigned reading.

7.56: Nexus Master Polling Data Block (14337-14604)

- Description: The database polling information is kept in these registers.

7.57: Additional and Vpe Block (14849-14942)

- Description: This block contains registers that keep the high-speed readings, 1 second readings, Thermal average readings, and Vaux frequency.

7.58: Block Window, Max/Min Block, P-E

- Description: These registers keep Max and Min interval data for Phase to Earth readings.

7.59: Enhanced Factory Settings Block (16385-24576)

- Description: These registers keep information on the meter's hardware options, serial numbers, and OEM information. Some of these registers are reserved for future use.

7.60: Enhanced Programmable Settings Block (24577-32768)

- Description: These registers keep information on the meter's Master RTU functionality, Digital Input option board rollover settings, Interval Log settings, Waveform capture rules, Waveform transient readings, Waveform transient settings, Log configuration settings, Network card settings, Email client settings, FTP client settings, GE EGD protocol settings, DNP LAN/WAN settings, SNTP settings, IEC 61000-4-30 settings (Hysteresis settings, Interruptions settings, nominal voltage, harmonic magnitude thresholds, mains signaling thresholds, overvoltage thresholds, supply voltage variation settings, and max/min interval settings). Some of these registers are reserved for future use.

7.61: TOU Status Section Block (34817-34826)

- Description: These registers keep TOU profile status information, including number of updates and current status of TOU function.

7.62: TOU Profile Section Block (34833-36608)

- Description: These registers keep TOU profile settings, including TOU profile version, length, date/time modified, TOU Demand type and interval, and details of the profile settings.

7.63: Reserved for Future Use (36737-36800)

7.64: Historical Log 1 Snapshot Header (36865-36883)

- Description: Historical Log 1 Snapshot Registers included in this block:
 - Memory Size: 4-byte unsigned integers representing the amount of memory, in bytes, allocated to the log.
 - Record Size: 2-byte integers representing the size, in bytes, of a record in the log.
 - First Index: 2-byte unsigned integers representing the index of the first (oldest) record in the log.
 - Last Index: 2-byte unsigned integers representing the index of the last (newest) record in the log. The value 0x0FFFF indicates that the log is empty.
 - First Time Stamp: these registers (8 bytes) hold the time stamp from the first (oldest) record in the log.

Time Stamp Bytes		
Byte	Range	Description
0	0-255	Century
1	0-99	Year
2	1-12	Month
3	1-31	Day
4	0-23	Hour
5	0-59	Minute
6	0-59	Second
7	0-99	Centisecond

- Last Time Stamp: these registers hold the Time Stamp from the last (newest) record in the log. The byte order and description are the same as for the First Time Stamp.
- Valid Bitmap: these registers hold the bit flags indicating whether the meter recognizes the lines in the Historical Log Settings Block (the block at Register 45205). The first bit represents the validity of the Data Pointer in the Historical Log Settings.
 - A value of 1 means the Data Pointer is acceptable and can be stored. A value of 0 means that the Data Pointer is invalid or unrecognized and not able to be stored.
- Max Records: 2-byte unsigned integer representing the total number of records the log is capable of holding. In order to maintain a one-for-one relationship in parallel logs, the maximum number of records that a log can store is defined by the log that holds the fewest records. Logs capable of holding more records are restricted.
- Reset Status

7.65: Historical Log 2 Snapshot Header (36929-36947)

- Description: Historical Log 2 Snapshot Registers included in this block: The same as for Log 1.

7.66: System Event Log Header (37505-37526)

- Memory Size: 4-byte unsigned integers representing the amount of memory, in bytes, allocated to the log.
- Record Size: 2-byte unsigned integers representing the size, in bytes, of a record in the log.
- First Index: 2-byte unsigned integers representing the Index of the First (Oldest) record in the log.
- Last Index: 2-byte unsigned integers representing the Index of the Last (Newest) record in the log.
- The value 0x0FFFF indicates that the log is empty.

- First Time Stamp: These registers (8 bytes) hold the Time Stamp from the First (Oldest) record in the log.

Time Stamp Bytes		
Byte	Range	Description
0	0-255	Century
1	0-99	Year
2	1-12	Month
3	1-31	Day
4	0-23	Hour
5	0-59	Minute
6	0-59	Second
7	0-99	Centisecond

- Last Time Stamp: These registers hold the Time Stamp from the Last (Newest) Record in the log. The byte order and description are the same as for the First Time Stamp.
- Valid Bitmap: Undefined.
- Max Records: A 2-byte unsigned integer represents the total number of records the log is capable of holding. In order to maintain a one-for-one relationship in parallel logs, the maximum number of records that a log can hold is defined by the log that holds the fewest records. Logs capable of holding more records are restricted.
- Records in Log
- Reset Status

7.67: External Device Information Block Header (37761-37778)

- Description: External Device Information Registers included in this block:
 - Memory Size: 4-byte unsigned integer representing the amount of memory, in bytes, allocated to External Device Information Blocks. This memory is allocated from RAM, not NVRAM.
 - Record Size: unsigned integer representing the size, in bytes, of an External Device Info Block.
 - First Index: An unsigned integer representing the Index of the First External Device Info Block.
 - Last Index: An unsigned integer representing the Index of the Last External Device Info Block.
 - First Time Stamp: Since External Device Info Blocks are not recorded sequentially, these registers have no meaning.
 - Last Time Stamp: Since External Device Info Blocks are not recorded sequentially, these registers have no meaning.
 - Valid Bitmap: These registers hold the bit flags to indicate the validity of individual External Device Info Blocks. The first bit (high order bit in Register 37774) represents the validity of the First External Device Info Block. The last bit (lowest order bit in Register 37777) represents the validity of the Last External Device Info Block.
 - A value of 1 means that the External Device was found and the meter successfully received all of the Info Block for the External Device. A value of 0 means that the External Device was not found, or errors have occurred while trying to retrieve the Info Block or that no device is programmed for this slot.
 - Max Records: This register holds an unsigned integer representing the total number of records the log can hold.

7.68: External Device Programming Block Header (37825-37842)

- Description: External Device Programming Registers included in this block:
 - Memory Size: These registers are a 4-byte unsigned integer representing the amount of memory, in bytes, allocated to External Device Programming Blocks. This memory is allocated from RAM, not NVRAM.
 - Record Size: This register is an unsigned integer representing the size, in bytes, of an External Device Programming Block.
 - First Index: An unsigned integer representing the Index of the First External Device Programming Block.
 - Last Index: An unsigned integer representing the Index of the Last External Device Programming Block.
 - First Time Stamp: Since External Device Programming Blocks are not recorded sequentially, these registers have no meaning.
 - Last Time Stamp: Since External Device Programming Blocks are not recorded sequentially, these registers have no meaning.
 - Valid Bitmap: These registers hold the bit flags to indicate the validity of individual External Device Programming Blocks. The first bit (high order bit in Register 37838) represents the validity of the First External Device Programming Block. The last bit (lowest order bit in Register 37841) represents the validity of the Last External Device Programming Block.
 - A value of 1 means that the External Device was found and the meter successfully received all of the Programming Block for the External Device. A value of 0 means that the External Device was not found, or errors have occurred while trying to retrieve the Programming Block or that no device is programmed for this slot.
 - Max Records: This Register holds an unsigned integer representing the total number of records the log is capable of holding.

7.69: Device History Block Header (37889-37906)

- Description: This Register holds an unsigned integer representing the total number of records the log is capable of holding.

7.70: Direct Memory Access Header (37953-37970)

- Description: Direct Memory Access currently not used.

7.71: Window Index Block (38145-38162)

- Description: Window Index Registers included in this block:
 - Historical Log 1 (38145):
 - When read, this register returns the Window Index for Historical Log 1 to access Historical Log 1 on this port. When written, this register sets the Index used by the Historical Log 1 Window to access Historical Log 1 on this port. Each port accesses a separate, independent index through this register, allowing all four ports to access different areas of Historical Log 1 at the same time.
 - When a value other than 0x0FFFF is written to this register, the index is updated.
 - If the Window Mode for this log indicates a Paused Mode (0x00000 or 0x00001 in Register 38209), Historical Log 1 is paused, preventing the addition of new records while the log is being accessed. A 30-second timer is initiated on these writes. Should the timer run out (a new index is not written within 30 seconds), Historical Log 1 will be allowed to continue logging.
 - When a value of 0x0FFFF is written to this register, it signifies that the port is finished accessing Historical Log 1, the 30-second timer is canceled and Historical Log 1 will be allowed to continue logging.
 - Should multiple ports access the same log simultaneously, the log will be paused while either 30-second timer is running. The log will be allowed to continue logging only when both ports time-out or write 0x0FFFF to their Index Register.

- Historical Log 2 (38146): When read, this register returns the Window Index for Historical Log 2 to access Historical Log 2 on this port. Functionality follows the Historical Log 1 Window Index (38145).
- System Log (38155): when read, this register returns the window index for the System log, to access the System log on this port. Functionality follows the Historical log1 window index (38145).
- Device History Block (38160) - Currently not used.
- Direct Memory Access (38161) - Currently not used.

7.72: Window Mode Block (38209-38226)

- Description: Window Mode Registers included in this block:
 - Historical Log 1 (38209): When read, this register returns the Mode used by the Historical Log 1 Window to access Historical Log 1 on this port. When written, this register sets the Mode used by the Historical Log 1 Window to access Historical Log 1 on this port. Each port accesses a separate, independent Mode through this Register, allowing all four ports to access Historical Log 1 in different modes.
 - Currently, the Mode Register defines the following Modes: Paused Download Mode (0x00000), Paused Time Stamp Mode (0x00001), Running Download Mode (0x00002) and Running Time Stamp Mode (0x00003).
 - In Download Modes (0x00000 and 0x00002), the Historical Log 1 Window accesses consecutive 128-byte blocks of the Historical Log 1. When the Index = 0x00000, the first 128 bytes of the log are readable in the window; when the Index = 0x00001, the second 128 bytes of the log are readable in the window, and so on. The designation “first 128 bytes of the log” is a physical description based on the absolute addresses of the memory allocated to the log. The first (oldest) record in the log may not be located at the beginning of the log.
 - In Time Stamp Modes (0x00001 and 0x00003), the Historical Log 1 Window accesses the Time Stamps of the records in the Historical Log 1 in blocks of 16 Time Stamps at a time. When the Index = 0x00000, the Time Stamps of the first 16 records (records 0-15) in the log are readable in the window; when the Index = 0x00001, the Time Stamps of the second 16 records (records 16-31) in the log are readable in the window, and so on. The designation “first 16 records of the log” is a physical description based on the absolute addresses of the memory allocated to the log. The first (oldest) record in the log may not be located at the beginning of the log.
 - In Paused Modes (0x00000 and 0x00001), the log being accessed is paused and new records are not added to the log while it is paused.

- In Running Modes (0x00002 and 0x00003), the log being accessed is not paused and new records may be added to the log. When downloading in these modes, it is possible the records may be overwritten before or during the downloading of records.
- Historical Log 2 (38210): When read, this register returns the Mode in use by the Historical Log 2 Window to access Historical Log 2 on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Limit Trigger Log (38211): When read, this register returns the Mode in use by the Limit Trigger Log Window to access Limit Trigger Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Limit Snapshot Log (38212): When read, this register returns the Mode in use by the Limit Snapshot Log Window to access Limit Snapshot Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Digital Input Log (38213): When read, this register returns the Mode in use by the Digital Input Log Window to access Digital Input Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Digital Input Snapshot Log (38214): When read, this register returns the Mode in use by the Digital Input Snapshot Log Window to access Digital Input Snapshot Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Digital Output Log (38215): When read, this register returns the Mode in use by the Digital Output Log Window to access Digital Output Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Digital Output Snapshot Log (38216): When read, this register returns the Mode used by the Digital Output Snapshot Log Window to access Digital Output Snapshot Log on this port. Functionality follows Historical Log 1 Window Mode (38209).
- Flicker Log (38217): When read, this register returns the Mode in use by the Flicker Log Window to access Flicker Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).

- Waveform Trigger Log (38218): When read, this register returns the Mode in use by the Waveform Trigger Log Window to access Waveform Trigger Log on this port. Functionality follows Historical Log 1 Window Mode (38209).
- Register 38219 is currently not used.
- Waveform Samples Log (38220): When read, this register returns the Mode in use by the Waveform Samples Log Window to access Waveform Samples Log on this port. Functionality follows Historical Log 1 Window Mode (38209).
- PQ Log (38221): When read, this register returns the Mode in use by the PQ Log Window to access PQ Log on this port. Functionality follows the Historical Log 1 Window Mode (38209).
- Register 38209 is currently not used.
- External Device Info Block (38223) - Currently not used.
- External Device Programming Block (38224) - Currently not used.
- Device History Block (38225) - Currently not used.
- Direct Memory Access (38226) - Currently not used.

7.73: Window Block (38273-39424)

- Description: Window Registers included in this block:
 - Historical Log 1 (38273-38336): These registers are a 128-byte window into the Historical Log 1. The particular 128-bytes that are accessed are dependent on the Historical Log 1 window index.
 - Historical Log 2 (38337-38400): These registers are a 128-byte window into the Historical Log 2. The particular 128-bytes that are accessed are dependent on the Historical Log 2 window index.
 - Limit Trigger Log (38401-38464): These registers are a 128-byte window into the Limit Trigger Log. The particular 128-bytes that are accessed are dependent on the Limit Trigger Log window index.

- Limit Snapshot Log (38465-38528): These registers are a 128-byte window into the Limit Snapshot Log. The particular 128-bytes that are accessed are dependent on the Limit Snapshot Log window index.
- Digital Input Log (38529-38592): These registers are a 128-byte window into the Digital Input Log. The particular 128-bytes that are accessed are dependent on the Digital Input Log window index.
- Digital Input Snapshot Log (38593-38656): These registers are a 128-byte window into the Digital Input Snapshot Log. The particular 128-bytes that are accessed are dependent on the Digital Input Snapshot Log window index.
- Digital Output Log (38657-38720): These registers are a 128-byte window into the Digital Output Log. The particular 128-bytes that are accessed are dependent on the Digital Output Log window index.
- Digital Output Snapshot Log (38721-38784): These registers are a 128-byte window into the Digital Output Snapshot Log. The particular 128-bytes that are accessed are dependent on the Digital Output Snapshot Log window index.
- Flicker Log (38785-38848): These registers are a 128-byte window into the Flicker Log. The particular 128-bytes that are accessed are dependent on the Flicker Log window index.
- Waveform Trigger Log (38849-38912): These registers are a 128-byte window into the Waveform Trigger Log. The particular 128-bytes that are accessed are dependent on the Waveform Trigger Log window index.
- System Event Log Window (38913-38976): These registers are a 128-byte window into the System Events Log. The particular 128-bytes that are accessed are dependent on the System Events Log window index.
- Waveform Samples Log (38977-39040): These registers are a 128-byte window into the Waveform Samples Log. The particular 128-bytes that are accessed are dependent on the Waveform Samples Log window index.
- PQ Log (39041-39104): These registers are a 128-byte window into the PQ Log. The particular 128-bytes that are accessed are dependent on the PQ Log window index.

- External Device Info Block Window (39169-39232): These registers are a 128-byte window into the External Device Info Blocks. The particular 128-bytes that are accessed are dependent on the External Device Info Blocks window index. (See Chapter 5.)
- External Device Info Block Window (39233-39296): These registers are a 128-byte window into the External Device Programming Blocks. The particular 128-bytes that are accessed are dependent on the External Device Programming Blocks window index. (See Chapter 5.)
- Device History Block (39297-39360) - Currently not used.
- Direct Memory Access (39361-39424) - Currently not used.

7.74: Auto Increment Window Block (39423-39488)

- Auto Increment Configuration is 1 Register, 2 bytes. When read, this register returns the configuration in use by the Auto Increment Log Window, to access logs on this port. When written, this register sets the configuration used by the Auto Increment Log Window, to access logs on this port. Each port accesses a separate, independent configuration through this register allowing all four ports to access logs with different configurations.
- The least significant byte indicates which log is being accessed. The appropriate values are:
 - 0x000 Historical Log 1
 - 0x001 Historical Log 2
 - 0x002 Sequence of Events State Log
 - 0x003 Sequence of Events Snapshot Log
 - 0x004 Digital Input State Log
 - 0x005 Digital Input Snapshot Log
 - 0x006 Digital Output State Log
 - 0x007 Digital Output Snapshot Log

0x008 Flicker Log

0x009 Waveform Trigger Log

0x00A System Event Log

0x00B Waveform Sample Log

0x00C PQ Log

0x00D-0x0FF Undefined

- The most significant byte defines the following modes: Paused Download Mode (0x000) and Running Download Mode (0x001).
 - In Paused Download mode (0x000), the log being accessed is paused - new records are not added to the log while it is paused.
 - In Running Download mode (0x001), the log being accessed is not paused - new records may be added to the log. When downloading in this mode, it is possible that records may be overwritten before, or even during, access to that record.
- Auto Increment Window Index is 1 register, 2 bytes. When read, this register returns the index used by the Auto Increment Log Window, to access logs on this port. When written, this register sets the index used by the Auto Increment Log Window, to access logs on this port. Each port accesses a separate, independent index through this register, allowing all four ports to access different areas of logs at the same time.
- When read, the index is incremented before being returned in the Modbus response. If the Auto Increment Mode is Paused Download mode (0x001xx in register 39423, 0x099FE), the appropriate log is paused, preventing the addition of new records while the log is being accessed. A 30-second timer is initiated on these reads. Should the timer run out (the index is not incremented/read in 30 seconds), the appropriate log will be allowed to continue logging.
- When a value of 0x0FFFF is written to this register, this signifies that the port is finished accessing the appropriate log, and the 30-second timer is canceled and the appropriate log will be allowed to continue logging.

- Should multiple ports access the same log simultaneously, the log will be paused while either 30-second timer is running; the log will be allowed to continue logging only when both ports time-out or write 0x0FFF to their index register.
- Auto Increment Log Window is 64 registers, 128 bytes. These registers are a 128-byte window into a log, as specified in the Auto Increment Configuration (register 39423, 0x099FE). Depending on the Auto Increment Window Index, a different 128-byte area of a log can be accessed. See Section 5.1.2: Log Download Using Auto-Increment Index Method on page 5-12, for the usage of these registers.

7.75: Alarm Block (40961-41105)

- Description: Window Registers included in this block:
 - Last Alarm (40961-40976): These Registers keep the latest Limit Trigger Log, which records information about the limits. The log records which limits are currently exceeded and which limits have just changed. The 16 Registers contain 32 bytes. The record format is the same as the Limit Trigger Log Format.
 - The first eight bytes are the Time Stamp. The format of the Time Stamp is:

Time Stamp Bytes			
Byte	Format	Range	Description
0	Binary	0-99	Century
1	Binary	0-99	Year
2	Binary	1-12	Month
3	Binary	1-31	Day
4	Binary	0-23	Hour
5	Binary	0-59	Minute
6	Binary	0-59	Second
7	Binary	0-99 +MSB	Centisecond

- An additional piece of information is contained in the centisecond byte. The most significant bit indicates whether Limit Trigger monitoring was continuous between the last record and this record. If the bit is 1, then this is the first record recorded after a power-down, reset or download

and all unfinished durations prior to this record are lost. If the bit is 0, then recording was continuous between the last record and this one.

- The next four bytes are a bitmap for the Current State of the Value 1 Comparisons of the Limits.
 - The first bit (the most significant bit of the first byte) is the Current State of the 1st Limit's Value 1 Comparison. The last bit (the least significant bit of the fourth byte) is the Current State of the 32nd Limit's Value 1 Comparison.
 - A bit value of 1 means that the Comparison is exceeded (less than or equal to Value 1 for a below limit; greater than Value 1 for an above limit), a bit value of 0 means the Comparison is not exceeded (greater than Value 1 for a below limit; less than or equal to Value 1 for an above limit).
- The next four bytes are the same bitmap as above, but for the Current State of the Value 2 Comparisons of the Limits.
- The next four bytes are a bitmap for the Delta of the Value 1 Comparisons of the Limits. The order of the bits is the same as above. A bit value of 1 means that the State of the Value 1 Comparison changed since the last alarm occurred; a bit value of 0 means that the State of the Value 1 Comparison did not change since the last alarm.
- The next four bytes are the same bitmap as above, but for the Delta of the Value 2 Comparisons of the Limits.
- The next four bytes are a bitmap for the Current State of the Combinations of the Limits.
 - The first bit (the most significant bit of the first byte) is the Current State of the 1st Limit's Combination of the Value 1 Comparison and the Value 2 Comparison. The last bit (the least significant bit of the fourth byte) is the Current State of the 32nd Limit's Combination of the Value 1 Comparison and the Value 2 Comparison.
 - A bit value of 1 means that the Combination is true; a bit value of 0 means that the Combination is false.

- The last four bytes are the same bitmap as above, but for the Delta of the Combination of the Limits.
- Last Alarm Snapshot (40977-41104): the registers store the latest Limit Snapshot Log. The record formats are also explained in Section 6: Meter Programmable Settings Block on page 6-1.
 - Record Format: A record contains 32, 64, 128 or 256 bytes, depending on how many channels have limits assigned to them. The first eight bytes in each Record are the Time Stamp. The format of the Time Stamp is shown on page 8-34.
 - The remaining bytes are the values monitored by Limits (45077-45204). If the first Data Pointer is requesting VBN, a 4-byte value, then the next 4 bytes in the Record is VBN. This continues, Data Pointer for Data Pointer, until all Data Pointers have been satisfied, or the number of bytes is equal to the Historical Log 1 Record Size.
- Limit Data Pointers (45077-45204): These registers indicate which values are being monitored by Limits. Each Data Pointer has the following 8-byte structure:

Size	Format	Description
2-byte	Unsigned Integer	Line Number
1-byte	Unsigned Char	Point Number
1-byte	Unsigned Char	Limit Mode
2-byte	Unsigned Integer	Comparison 1 Value
2-byte	Unsigned Integer	Comparison 2 Value

- A Line Number is an index into the Communication Table. For example: Line Number 11 is for the 12th Line in the Communication Table, 0.1 Second Phase-to-Neutral Voltages. Data Pointers with Line Numbers greater than the number of lines in the table are ignored.
- A Point Number is an index into a Line in the Communication Table. For example: Point Number 1 is for the second entry in a Line. Line Number 11, Point Number 1 is the 2nd in the 12th line, 0.1 Second VBN. Data Pointers with Point Numbers greater than the number of points for the line are ignored.

- Latched Exception Flag (41105): This register tells you how many Limit Triggers have occurred since the last time the registers were checked. This register is Read Only.
 - For example: Two Limit Exceptions occurred. Read the register from Port 1; you will notice 2 Limit Exceptions returned. Later, two more Limit Exceptions occurred. Read the register again. From Port 1, you will notice 2 Limit Exceptions returned. From Port 2, you will notice 4 Limit Exceptions returned. Limit Exceptions are incremented so that you have a history of Limit Exceptions in the Ports.

7.76: TOU Action Log Header (41217-41240)

- Description: TOU Action Log Header Registers included in this block: see registers 36865-36883.

7.77: TOU Month/Season Log Header (41281-41304)

- Description: TOU Month/Season Log Header Registers included in this block: see registers 36865-36883.

7.78: Port Control Block (41729-42496)

- Description: Port Control Registers included in this block (see Chapter 5):
 - Port Control Command (41729): When written, this register receives commands meant to control the ports. Valid commands are:

0x00100 = Lock Port 4 (I/O) for my use

0x00101 = Lock Port 3 for my use

0x00102 = Lock Port 2 for my use

0x00103 = Lock Port 1 (232/485) for my use

0x00104 = Lock the Diagnostic Port for my use (currently not use)

0x00200 = Unlock Port 4

0x00201 = Unlock Port 3

0x00202 = Unlock Port 2

0x00203 = Unlock Port 1

0x00204 = Unlock the Diagnostic Port (currently not used)

- You cannot lock your own port.
- You cannot lock a port that is already locked.
- A port can only be unlocked by the port that locked it originally.
- Lock States (41730-41732): These registers contain 6 bytes. The first five bytes contain codes indicating whether a port is locked by another port or not.

Port Control Lock States		
Register	High Byte	Low Byte
41731	Port 4 (I/O)	Port 3
41732	Port 2	Port 1 (232/485)
41733	Diagnostic Port	Unused

- Initially, these bytes read as 0x0FF. When a port requests that another port be locked to its use (0x00100 - 0x00104 to Register 41731), these bytes will read with one of the following codes, indicating which port is the locked owner of which port:

0x000 = Locked by Port 4 (I/O)

0x001 = Locked by Port 3

0x002 = Locked by Port 2

0x003 = Locked by Port 1 (232/485)

0x004 = Locked by the Diagnostic Port (currently not used)

0x0FF = Unlocked

- Pointers (41733-41752): These registers, when read, return the values of the pointers controlling the Communication Buffers in the Nexus® device. They are unsigned integers and represent the indexes of the series of bytes that are the Receive and Transmit Circular Buffers. Since the buffers are 512 bytes long, valid values should range from 0x00000 to 0x001FF.
 - The order of the registers is:

Port Control Pointers				
Port	ReceiveIn	ReceiveOut	TransmitIn	TransmitOut
Port 4 (I/O)	41733	41734	41735	41736
Port 3	41737	41738	41739	41740
Port 2	41741	41742	41743	41744
Port 1 (232/485)	41745	41746	41747	41748
Diagnostic Port	41749	41750	41751	41752

- ReceiveIn indexes the location where the next received character will be placed in the Receive Buffer by the interrupt routine.
- ReceiveOut indexes the location where the next character should be removed from the Receive Buffer by the parsing routine.
- TransmitIn indexes the location where the next character to be transmitted should be placed by the communication generation routine.
- TransmitOut indexes the location of the next character to be transmitted by the interrupt routine.
- The Receive Buffer is empty if $\text{RecIn} = (\text{RecOut} + 1) \text{ Mod } 512$. The Receive Buffer is full if $\text{RecIn} = \text{RecOut}$.
- The Transmit Buffer is empty if $\text{TrmIn} = \text{TrmOut}$. The Transmit Buffer is full if $\text{TrmOut} = (\text{TrmIn} + 1) \text{ Mod } 512$.
- When a port is locked, its pointers may be modified by the locking port.

- When a TransmitIn Register is written, that causes the interrupt routines to transmit characters in the Transmit Buffer from TransmitIn to TransmitOut.
- Receive and Transmit Buffers (41985-44544): These registers, when read, return the contents of the appropriate Receive and Transmit Buffers. Each buffer is 256 Registers (512 bytes) long. The order of the buffers is:

Receive and Transmit Buffers		
Port	Receive	Transmit
Port 4 (I/O)	41985-42240	43265-43520
Port 3	42241-42496	43521-43776
Port 2	42497-42752	43777-44032
Port 1 (232/485)	42753-43008	44033-44288
Diagnostic Port	43009-43264	44289-44544

7.79: Reserved for Future Use (44545-44578)

7.80: Programmable Settings Block 1 (45057-57344)

See Chapter 6 for details.

7.81: Action Block - Resetting Meter Registers (57345-57517)

- Most of the registers in the Action Block are used to perform an action or reset a meter register. Unless otherwise stated, the action is performed when a value, any value, is written to that register.
- For example: In order to Reset Maximum Value in Meter Address 1, any value, such as '1' (0x00001) should be written to Register 57346 (0x0E001). The appropriate Modbus RTU command for this example would be: 01 06 E001 0001 2E0A (See Chapter 1 for Modbus protocol overview.)
- Description: Action Registers included in this block:
 - Log Reset (57345): This register, when written with any value, causes all logs to be cleared. This action should be performed **only** under the following two circumstances:
 1. When the Programmable Settings are modified, such that data already in the logs is invalidated. For example, any modifications involving the record size or organization of the contents of a snapshot would require the logs to be cleared of any previous data.
 2. When the Run-Time Code is upgraded, resulting in one of the following:
 - Redefinition of the layout or meaning of the Programmable Settings.
 - Altered behavior or capabilities of the logs.
- **NOTE:** Log Reset should be performed automatically by the software in either case and should not be an action directly available to the user. (See Chapter 5.)
- Maximum Reset (57346): This register, when written with any value, causes all Maximum Values to be cleared.
- Minimum Reset (57347): This register, when written with any value, causes all Minimum Values to be cleared.
- Energy Reset (57348): This register, when written with any value, causes all Energy Values to be cleared.
- Registers 57380-57382: Internal KYZ Enable, Internal KYZ Minimum Pulse Width, Internal KYZ Pulses/Whr sec are obsolete. These registers are no longer used.

- Reset Time of Use Current Season and Current Month (57386): When written, Time of Use Current Season and Current Month will reset.
- Manual Waveform Capture (57387): When written, the unit captures a waveform.
- Reset Internal Input Accumulations and Aggregations (57388): When written, Internal Input Accumulations and Aggregations will reset.
- Override Data not yet Valid Block (57389): This register is for diagnostics of communication between two microprocessors in the meter.
- Refresh External I/O Header Information (57390): This register, when written, causes all External Devices to be polled for their Information Blocks.
- Refresh External I/O Programming Information (57391): This register, when written, causes all External Devices to be polled for their Programming Blocks.

- Relay Locking Relay Selection (57392): This register and register 57393 will manually change the External Digital Output Modules' Relays. Using register 57392, the user can select relays to be locked by register 57393.
 - A bit value of 1 means that the relay will be affected by the value on the Action Selection Register (57393).
 - A bit value of 0 means that the relay will not be affected by the value on the Action Selection Register (57393).

Relay Locking Relay Selection Register (57392)																
Byte	High Byte								Low Byte							
Module	Module 1				Module 2				Module 3				Module 4			
Relay	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

- Relay Locking Action Selection (57393): This register will lock or unlock the relays of the External Digital Output Modules in Relay Selection Register 57392. Relays in the Selection Register (57392) with a bit value of 1 can be locked or unlocked by this Register. The Register is a 2-byte unsigned integer.

Relay Locking Action Selection Values	
Value	Description
0	Lock common to N.C. (normally closed)
1	Lock common to N.O. (normally open)
2	Unlock
3-65535	Not used

7.82: Device Identification Block 2 (65088-65280)

- Description: Device Identification Registers included in this block:
- Firmware Variation Strings (65089-65280):
 - Eight Registers each and Null Terminated ASCII Strings (Terminating Null (ASCII 00H) at the end of the string) (see Section 3.2: Type F1 - Null Terminated ASCII String on page 3-1.).

Operational Communication Settings						
Value	Protocol	Baud Rate	Parity	Stop Bits	Data Bits	Response Delay (ms)
0	Modbus ASCII	4800	None		5	0.00
1	Modbus RTU	9600	Even		6	0.25
2	DNP 3.0	19200	Odd		7	0.50
3		38400	Mark		8	0.75
4		57600	Space			1.00
5		115200				1.25
6						1.50
7				1		1.75
8				1.5		2.00
9-14						2.25-3.50
15				2		3.75
16-255						4.00-63.75

7.83: Password Block (65316-65344)

NOTE: The information in this section refers to the log in and log out functionality for the meter's Legacy security feature.

- Description: this register contains an enumeration that tells the device what action to take. The enumeration is as follows:

0x00000 - Set Level 1 Password

0x00001 - Set Level 2 Password

0x00002 - Enable Password Protection

0x00003 - Disable Password Protection

0x00004 - Enable Sealing Switch Protection

0x00005 - Disable Sealing Switch Protection

0x00006 - Set Network User 1 User Name and Password

0x00007 - Set Network User 2 User Name and Password

0x00008 - Set Network User 3 User Name and Password

0x00009 - Set Network User 4 User Name and Password

0x0000A - Set Network User 5 User Name and Password

0x0000B - Set Network User 6 User Name and Password

0x0000C - Set Network User 7 User Name and Password

0x0000D - Set Network User 8 User Name and Password

0x0000E - Set Network User 1 Privileges

0x0000F - Set Network User 2 Privileges

0x00010 - Set Network User 3 Privileges

0x00011 - Set Network User 4 Privileges

0x00012 - Set Network User 5 Privileges

0x00013 - Set Network User 6 Privileges

0x00014 - Set Network User 7 Privileges

0x00015 - Set Network User 8 Privileges

0x00016 - Read Network User 1 user Name and Privileges

0x00017 - Read Network User 2 user Name and Privileges

0x00018 - Read Network User 3 user Name and Privileges

0x00019 - Read Network User 4 user Name and Privileges All successful commands set access back to Level 0, revoking the 2-minute timer of any active password.

- New Password A (65332-65336)
- New Password B (65340-65344)
 - For setting Level 1 & Level 2 passwords: these registers are written to in order to set the Level 1 or Level 2 Password. The same password should be written to both sets of registers; a new password will be accepted only if the values written to both sets of registers agree.
 - After filling in both sets of registers, the Password Command register should be written with the command indicating which password is being updated.
 - Passwords must be 10 bytes long - consistent padding with extra characters must be performed. If a password is shorter than 10 bytes should be padded with SPACE (0x020) characters at the end.
 - Acceptable Passwords should consist of the ASCII characters ' ' (0x020), '0'-'9' (0x030-0x039), 'A'-'Z' (0x041-0x05A). Attempts to set a password with illegal characters will fail.
 - For setting network user name, password and privileges:
 - For setting network user name and password, software should send user name to New Password A field, and password to New Password B field. Software should always set non-zero length to user name and

password fields. If username or password is shorter than 10 bytes, then software should pad it with NULL (0x0) characters at the end.

- For setting network user privileges, software should send it to New Password A field, with undefined bit fields set to 0s.
- For reading network user name and privileges, the user must gain Level 2 password access to the meter and then issue the read network username & privileges command. The meter will place the user name in New Password A field and user privileges in New Password B field for software to read. The user cannot read the network password: the byte values in New Password A and New Password B fields are encoded. If the user does not have sufficient access rights or if the password command sequence entered is not correct, the user will read 0's for New Password A and New Password B fields.

8:Alternative Method for Downloading Logs

8.1: Overview

The preferred and recommended method for downloading logs from the Nexus® 1450 meter is using web API. For backward compatibility, the System Events Log and historical logs 1 and 2 can be downloaded using the serial method (see Chapter 5). This chapter contains information on these logs.

8.2: Historical Log 1 Format

- Profile information is in the Programmable Settings Block (see Chapter 7 for details).
- Historical Log 1 will fill to its total allocated memory. The number of records possible in the log is the total memory allocated divided by the record size (size of an Historical Log snapshot) and the 8 bytes record header. For example:

Record size = 64

File allocated = 1MB = 1048576

Number of records = $1048576 / (64+72) = 14563$

- Historical Log 1 Record Size: (45463):
 - This Register is an enumeration for the size of a record in the Historical log. The valid values are:
 - 0x00000 = 32 byte records
 - 0x00001 = 64 byte records
 - 0x00002 = 128 byte records
 - 0x00003 = 256 byte records
 - 0x00004 = 16 byte records
- Historical Log 1 Data Pointers: (45205-45332):

- These Registers indicate which information to include in a record in the Historical log. Each Data Pointer has the following four byte structure:

Size	Format	Description
2 byte	unsigned integer	Line Number
1 byte	unsigned character	Point number
1 byte	unsigned character	Reserved

- A Line Number is an index into the Communication Table. For example, Line Number 11 is for the 12th line in the Communication Table, 0.1 second Phase-to-Neutral Voltages. Data Pointers with Line Numbers greater than the number of lines in the table are ignored.
- A Point Number is an index into the Communication Table. For example, Point Number 1 is for the second entry in a Line. Line Number 11, Point Number 1 is the second in the twelfth line, 0.1 second VBN. Data Pointers with Point Numbers greater than the number of points for the line are ignored.
- Record Format: A record contains as many bytes as specified by the Historical Log 1 Record Size Field in the Programmable Settings Block (45463). The first eight bytes in each record is the Time Stamp. The format of the Time Stamp is:

Byte	Format	Range	Description
0	binary	0 - 99	century
1	binary	0 - 99	year
2	binary	1 - 12	month
3	binary	1 - 31	day
4	binary	0 - 23	hour
5	binary	0 - 59	minute
6	binary	0 - 59	second
7	binary	0 - 100	centisecond

- If the Historical record was recorded after powering up or the log was reset, the record does not contain information covering a full interval and the most significant bit of the second's byte will be set.

- If the Historical record was recorded after time was adjusted, the record might contain more or less than a full interval's worth of data.
 - If time is advanced within the current interval, or advanced or rolled back to outside the current interval, the record contains less than a full interval's worth of data and the most significant bit of the minute byte will be set.
 - If time is rolled back within the same interval, the record contains more than a full interval's worth of data and the bit before the most significant bit (bit 6) of the minute byte will be set.
- The remaining bytes are the values requested by the Historical Log 1 Data Pointers (45205-45332). If the first Data Pointer is requesting VBN a 4 byte value, then the next 4 bytes in the Record are VBN. This continues, Data Pointer for Data Pointer, until all Data Pointers have been satisfied, or the number of bytes is equal to the Historical Log 1 Record Size.

8.3: Historical Log 2 Format

- Profile information is in the Programmable Settings Block (see Chapter 7 for details).
- Historical Log 2 will fill to its total allocated memory. The number of records possible in the log is the total memory allocated divided by the record size (size of an Historical Log snapshot) and the eight bytes record header.
- Historical Log 2 Record Size: (45464):
 - This Register is an enumeration for the size of a record in the Historical log. The valid values are:
 - 0x00000 = 32 byte records
 - 0x00001 = 64 byte records
 - 0x00002 = 128 byte records
 - 0x00003 = 256 byte records
 - 0x00004 = 16 byte records

- Historical Log 1 Data Pointers: (45333-45332):
 - These Registers indicate which information to include in a record in the Historical log. Each Data Pointer has the following four byte structure:

Size	Format	Description
2 byte	unsigned integer	Line Number
1 byte	unsigned character	Point number
1 byte	unsigned character	Reserved

- A Line Number is an index into the Communication Table. For example, Line Number 11 is for the 12th line in the Communication Table, 0.1 second Phase-to-Neutral Voltages. Data Pointers with Line Numbers greater than the number of lines in the table are ignored.
- A Point Number is an index into the Communication Table. For example, Point Number 1 is for the second entry in a Line. Line Number 11, Point Number 1 is the second in the twelfth line, 0.1 second VBN. Data Pointers with Point Numbers greater than the number of points for the line are ignored.
- Record Format: A record contains as many bytes as specified by the Historical Log 1 Record Size Field in the Programmable Settings Block (45463). The first eight bytes in each record is the Time Stamp. The format of the Time Stamp is:

Byte	Format	Range	Description
0	binary	0 - 99	century
1	binary	0 - 99	year
2	binary	1 - 12	month
3	binary	1 - 31	day
4	binary	0 - 23	hour
5	binary	0 - 59	minute
6	binary	0 - 59	second
7	binary	0 - 100	centisecond

- If the Historical record was recorded after powering up or the log was reset, the record does not contain information covering a full interval and the most significant bit of the second's byte will be set.
- If the Historical record was recorded after time was adjusted, the record might contain more or less than a full interval's worth of data.
 - If time is advanced within the current interval, or advanced or rolled back to outside the current interval, the record contains less than a full interval's worth of data and the most significant bit of the minute byte will be set.
 - If time is rolled back within the same interval, the record contains more than a full interval's worth of data and the bit before the most significant bit (bit 6) of the minute byte will be set.
- If the Historical Log 2 Time of Use Enable byte (45952) is disabled, the remaining bytes are the values requested by the Historical Log 2 Data Pointers (45333-45460). If the first Data Pointer is requesting VBN a 4 byte value, then the next 4 bytes in the Record are VBN. This continues, Data Pointer for Data Pointer, until all Data Pointers have been satisfied, or the number of bytes is equal to the Historical Log 2 Record Size.

8.4: System Event Log Format

- The System Event Log stores events which affect the operation of the meter, including power events, time changes, log retrieval, and firmware changes. The full list is given on the next page.
- Record Format: The System Event record is 16 bytes.

[Timestamp] 8 bytes, Nexus Time stamp

[Record Type] 1 byte

[Record Details] 7 bytes

- Event Table:

Event Type ID	System Event Type	Record Sequence	Bytes 0 to 7	Byte 8	Byte 9	Byte 10	Byte 11	Byte 12	Byte 13	Byte 14	Byte 15
0x000	Run Time Status (Power)	First	Time Stamp	Event Type ID	Details	Undefined					
0x001	Password	First	Time Stamp	Event Type ID	Action	Port ID	Undefined				
0x002	Change Programmable Settings	First	Time Stamp	Event Type ID	Undefined						
0x003	Change Firmware	First	Time Stamp	Event Type ID	Firmware ID	Current Major Version				Rec Sequence	Undefined
		Second	Time Stamp	Event Type ID	Firmware ID	Current Minor Version				Rec Sequence	Undefined
0x004	Change Time	First	Time Stamp	Event Type ID	Part changed	Port ID	Undefined				
0x005	Test Mode	First	Time Stamp	Event Type ID	Action	Port ID	Undefined				
0x006	Log Retrieval	First	Time Stamp	Event Type ID	Action	Log ID	Port ID	Rec Sequence	Protocol	IP Byte 1	IP Byte 2
		Second	Time Stamp	Event Type ID	Action	Log ID	Port ID	Rec Sequence	IP Byte 3	IP Byte 4	Undefined
0x007	Feature Reset	First	Time Stamp	Event Type ID	Item ID	Port ID	Undefined				
0x008	System Initialization problem	First	Time Stamp	Event Type ID	Problem Type	Prob Detail	Undefined				
0x009	Change meter serial number	First	Time Stamp	Event Type ID	Rec Sequence	Port ID	Old Serial Number MSB Part				
		Second	Time Stamp	Event Type ID	Rec Sequence	Old Serial Number LSB Part			Undefined		
0x00A	Bio-Block	First	Time Stamp	Event Type ID	Rec Sequence	Block ID	Update Order	Port ID	Reason = 1	Not Used	
0x00A	Bio-Block (Ethernet Board 1)	First	Time Stamp	Event Type ID	Rec Sequence	Block ID = 2	Update Order	Port ID	Reason = 2	MAC Byte 1	MAC Byte 2
		Second	Time Stamp	Event Type ID	Rec Sequence	Block ID = 2	Update Order	MAC B3	MAC Byte 4	MAC Byte 5	MAC Byte 6

Event Type ID	System Event Type	Record Sequence	Bytes 0 to 7	Byte 8	Byte 9	Byte 10	Byte 11	Byte 12	Byte 13	Byte 14	Byte 15
0x00A	Bio-Block (Front Panel Board)	First	Time Stamp	Event Type ID	Rec Sequence	Block ID = 3	Update Order	Port ID	Reason >= 2	Contrast	Volume
		Second	Time Stamp	Event Type ID	Rec Sequence	LCD Turnoff Timeout		X Left Coordinate	X Right Coordinate		
		Third	Time Stamp	Event Type ID	Rec Sequence	Y Top Coordinate		Y Bottom Coordinate	Undefined		
0x00A	Bio-Block (Digital Board)	First	Time Stamp	Event Type ID	Rec Sequence	Block ID = 8	Upd Order	Port ID	Reason = 2	Cal Status	Cal Error
		Second	Time Stamp	Event Type ID	Rec Sequence	F Tst Status	Fin Tst Error	Undefined			
0x00B	VSwitch	First	Time Stamp	Event Type ID	V-Switch Value	Port ID	Undefined				
0x00C	Security	First	Time Stamp	Event Type ID	Action	Port ID	User Acc Idx	Undefined			
0x00D	Clock Compensation	First	Time Stamp	Event Type ID	Enabled/Disabled	Port ID	Undefined				

- Run Time Status - Power Record:
 - The first byte of the sub-fields indicates whether power was lost or regained at the recorded time:

0x000	Run Time was stopped (power loss, boot mode, etc.). The timestamp record is that recorded before the meter be turned off.
0x001	Run Time has started.
0x002	Run Time is active (all readings have initialized, polling, logging limits, etc. are enabled)
0x003-0x0FF	Undefined

- The remaining 6 bytes of the sub-fields are undefined.
- Password Record:
 - The Password System Event record is stored when the administrative password is used or changed. See Security Record for changes in the individual user accounts.

- The first byte of the sub-fields indicates what action occurred at the recorded time:

0x000	Password Protection was Enabled.
0x001	Password Protection was Disabled.
0x002	The Level 1 Password was changed.
0x003	The Level 2 Password was changed.
0x004	Level 1 access was granted.
0x005	Level 2 access was granted.
0x006	An invalid password was supplied.
0x007-0x0FF	Undefined

- The second byte of the sub-fields indicates what port was used for the action:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The remaining 5 bytes of the sub-fields are undefined.

- Change Programmable Settings:
 - The 7 bytes of the sub-fields are undefined.
 - The first byte of the sub-fields indicates which copy was successfully created and saved. If all bits are zero, no copy was successfully created/saved:

Bit 0 (Less significant bit) = 1 (First copy OK)

Bit 1 (Less significant bit) = 1 (Second copy OK)

Bit 2 (Less significant bit) = 1 (Third copy OK)

Bits 3-7 = Not defined

- The 6 bytes of the sub-fields are undefined.
- Change Firmware:
 - This event type can generate up two consecutive records.
 - The first byte of the sub-fields indicates which firmware has been changed:

0x000	Comm Run Time
0x001	Undefined
0x002	Comm Boot
0x003	FPGA
0x004	DSP2 Run Time
0x005-0x0FF	Undefined

- The next 4 bytes of the sub-fields indicates the current major/minor version number of the changed firmware. They major/minor version is left leading with space/zeros. (For FPGA the minor firmware version will be just into the second and third byte.)

- The sixth byte of the sub-fields indicates the record sequence.

0x000	no extra record (for firmware that does not have minor version number)
0x001	the first record of the sequence, it contains the major version number
0x002	the second record of the sequence, it contains the minor version number

- The seventh byte of the sub-fields is undefined
- Change Time:
 - This record is used to indicate manual changes of the time of the meter, as performed via communication commands. Automatic functions, such as IRIG-B or Daylight Savings, are not indicated by this record.
 - The first byte of the sub-fields indicates which part of the time change this record shows:

0x000	Old Time - The time stamp is the old time of the meter.
0x001	New Time - The time stamp is the new time of the meter.
0x002	Old Time - Auto correction, time stamp before correction was made. Internally used, so next byte should be 0.
0x003	New Time - Auto correction, corrected time stamp.
0x004-0x0FF	Undefined

- The second byte of the sub-fields indicates what port was used to change the time:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The remaining 5 bytes of the sub-fields are undefined.
- Log Download:
 - When logs are retrieved, the action is recorded in the system event log. When retrieving logs over Ethernet, two records are generated to record the IP address of the software doing the retrieval. When retrieving logs otherwise, only one record is recorded.

- FIRST RECORD:

- The first byte indicates the log download action:

0x000	Download Started, Log records while downloading
0x001	Download Started, Log Paused while downloading
0x002	Download Ended.
0x003	Download Ended, dropped records. (Log download using file system access)

- The second byte of the sub-fields indicates which log was being downloaded:

0x000	Interval 1 Log
0x001	Interval 2 Log
0x002	Limit Log
0x003	n/a
0x004	Digital Input Log
0x005	n/a
0x006	Digital Output Log
0x007	n/a
0x008	Flicker Log
0x009	Waveform Log
0x00A	System Event Log
0x00B	Transient Log
0x00C	PQ Log
0x00D	Reset Log - NOT SUPPORTED
0x00E	Interval Log 3 Log
0x00F	Interval Log 4 Log
0x010	Interval Log 5 Log
0x011	Interval Log 6 Log
0x012	Interval Log 7 Log
0x013	Interval Log 8 Log
0x014	Event triggered Log
0x015-0x0FF	Undefined

- The third byte of the sub-fields indicates what port was used to download the log:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The fourth byte of the sub-fields indicates the sequence number: (Ethernet only).

0x000	first record
0x001	second record

- The fifth byte of the sub-fields indicates the protocol: (Ethernet only).

0x000	MODBUS TCP
0x001	FTP

- The remaining 2 bytes of the sub-fields are the first two bytes of the client IP address.

- **SECOND RECORD:**

- The first fourth bytes of the sub-fields are defined as into the first record.
- The fifth and sixth bytes of the sub-fields are the last bytes of the client IP address.
- The remaining 1 byte of the sub-fields is undefined.

- Feature Reset:
 - A Feature Reset System Event record occurs when a log or accumulator is reset by an external request.
 - The first byte indicates what feature was being reset:

0x000	All Logs Reset
0x001	Maximum Reset
0x002	Minimum Reset
0x003	Energy Reset
0x004	Time of Use Current Month
0x005	Internal Input Accumulations and Aggregations
0x006	KYZ Output Accumulations
0x007	Cumulative Demand
0x008	Interval 1 Log Reset
0x009	Interval 2 Log Reset
0x00A	Limit Log Reset
0x00B	Digital Input Log Reset
0x00C	Digital Output Log Reset
0x00D	Flicker Log Reset
0x00E	Waveform Log Reset
0x00F	PQ Log Reset
0x010	System Event Log Reset
0x011	Total Average Power Factor Reset
0x012	Time of Use Active registers
0x013	Test Mode - NOT SUPPORTED
0x014	Interval 3 Log Reset
0x015	Interval 4 Log Reset
0x016	Interval 5 Log Reset
0x017	Interval 6 Log Reset
0x018	Interval 7 Log Reset
0x019	Interval 8 Log Reset
0x01A	Event triggered Log Reset

0x01B	Transient Log Reset
0x01C	EN50160 data reset
0x01D	EN50160 report reset
0x01E	EN50160 log reset
0x01F	EN50160 data preset

- The second byte of the sub-fields indicates what port was used to request the reset.

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The remaining 5 bytes of the sub-fields are undefined.
- System Initialization Problem:
 - The System Initialization System Event records when the meter detected a problem during boot up.
 - The first byte indicates the problem type:

0x000	Log Initialization
0x001-0x0FF	Undefined

- The second byte of the sub-fields indicates the reason of the problem.

Bit (0x01)	The log folder into the compact flash has a bad layout: files are out of order, files are missed, file have wrong size, directories exist into that folder
Bit 2 (0x02)	The memory allocated is bigger than the memory available
Bit 3 (0x04)	The log folder and the system event log file was created
Bit 4 (0x08)	Some log files are missed then they are created (This bit should not be set, excepted for special runtime version that allows creating log files)
Bit 5 (0x10)	The log files are out of order (This bit should not be set, excepted for special runtime version that allows creating log files)
Bit 6 (0x20)	There were extra log files in the end of the log folder and they were deleted (This bit should not be set, excepted for special runtime version that allows creating log files)
Bit 7 (0x40)	There were extra files into the log folder (This bit should not be set, excepted for special runtime version that allows creating log files)

- The remaining 5 bytes of the sub-fields are undefined.
- Change Meter Serial Number:
 - This event generates two consecutive records.
 - FIRST RECORD:
 - The first byte of the sub-fields indicates the sequence number.

0x000	first record
0x001	second record

- The second byte of the sub-fields indicates what port was used to change the serial number:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The remaining 5 bytes of the sub-fields are used to save the 5 most significant bytes of the old meter serial number.

- SECOND RECORD:

- The first byte of the sub-fields indicates the sequence number.

0x001	second record
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- The second, third and fourth bytes of the sub-fields are used to save the 3 less significant bytes of the old meter's serial number.
- The remaining 3 bytes of the sub-fields are undefined.

- V-switch:
 - A V-Switch system event record indicates the changing of the V-switch of the meter.
 - The first byte indicates the value of the v-switch to be updated to.
 - The second byte of the sub-fields indicates what port was used for the action:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The remaining 5 bytes of the sub-fields are undefined.
- Security:
 - A Security System Event record occurs when a security change occurs, such as changing a username or password used to log on to the meter. See Password Record for changes in the administrative password.
 - The first byte of the sub-fields indicates what action occurred at the recorded time:

0x000	Sealing switch enabled
0x001	Sealing switch disabled
0x002	Network username/password changed
0x003	Network privileges changed
0x004-0x0FF	Undefined

- The second byte of the sub-fields indicates what port was used for the action:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The third byte of the sub-fields is only valid for actions 0x002-0x003 and indicates the user account number:

0x000	n/a
0x001	user account 1
0x002	user account 2
0x003	user account 3
0x004	user account 4
0x005	user account 5
0x006	user account 6
0x007	user account 7
0x008	user account 8

- The remaining 4 bytes of the sub-fields are undefined.

- Clock Compensation:
 - The first byte indicate if the clock compensation was enabled or disabled:

0x000	Disabled
0x001	Enabled

- The second byte of the sub-fields indicates what port was used for the action:

0x000	internal use
0x001	PORT 1 - IR/OPTICAL PORT
0x002	LCD touch screen
0x003	ETHERNET 1
0x004	ETHERNET 2
0x005	PORT 3- RS485 - master or slave
0x006	reserved, N/A
0x007	USB only, N/A for UART
0x008	PORT 4 - RS485, master or slave
0x009	PORT 2 - UART, USB serial
0x00A-0x0FF	Undefined

- The remaining 5 bytes of the sub-fields are undefined.

9: Additional Procedures

9.1: Overview

This chapter contains additional procedures related to the Modbus map.

9.2: Port Locking - Overview

At times it may be necessary for a Modbus master connected to one port of a Nexus® meter to communicate directly to a slave device connected to a different port of the same meter. For example, software on a computer connected to one port of a Nexus® meter might need to change settings on an external device connected to another port of the meter. To accommodate this need, the following steps allow a Master to control the transmit and receive buffers of another port.

To prevent contention, only one master at a time may control a given port. This is referred to as "Locking a Port". If Port 1 is controlling Port 4, no other ports may control Port 4 until Port 1 is finished.

9.2.1: Sequence for Port Locking

To lock a port, follow the steps below:

1. Determine the port to which the Modbus master is currently attached (read register 65411).
2. Determine that the desired port is currently unlocked: (read registers 41730 - 41732).
3. Write to lock the desired port: write 0100H - 0104H to register 41729.
4. Verify that the port is successfully locked (read registers 41730 - 41732).
5. Read the current states of the pointers: registers 41733 - 41752.

9.2.2: Transmission

1. Decide which transmit buffer to use, from 4 to 7, and write it to register 41753.
2. Find the current position of the TrmIn pointer: registers 41735, 41739, 41743, 41747, 41751.
3. Add bytes to the transmit buffer starting at the position indexed by the TrmIn pointer, up to the position before that indexed by the TrmOut pointer.
4. Write the new value for the TrmIn pointer (the position after the last byte added) to the TrmIn pointer.

9.2.3: Reception

1. Decide which receive buffer to use, from 0 to 3, and write it to register 41753.
2. Find the current position of the RecOut pointer: registers 41734, 41738, 41742, 41746, 41750.
3. Read bytes starting at the position after that indexed by the RecOut pointer, up to the position before the position indexed by the RecIn pointer.
4. Write the new value for the RecOut pointer (the position of the last byte read) to the RecOut pointer.

9.2.4: Port Unlocking Sequence

To unlock a port, follow the steps below:

1. Empty the receive buffer (RecOut written so it is the position before RecIn).
2. Write to unlock the desired port: write 0200H - 0204H to register 41729.
3. Verify that the port is successfully unlocked: registers 41730 - 41732.

9.3: Updating Programmable Settings

Note that this procedure is included for completeness, but is not recommended for regular customer use. The Communicator EXT™ software creates the programmable settings file automatically when it is used to update programmable settings. That is the recommended procedure.

1. Build the binary programmable settings block to update to the meter. All 32k of programmable settings must be updated.
 - a. The programmable settings are broken into two blocks, Block 1 and Block 2, each 16384 bytes in size.
 - b. Compute the CRC16 on the first 16382 bytes of Block 1. We do not include the last two bytes, as this is where the checksum is stored.
 - c. Continue computing the checksum (using the previously computed checksum as the seed), on all 16384 bytes of Block 2.
 - d. Place the computed checksum into the last two bytes of Block 1.
2. If Level 2 Password Protection is enabled, send the Level 2 password to allow updating of the programmable settings. If Sealing switch is enabled, press the Sealing switch.
3. If any changes were made to the programmable settings which affect the logs, the logs should be cleared:
 - a. Lock the logs to prevent them from being updated until the meter is reset. Write 0xABCD to register 0xE052.

b. Write 0xFFFF to the register listed below to reset that log.

All Logs	0xE000
Historical 1	0xE035
Historical 2	0xE036
Sequence of Events	0xE037
Digital Input	0xE038
Digital Output	0xE039
Flicker	0xE03A
Waveform	0xE03B
PQ	0xE03C
Historical 3	0xE04A
Historical 4	0xE04B
Historical 5	0xE04C
Historical 6	0xE04D
Historical 7	0xE04E
Historical 8	0xE04F
Event Triggered	0xE050
Transient	0xE051
TOU Action Log	0xE0A5
TOU Month and Season Log	0xE0A7

4. Write the programmable settings data:

NOTE: All 32k of data must be written for the programmable settings to be updated.

a. Write Block 1 for 16384 bytes starting at register 0xB000.

b. Write Block 2 for 16384 bytes starting at register 0x6000.

5. Wait for the meter to finish storing the programmable settings.

a. Read the Programmable Settings Update Status registers: 7 registers starting at 0xFFE0.

offset	0	1	2	3	4	5	6	7
0x00	Match (MSB)	Mode (LSB)	Error Code		Time Stamp			
0x08	Time Stamp				Checksum			

- Match: Indicates if the RAM and stored programmable settings match. 0 indicates a match, 1 indicates no match.
- Mode: Indicates if the meter is in the process of updating the programmable settings. 0 indicates the process is idle, otherwise an update is in progress.
- Error Code:
 - 0 No Error
 - 1 Internal Global Flag not set
 - 2 Buffer not ready
 - 3 Bad Checksum
 - 4 Internal Checks Failed
 - 5 Could not write file header
 - 6 Data Write Error
- Time Stamp: Nexus 8 byte time stamp
- Checksum: Checksum of the stored programmable settings.

b. If the Status mode indicates that the update is idle, check that Match indicates that the RAM and file copies match, and that Error Code indicates No Error.

- If so, programmable settings have successfully been updated, and you may continue.
- If not, check the Status Error Code:
 - If an error is indicated, exit the update.
 - If no error is indicated, continue waiting.

6. If logs were reset at the beginning of the process, wait for all logs to finish resetting before continuing:

a. Query the log status register for each of the logs.

Historical 1	0x9012
Historical 2	0x9052
Historical 3	0x9E17
Historical 4	0x9E57
Historical 5	0x9E97
Historical 6	0x9ED7
Historical 7	0x9F17
Historical 8	0x9F57
Event Triggered	0x9F97
Sequence of Events (aka, Limits, Alarms)	0x9097
Digital Inputs	0x9117
Digital Outputs	0x9197
Flicker	0x9217
Waveform	0x9242
PQ	0x9317
System Events	0x9295
Transient	0x92C2
TOU Action Log	0xA117
TOU Month and Season Log	0xA157

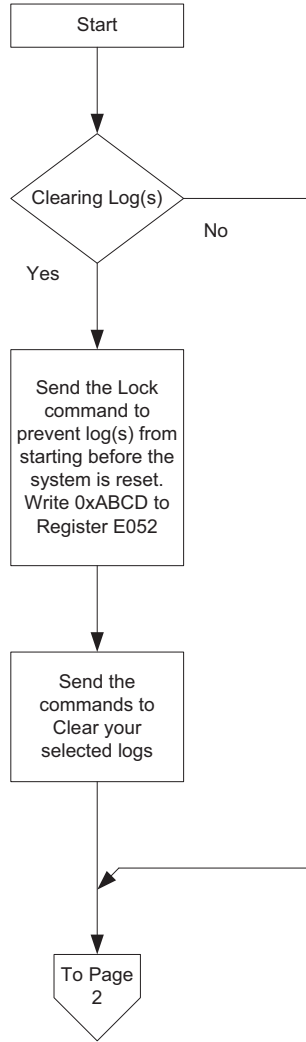
b. Wait until all status registers read 0.

7. Send the command to reset the meter. Programmable settings do not take effect until the meter has been reset. The Reset command is protected by the Level 2 password and the Sealing switch, if those are enabled. The meter will not process the Reset command if it's in the middle of processing a programmable settings update.

a. Send 0x0001 to register 0xFFFA.

b. Wait at least 30 seconds for the device to restart.

NOTE: See the Programming flowchart beginning on the next page.



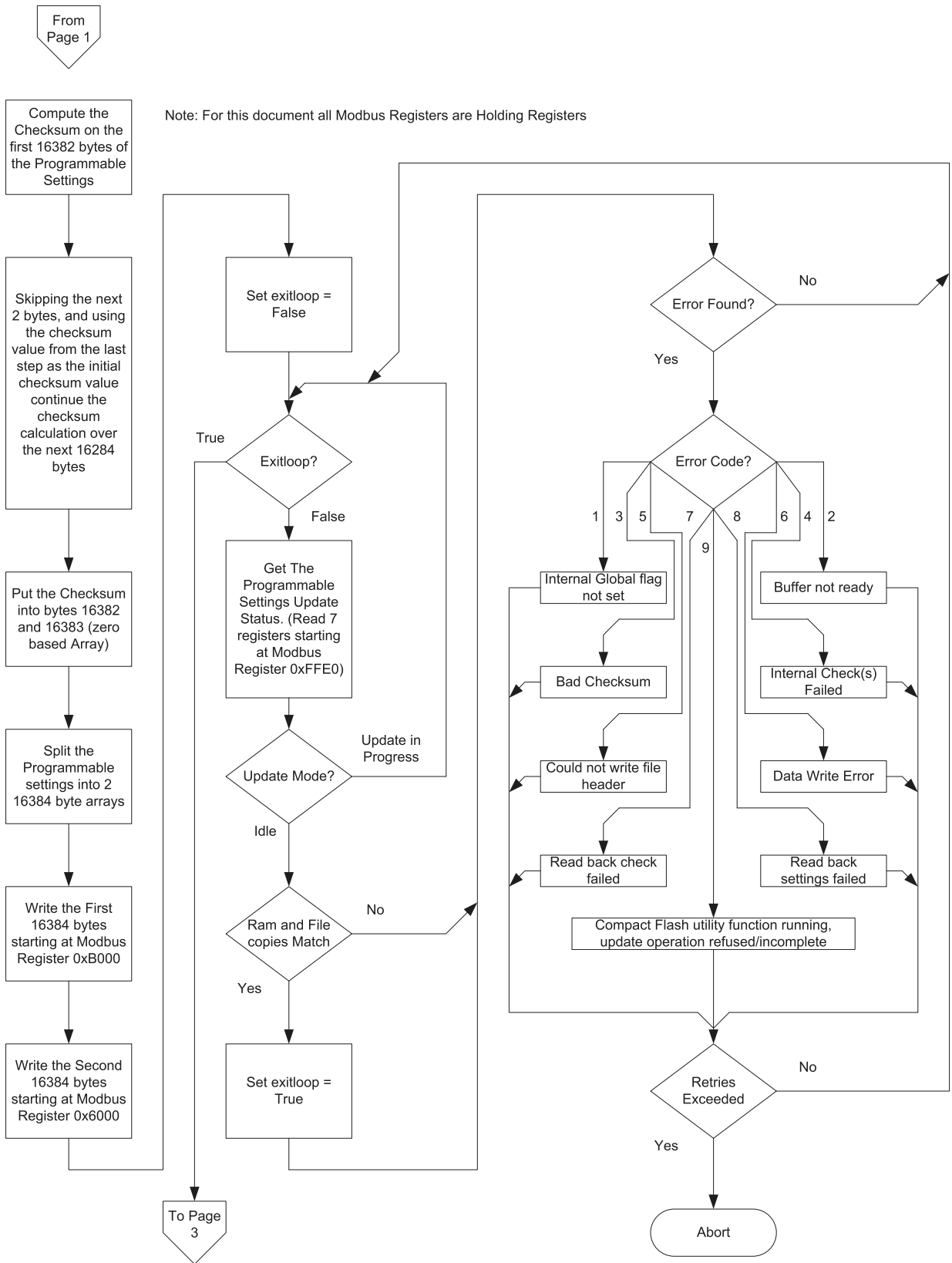
To Clear or Reset all logs excluding the System Event Log:

Write 0xFFFF to Holding Register 0xE000

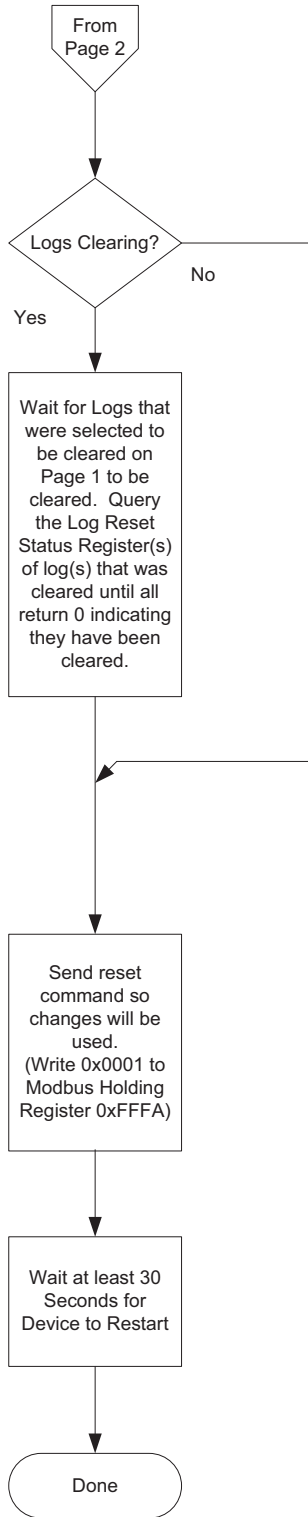
To Clear or Reset a specific Log:

Write 0xFFFF to the Holding Register associated with the Log shown in the table below: Rev 1.2

Log	Holding Register
Historical 1	0xE035
Historical 2	0xE036
Sequence of Events	0xE037
Digital Input	0xE038
Digital Output	0xE039
Flicker	0xE03A
Waveform	0xE03B
PQ	0xE03C
Historical 3	0xE04A
Historical 4	0xE04B
Historical 5	0xE04C
Historical 6	0xE04D
Historical 7	0xE04E
Historical 8	0xE04F
Event Triggered	0xE050
Transient	0xE051



Note: For this document all checksums use CRC-16 as defined in the Modbus RTU Protocol



Programmable Settings Update Status Registers (0xFFE0 to 0xFFE6)		
Holding Registers	Description	
0xFFE0	Ram and File Match(MSB)	Mode(LSB)
0xFFE1	Error Code	
0xFFE2 - 0xFFE5	Time Stamp	
0xFFE6	FileChecksum	

Ram and File Match(MSB):

- 0: File and RAM copies match
- 1: File and RAM copies do not match

Mode(LSB):

- 0: Idle, update not in progress
- Not 0: Update in progress

Error Code:

- 0: No Error
- 1: Internal Global flag not set
- 2: Buffer not ready
- 3: Bad Checksum
- 4: Internal Check(s) Failed
- 5: Could not write file header
- 6: Data Write Error
- 7: Read back check failed.
- 8: Read back settings failed.
- 9: CF Utility function running, update operation refused / incomplete.

Greater than 9 not defined

Time Stamp:

See Nexus Time Stamp format in the Modbus Manual.

FileChecksum:

Checksum of the file containing the programmable settings stored on the compact flash.

Log Reset Status Register(s)

- Historical 1 = 0x9012
- Historical 2 = 0x9052
- Historical 3 = 0x9E17
- Historical 4 = 0x9E57
- Historical 5 = 0x9E97
- Historical 6 = 0x9ED7
- Historical 7 = 0x9F17
- Historical 8 = 0x9F57
- Event Triggered = 0x9F97
- Sequence Of Events = 0x9097 'Limits
- Digital Inputs = 0x9117
- Digital Outputs = 0x9197
- Flicker = 0x9217
- Waveform = 0x9242
- PQ = 0x9317
- System Events = 0x9295
- Transient = 0x92C2

9.4: Time of Use Information

This section provides detailed information concerning the Modbus registers holding the meter's TOU data.

TOU Detail Status

- Current TOU detail status is in Modbus Holding register 8807H.
- Prior TOU detail status is in Modbus Input registers EF6FH and EF70H.
- The status provides detailed information, for example, whether or not TOU is running, if there are errors, if TOU is in Self Read mode or Manual Read mode, if the TOU season is configured as week or day. The user needs to read and process these registers before processing TOU data.

Customized Season

- The Current Season/Prior Season registers can be customized in the meter's TOU configuration to provide either Weekly or Daily behavior. In this case, the registers will no longer be called Current Season or Prior Season. Depending on the TOU configuration, the "Current Season" may be referred to as the "Current Week" or "Current Day," and the "Prior Season" may be referred to as the "Prior Week" or "Prior Day." Note that this will not change the operation of the "Current Month" or "Prior Month" registers, which will continue to operate according to the billing month dates set up in the TOU profile.

TOU Data Values

- The TOU data values are in the Modbus Input registers, starting at D037H. They are arranged as follows:
 - Current Billing Month, whole month - rate 0 to rate 4, each rate having data sets from 1 to 16.
 - Current Billing Month, initial season - rate 0 to rate 4, each rate having data sets from 1 to 16.
 - Current Billing Month, final season - rate 0 to rate 4, each rate having data sets from 1 to 16.

- Prior Billing Month, whole month - rate 0 to rate 4, each rate having data sets from 1 to 16.
- Prior Billing Month, initial season - rate 0 to rate 4, each rate having data sets from 1 to 16.
- Prior Billing Month, final season - rate 0 to rate 4, each rate having data sets from 1 to 16.
- Current Season/Week/Day - rate 0 to rate 4, each rate having data sets from 1 to 16.
- Prior Season/Week/Day - rate 0 to rate 4, each rate having data sets from 1 to 16.

TOU Data Set Values

- Accumulators: these are in primary, with scaled energy format.
- Identifiers:
 - For Current Month/Season/Week/Day:
 - The identifiers are in the TOU profile's Header section, Modbus Holding registers 882EH-8835H - 2 IDs in each register, with a total of 16 IDs for 16 datasets.
 - Available valid ID values are 1-30 and 40-48. These IDs are used to identify what each accumulator is and its detailed format in the meter profile, starting at Modbus Holding register CA00H.
 - For example, Positive Wh (Quadrant 1+4) would have an ID of 4, which is the 4th setting in the scaled energy format list, and its scaled energy format settings are located in meter profile CA01H's low byte.
 - For Prior Month/Season/Week/Day:
 - The identifiers are in the TOU's Prior Scaled Energy IDs, Modbus Input registers EF4FH-EF5EH - 2 IDs in each register, with a total of 16 IDs for 16 datasets.

- There are two sections - one for Prior Billing Month and one for Prior Season/Week/Day.
- Available valid ID values are 1-30 and 40-48. These IDs are used to identify what each accumulator is and its detailed format in the meter profile, starting at Modbus Input register EF1BH.
- For example, Previous Season +Wh Q1+4 would have an ID of 4, which is the 4th setting in the scaled energy format list and its scaled energy format settings are located in Modbus Input register EF36H's low byte.
- Peak Demand:
 - Data is in IEEE 32-bit floating point, primary format. The demand values correspond to the accumulator value settings.
 - For example, if the accumulator has a scaled energy ID setting of 4 (for +Wh Q1+4), then the demand would be identified as +W Q1+4.
- Cumulative Demand:
 - Data is in 32-bit unsigned integer, primary format. The demand values correspond to the accumulator value settings.
 - For example, if the accumulator has a scaled energy ID setting of 4 (for +Wh Q1+4), then the demand would be identified as +W Q1+4.
- Coincident Demand:
 - Data is in IEEE 32-bit floating point, primary format.
 - Identifiers:
 - For Current Month/Season/Week/Day:
 - The identifiers are in the TOU profile's Header section, Modbus Holding registers 8836H-883DH - 2 IDs in each register, with a total of 16 IDs for 16 datasets.

- Available valid ID values are 2, 3, 6, 8, 11, 13, 25 and 26 for VAR type data, and ID=0 for PF type data. These IDs are used to identify what each coincident demand is, starting at Modbus Holding register CA00H.
- For example, VAR Q1+2 would have an ID of 2, which is the 2nd item in the scaled energy format list.
- For Prior Month/Season/Week/Day:
 - The identifiers are in the TOU's Prior Scaled Energy IDs, Modbus input registers EF5FH-EF6EH - 2 IDs in each register, with a total of 16 IDs for 16 datasets.
 - There are two sections, one for Prior Billing Month and one for Prior Season/Week/Day.
 - Available valid ID values are 2, 3, 6, 8, 11, 13, 25 and 26 for VAR type data, and ID=0 for PF type data. These IDs are used to identify what each coincident demand is.
 - For example, VAR Q1+2 would have an ID of 2, which is the 2nd item in the scaled energy format list.
- Peak Demand Time Stamp:
 - The Time Stamp is in 6 bytes packed S-Format.
 - Each byte holds a value in the time stamp, i.e., year, month, day, hour, minute and second.
 - The Year value is offset from year 2000. For example, if Year=10, then Year value in the time stamp is 2010.

Additional TOU Support Information

- Additional TOU information is in Modbus Input registers D027H-D036H and EF71H-EF7CH:TOU Current/Prior Start times, Next Self Read time, Billing Month ID, and Season ID.

Glossary

1 Second Values:	These values are the RMS values of the indicated quantity as calculated after one second of sampling.
Alarm:	An event or condition in a meter that can cause a trigger or call-back to occur.
Annunciator:	A short label that identifies particular quantities or values displayed, for example kWh.
Average (Current):	<p>When applied to current values (amps) the average is a calculated value that corresponds to the thermal average over a specified time interval.</p> <p>The interval is specified by the user in the meter profile. The interval is typically 15 minutes.</p> <p>So, average amps is the thermal average of amps over the previous 15-minute interval. The thermal average rises to 90% of the actual value in each time interval. For example, if a constant 100 amp load is applied, the thermal average will indicate 90 amps after one time interval, 99 amps after two time intervals and 99.9 amps after three time intervals.</p>
Average (Input Pulse Accumulations):	When applied to Input Pulse Accumulations, the "Average" refers to the block (fixed) window average value of the input pulses.
Average (Power):	When applied to power values (Watts, VARs, VA), the average is a calculated value that corresponds to the thermal average over a specified time interval.

The interval is specified by the user in the meter profile. The interval is typically 15 minutes. So, the Average Watts is the thermal average of Watts over the previous 15-minute interval. The thermal average rises to 90% of the actual value in each time interval. For example, if a constant 100kW load is applied, the thermal average will indicate 90kW after one time interval, 99kW after two time intervals and 99.9kW after three time intervals.

Bit: A unit of computer information equivalent to the result of a choice between two alternatives (Yes/No, On/Off, for example).
Or, the physical representation of a bit by an electrical pulse whose presence or absence indicates data.

Binary: Relating to a system of numbers having 2 as its base (digits 0 and 1).

Block Window Avg (Power): The Block (Fixed) Window Average is the average power calculated over a user-set time interval, typically 15 minutes. This calculated average corresponds to the demand calculations performed by most electric utilities in monitoring user power demand. (See Rolling Window Average.)

Byte: A group of 8 binary digits processed as a unit by a computer (or device) and used especially to represent an alphanumeric character.

CBEMA Curve:	<p>A voltage quality curve established originally by the Computer Business Equipment Manufacturers Association. The CBEMA Curve defines voltage disturbances that could cause malfunction or damage in microprocessor devices.</p> <p>The curve is characterized by voltage magnitude and the duration which the voltage is outside of tolerance. (See ITIC Curve.)</p>
Channel:	<p>The storage of a single value in each interval in a load profile.</p>
Cold Load Pickup	<p>This value is the delay from the time control power is restored to the time when the user wants to resume demand accumulation.</p>
CRC Field:	<p>Cyclic Redundancy Check Field (Modbus communication) is an error checksum calculation that enables a Slave device to determine if a request packet from a Master device has been corrupted during transmission. If the calculated value does not match the value in the request packet, the Slave ignores the request.</p>
CT (Current) Ratio:	<p>A Current Transformer Ratio is used to scale the value of the current from a secondary value up to the primary side of an instrument transformer.</p>
Cumulative Demand:	<p>The sum of the previous billing period maximum demand readings at the time of billing period reset. The maximum demand for the most recent billing period is added to the previously accumulated total of the maximum demands.</p>
Demand:	<p>The average value of power or a similar quantity over a specified period of time.</p>

Demand Interval:	A specified time over which demand is calculated.
Display:	User-configurable visual indication of data in a meter.
DNP3:	A robust, non-proprietary protocol based on existing open standards. DNP3 is used to operate between various systems in electric and other utility industries and SCADA networks.
EEPROM:	Nonvolatile memory; Electrically Erasable Programmable Read Only Memory that retains its data during a power outage without need for a battery. Also refers to meter's FLASH memory.
Energy Register:	Programmable record that monitors any energy quantity. Example: Watt-hours, VAR-hours, VA-hours.
Ethernet:	A type of LAN network connection that connects two or more devices on a common communications backbone. An Ethernet LAN consists of at least one hub device (the network backbone) with multiple devices connected to it in a star configuration. The most common versions of Ethernet in use are 10BaseT and 100BaseT as defined in IEEE 802.3 standards. However, several other versions of Ethernet are also available.
Flicker:	Flicker is the sensation that is experienced by the human visual system when it is subjected to changes occurring in the illumination intensity of light sources. IEC 61000-4-15 and former IEC 868 describe the methods used to determine Flicker severity.

Harmonics:	Measuring values of the fundamental current and voltage and percent of the fundamental.
High Speed Values:	These values are the RMS values of the indicated quantity as calculated based on user programmable update rate, between 2 cycles and 20 cycles.
I ² T Threshold:	Data will not accumulate until current reaches programmed level.
Integer:	Any of the natural numbers, the negatives of those numbers, or zero.
Invalid Register:	In the Nexus® meter's Modbus Map there are gaps between Registers. For example, the next Register after 08320 is 34817. Any unmapped Register stores no information and is said to be invalid.
ITIC Curve:	An updated version of the CBEMA Curve that reflects further study into the performance of microprocessor devices. The curve consists of a series of steps but still defines combinations of voltage magnitude and duration that will cause malfunction or damage.
Ke:	kWh per pulse; i.e. the energy.
kWh:	Kilowatt hours; kW x demand interval in hours.
KYZ Output:	Output where the rate of changes between 1 and 0 reflects the magnitude of a metered quantity.
LCD:	Liquid Crystal Display.

LED:	Light Emitting Diode.
Maximum Demand:	The largest demand calculated during any interval over a billing period.
Modbus ASCII:	Alternate version of the Modbus protocol that utilizes a different data transfer format. This version is not dependent upon strict timing, as is the RTU version. This is the best choice for telecommunications applications (via modems).
Modbus RTU:	The most common form of Modbus protocol. Modbus RTU is an open protocol spoken by many field devices to enable devices from multiple vendors to communicate in a common language. Data is transmitted in a timed binary format, providing increased throughput and therefore, increased performance.
Network:	A communications connection between two or more devices to enable those devices to send to and receive data from one another. In most applications, the network is either a serial type or a LAN type.
NVRAM:	Nonvolatile Random Access Memory: able to keep the stored values in memory even during the loss of circuit or control power. High speed NVRAM is used in the Nexus® meter to gather measured information and to insure that no information is lost.
Optical Port:	A port that facilitates infrared communication with a meter. Using an ANSI C12.13 Type II magnetic optical communications coupler and an RS232 cable from the coupler to a PC, the meter can be

programmed with Communicator EXT™ software.

Packet:	A short fixed-length section of data that is transmitted as a unit. Example: a serial string of 8-bit bytes.
Percent (%) THD:	Percent Total Harmonic Distortion. (See THD.)
Protocol:	A language that is spoken between two or more devices connected on a network.
PT Ratio:	Potential Transformer Ratio used to scale the value of the voltage to the primary side of an instrument transformer. Also referred to as VT Ratio.
Pulse:	The closing and opening of the circuit of a two-wire pulse system or the alternate closing and opening of one side and then the other of a three-wire system (which is equal to two pulses).
Q Readings:	Q is the quantity obtained by lagging the applied voltage to a wattmeter by 60 degrees. Values are displayed on the Uncompensated Power and Q Readings screen.

Quadrant

(Programmable Values and Factors on the Nexus[®] meter:)

Watt and VAR flow is typically represented using an X-Y coordinate system. The four corners of the X-Y plane are referred to as quadrants. Most power applications label the right hand corner as the first quadrant and number the remaining quadrants in a counter-clockwise rotation. Following are the positions of the quadrants:

1st - upper right, 2nd - upper left, 3rd - lower left and 4th - lower right.

Power flow is generally positive in quadrants 1 and 4.

VAR flow is positive in quadrants 1 and 2.

The most common load conditions are:

Quadrant 1 - power flow positive, VAR flow positive, inductive load, lagging or positive power factor;

Quadrant 2 - power flow negative, VAR flow positive, capacitive load, leading or negative power factor.

Register:

An entry or record that stores a small amount of data.

Register Rollover:

A point at which a Register reaches its maximum value and rolls over to zero.

Reset:

Logs are cleared or new (or default) values are sent to counters or timers.

Rolling Window Average (Power):

The Rolling (Sliding) Window Average is the average power calculated over a user-set time interval that is derived from a specified number of sub-intervals, each of a specified time. For

example, the average is calculated over a 15-minute interval by calculating the sum of the average of three consecutive 5-minute intervals. This demand calculation methodology has been adopted by several utilities to prevent customer manipulation of kW demand by simply spreading peak demand across two intervals.

RS232:

A type of serial network connection that connects two devices to enable communication between the devices. An RS232 connection connects only two points. Distance between devices is typically limited to fairly short runs.

Current standards recommend a maximum of 50 feet but some users have had success with runs up to 100 feet.

Communications speed is typically in the range of 1200 bits per second to 57,600 bits per second. RS232 connection can be accomplished using Port 1 of the Nexus® 1250/1252 meter.

RS485:

A type of serial network connection that connects two or more devices to enable communication between the devices. An RS485 connection allows multi-drop communication from one to many points.

Distance between devices is typically limited to around 2,000 to 3,000 wire feet.

Communications speed is typically in the range of 120 bits per second to 115,000 bits per second.

Sag:

A voltage quality event during which the RMS voltage is lower than normal for a period of time, typically from 1/2 cycle to 1 minute.

Secondary Rated:	Any Register or pulse output that does not use any CT or PT(VT) Ratio.
Serial Port:	The type of port used to directly interface with a device using the RS232 standard.
Swell:	A voltage quality event during which the RMS voltage is higher than normal for a period of time, typically from 1/2 cycle to 1 minute.
TDD:	<p>The Total Demand Distortion of the current waveform. The ratio of the root-sum-square value of the harmonic current to the maximum demand load current. (See equation below.)</p> <p>NOTE: The TDD displayed in the Harmonics screen is calculated by the meter, using the Max Average Demand.</p> $TDD_I = \frac{\sqrt{I_2^2 + I_3^2 + I_4^2 + I_5^2 + \dots}}{I_L} \times 100\%$
THD:	<p>Total Harmonic Distortion is the combined effect of all harmonics measured in a voltage or current. The THD number is expressed as a percent of the fundamental. For example, a 3% THD indicates that the magnitude of all harmonic distortion measured equals 3% of the magnitude of the fundamental 60Hz quantity. The %THD displayed is calculated by your Nexus® meter.</p> $THD_I = \frac{\sqrt{I_2^2 + I_3^2 + I_4^2 + I_5^2 + \dots}}{I_1} \times 100\%$
Time Stamp:	A stored representation of the time of an event. Time Stamp can include year, month, day, hour, minute, second and Daylight Savings Time indication.

TOU:	Time of Use.
Uncompensated Power:	VA, Watt and VAR readings not adjusted by Transformer Loss Compensation.
V ² T Threshold:	Data will stop accumulating when voltage falls below programmed level.
Voltage Imbalance:	The ratio of the voltage on a phase to the average voltage on all phases.
Voltage Quality Event:	An instance of abnormal voltage on a phase. The events the meter tracks include sags, swells, interruptions and imbalances.
VT Ratio:	The voltage transformer Ratio is used to scale the value of the voltage to the primary side of an instrument transformer. Also referred to as PT Ratio.
Voltage, Vab:	Vab, Vbc, Vca are all Phase-to-Phase voltage measurements. These voltages are measured between the three phase voltage inputs to the meter.
Voltage, Van:	Van, Vbn, Vcn are all Phase-to-Neutral voltages applied to the monitor. These voltages are measured between the phase voltage inputs and Vn input to the meter. Technologically, these voltages can be "measured" even when the meter is in a Delta configuration and there is no connection to the Vn input. However, in this configuration, these voltages have limited meaning and are typically not reported.

Voltage, Vaux

This is the fourth voltage input measured from between the Vaux and Vref inputs. This input can be scaled to any value. However, the actual input voltage to the meter should be of the same magnitude as the voltages applied to the Va, Vb and Vc terminals.