HEATIT Z-TRM3

Firmware 4.0

01.01.2021
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Installers manual

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1. INTRODUCTION

Heatit Z-TRM3 is an electronic thermostat for electrical floor heating, designed to be mounted in a standard flush box. The thermostat has a built-in Z-Wave chip that can be connected with Home Automation systems. Heatit Z-TRM3 is equipped with a single-pole relay and fits into System 55 frames. The thermostat can withstand a load of max 16A /3600W at 230VAC.

NB! If the sensor mode is changed to A or AF mode then a room sensor compensation process will start, which limits maximum power output to 75%. The thermostat adapts to the environment within a few days. No internal sensor calibration should be performed during the first few days.

2. STATEMENT REGARDING PRODUCTS FROM MULTIPLE MANUFACTURERS
Please read this before installation
This device may be used with all devices certified with the Z-Wave Plus™ certificate and should be compatible with such devices produced by any manufacturer. Every primary controller is different depending on the manufacturer, their target audience and intended use/application. Please review the functionalities implemented by the primary controller you intend to use with our Z-Wave Plus certified device to ensure that it provides the necessary controls to take full advantage of our product's capabilities.

3. BEHAVIOR WITHIN THE Z-WAVE™ NETWORK
This device may be operated within any Z-Wave network with Z-Wave-certified devices from other manufacturers. All non-battery-operated nodes within the network will act as repeaters regardless of manufacturer to increase the reliability of the network. On delivery, the device does not belong to any Z-Wave network.
The device needs to be added to an existing network to communicate with the other devices within it. Devices may also be removed from a network. The add/remove processes are initiated by the primary controller of the Z-Wave network.

4. QUICK START
1. Switch off the mains supply (disable the fuse).
2. Open the wall switch box.
3. Connect wires according to the labeling described in chapter 5 "Installation".
4. After verifying the connections, switch the mains supply back on.
5. Set the primary controller in add mode (security/non-security).
6. Press and hold the center button until "OFF" is shown on the display (approx. 10 seconds).
7. Press down button until you reach "CON", press and hold until the display shows a rotating light pattern.
8. The thermostat will display "INC" when the thermostat is successfully added.

NB! If adding/removing fails, Err (error) will appear.

5. INSTALLATION

Installation must be done by a qualified electrician in accordance with the National Building codes. Before installation, disconnect the power to the device from the mains. During installation of the device, power to the device must be disconnected AT ALL TIMES!
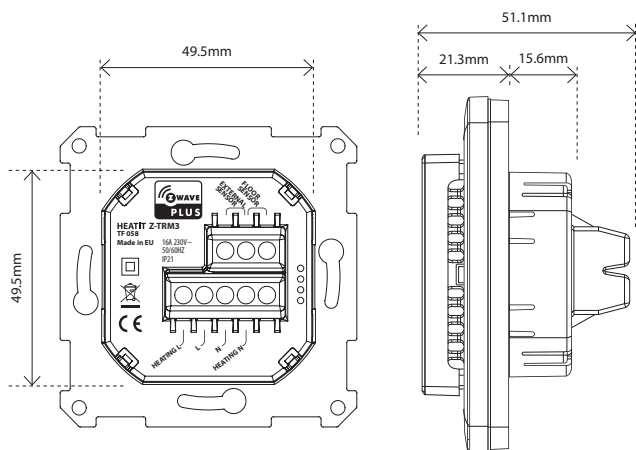
5.1 Controls

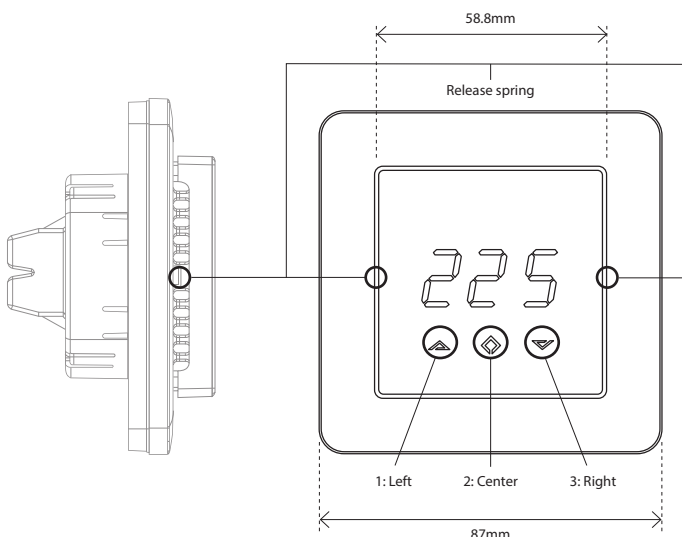Use e.g. a small slotted screwdriver. Start by carefully removing the front cover by pushing the release springs. The front cover and the frame may now be removed.

Connect the wires to the thermostat terminals:
Use 1.5mm² or 2.5mm² according to load.

HEATING (N)	Heating cable connection (Neutral)
N	Power connection (Neutral) 230VAC
L	Power connection (Live) 230VAC
HEATING (L)	Heating cable connection
FLOOR SENSOR	NTC type (10, 12, 15, 22, 33 or 47kΩ)
	Default 10kΩ
EXTERNAL SENSOR	NTC type (10, 12, 15, 22, 33 or 47kΩ)
	Default 10kΩ

Next, position the thermostat and mount it into the wall flush box using 2-4 screws. Position the frame over the flush box, then position and carefully press the front cover until it snaps in place. Check that the front cover has snapped in place properly on both sides. The front cover should now fit firmly on all sides. In order to read the Power Metering, the load needs to be connected to both heating L + N.

Note! The top cover has to be installed when the thermostat is connected to the main power source. The thermostat is not a SELV product. All voltage parts must be considered to be 230VAC.

6. ADD/REMOVE
Please read this before installation

The primary controller/gateway has a mode for adding or removing devices. Please refer to your primary controller manual on how to set the primary controller in add/remove mode. The device may only be added or removed from the network if the primary controller is in add/remove mode. When the device is removed from the network, it will NOT revert to factory settings.

There are two ways to add the device to a Z-Wave network.

6.1 Method 1: Standard (Manual)

1. Press Center (confirm) for 10 seconds. The display will show OFF.
2. Press Right (down) 5 times until you see Con on the display.
3. Start the add/remove device process in your primary controller.
4. Start the add/remove mode by pressing Center (confirm) for approximately 2 seconds.

Adding/removing mode is indicated on the display by rotating LED segments on the display. This lasts until the timeout occurs after 90 seconds, or until the module has been added/removed in the network. Confirmation will show Inc/EcL on the display. Exit programming mode by choosing ESC in the menu. Your thermostat is now ready for use with default settings.

NB! When the thermostat is removed from the gateway, the parameters are not reset. To reset the parameters, see Chapter 7: "Factory reset". If adding/removing fails, Err (error) will appear. Please perform a "remove device" process and try again. If Err displays again, please see Chapter 7: "Factory reset".

6.2 Method 2: SmartStart (Automatic)

SmartStart enabled products may be added to a Z-Wave network by scanning the Z-Wave QR-Code on the product if your primary controller supports SmartStart inclusion. No further action is required and the SmartStart product will be added automatically after being powered on within range of the primary controller.

The Z-Wave QR-Code locations may be found in Chapter 20 "Z-Wave QR-Code/DSK".

7. FACTORY RESET

By pressing buttons Right and Center (down and confirm) for 20 seconds, the thermostat will perform a complete factory reset. The device will display rES for 10 seconds while performing a factory reset. When rES no longer is displayed, the thermostat has been reset.

NB! Please use this procedure only when the primary controller/gateway is missing or otherwise inoperable.

7.1 Startup

After powering up the device for the first time, all the parameters will have default settings.

8. PRINCIPLES OF REGULATION

Using Floor / External sensor (F, A2 or A2F-Mode)

The thermostat uses temperature readings retrieved from the internal sensor or external wired sensor to regulate heating. When you have chosen a setpoint temperature, the thermostat will use an internal hysteresis to regulate the temperature. This hysteresis is adjustable. See Chapter 5 "Installation".

Using Internal sensor (A-mode/AF mode)

If you have a set point of 20°C, the thermostat will use the full power until the temperature is 19°C. The thermostat will then begin to regulate the output from 19°C with a 75% duty cycle until it reaches 19.25°C. When the temperature has reached 19.5°C the thermostat will use a 50% duty cycle, until it reaches 20°C, then the thermostat turns off and repeats the process. For example, at a 75% duty cycle it will turn ON for a total of 90 minutes and OFF for 30 minutes.

50% duty cycle

| 20 min. | | 20 min. | | 20 min. |

2 hrs.

75% duty cycle

| 30 min. | | 30 min. | | 30 min. |

2 hrs.
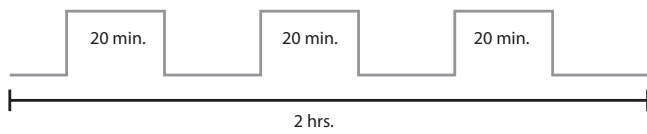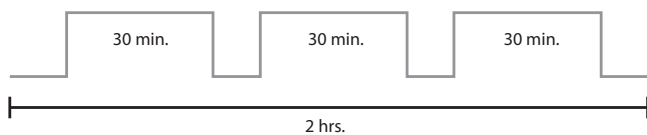
9. PROGRAMMING THE THERMOSTAT

To activate the programming mode, press Center (confirm) for 10 seconds. The display will show OFF. You are now in programming mode. To scroll up and down in the menu, use buttons 1 and 3 (left and right) to navigate. To enter the submenu, press Center (confirm). Always confirm your setting by pressing Center (confirm) for 2 seconds. Sto will appear to indicate saved settings.

10. TEMPERATURE SHOWN IN DISPLAY

By default, the temperature shown on the display is the setpoint. This may be altered with parameter 13: "Temperature display". You may calibrate the sensor values ±4 degrees using parameters 10 to 12.

11. STANDBY AND MAIN SCREEN

When the thermostat remains untouched for a while, it will automatically revert to the standby screen. The standby screen will by default show the setpoint temperature. By pressing any button once, you will see the measured temperature. By pressing the left or right (up or down) button one more time, you will change the setpoint.

Menu structure

OFF   Turns the thermostat off

Sensors:

F   Depending on your choice of sensors, the menu will change.
SEn   Select the right Ohm value for your external/floor sensor.
       NTC type (10, 12, 15, 22, 33 or 47kΩ). Default 10kΩ.
CAE   Calibration for external sensor.
CAF   Calibration for floor sensor.
CAr   Calibration for internal sensor.

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br1   The display brightness may be adjusted in this menu.
Con   Activation of inclusion/exclusion mode.
dIF   Hysteresis.
ALo   Setting lowest allowed temperature (limitation).
       (Air sensor)
AHI   Setting highest allowed temperature (limitation).
       (Air sensor)
Flo   Setting lowest allowed temperature (limitation).
       (Floor sensor)
FHI   Setting highest allowed temperature (limitation).
       (Floor sensor)
A2L   Setting lowest allowed temperature (limitation).
       (A2 air sensor)
A2H   Setting highest allowed temperature (limitation).
       (A2 air sensor)
ESC   Escape – exit programming menu.

12. CHOICE OF SENSOR

The thermostat has a range of choices when it comes to sensors. To access the menu, press Center (confirm) for 10 seconds, then press Right (down) once. An A will appear on the display. Then press Center (confirm) again and choose modes while moving up and down with buttons Left or Right:

F   Floor sensor
A   Internal sensor
AF   Internal sensor + Floor sensor
A2   External room sensor
A2F   External room sensor + Floor sensor

When you have chosen sensor mode, press the Center (confirm) button. If you choose F without having a floor sensor connected, Er4 will be shown in the display. If you choose A2 or A2F and there is no external sensor installed, Er5 will be displayed on the screen.

NOTE: Wooden floors require that a floor sensor is connected in order to limit the floor temperature to a maximum of 27°C (in accordance with specifications from most wooden floor manufacturers). When using the thermostat is used in (AF or A2F) the floor limiter FHI is automatically set to 27°C. When using any other sensor type (A, F or A2F) the max temperatures is default 5°C minimum and 40°C maximum.

13. SELECTING THE RIGHT OHM VALUE FOR YOUR EXTERNAL FLOOR SENSOR

The following values are available: NTC type (10, 12, 15, 22, 33 or 47kΩ). Default 10kΩ. Confirm with the Center (confirm) button. You can not combine two types of NTC sensors.

14. CALIBRATION

CAr, CAF, CAE – Parameters 10, 11, 12)

Using Floor / External sensor (F, A2 or A2F-mode)

In this mode, you may adjust the displayed temperature. If the Temperature sensor is not calibrated properly, you can make minor changes to the temperature readout. You can calibrate the measured temperature by up to ±6°C.

You may later adjust the temperature recorded by the sensor using in the menu structure or using parameters.

SENSOR TYPE	CALIBRATION FROM MENU STRUCTURE	PARAMETER
Internal sensor	CAr	10
Floor sensor	CAF	11
External sensor	CAE	12

15. BRIGHTNESS
Use Left and Right (up and down) buttons to adjust the brightness level from 0 to 9. Confirm with the Center (confirm) button.

16. HYSTERESIS (DIF)
In this mode, you can make changes to the thermostat hysteresis. You may change the hysteresis from 0.3℃ up to max 3.0℃. Confirm with the Center (confirm) button. The Default setting is 0.5℃. When using water based heating, the recommended hysteresis is a minimum of 1.0℃. This only applies when using a floor sensor or an external sensor.

17. MIN/MAX TEMPERATURE SETTINGS
Flo   Min Floor temperature
FHI   Max Floor temperature
ALo   Min Air/room temperature
AHI   Max Air/room temperature
       Confirm with Center (confirm)

ESC   Leaving programming mode.
       Confirm with the Center (confirm) button.

18. FAST FUNCTIONS FROM STANDBY / MAIN SCREEN
This is a list of some functions that you may use without entering the menu structure. From standby modus you may do the following:

18.1 DISPLAY ON/OFF (don/doF)
Activate by pressing the Left and Center (up and confirm) buttons for 10 seconds. The display light is temporarily activated if one of the buttons is pushed. In case doF is activated, the screen will be blank (may be used if installed where people are sensitive to the display light). When touching the display, the screen lights up.

18.2 CHILD LOCK (LOC)
By pressing the Left and Right (up and down) buttons for 10 seconds, child lock will be activated, and no changes can be made. Trying to make changes causes the LOC text to appear on the display.
Child lock is deactivated by pressing Left and Right (up and down) buttons for 10 seconds. OPn will appear on the display.

19. ERROR CODES
Err   Adding fail
       See Chapter 6.1 "Add/Remove".
Er1   Internal error
       Contact your local dealer.
Er2   Z-Wave error
       Contact your local dealer.
Er3   Internal error
       Contact your local dealer.
Er4   Floor sensor error
       You have chosen F, AF or A2F sensor mode without having a floor sensor connected, or the sensor may be damaged.
Er5   External sensor error
       You have chosen A2 or A2F, and there are no external sensors installed or the sensor may be damaged.

20. QR-CODE PLACEMENT (DSK)
The QR-Code is needed when including a device using S2 security or SmartStart. The DSK can be found in the QR-Code and is located:
1. On the product.
2. On the Quick Guide manual.
3. On the product box.

21. SECURITY
S2 security enhances Z-Wave Plus with an additional layer of AES 128-bit encryption of the wireless Z-Wave communication to prevent hacking and man-in-middle attacks on the home network. This device supports S2 and has a Z-Wave DSK QR-Code label that may be used when the module is added to the Z-Wave home network. The primary controller will ask for a 5-digit code, which can be found underneath the QR-Code. The primary controller will then ask you to confirm the rest of the code that is contained in the QR-Code.

22. NODE INFORMATION FRAME
The node information frame is the "business card" of a Z-Wave device. It contains information about the device type and its technical features. The add and remove procedure of the device is confirmed by sending out a node information frame. Besides this, it may be necessary for certain network operations to send out a node information frame.

23. ASSOCIATIONS
Z-Wave devices interact with other Z-Wave devices. The relationship between one device controlling another device is called an association. In order to control a subordinate device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called "Association Groups". They are always related to the specific event triggered (e.g., sensor reports). In case the event is triggered, all devices stored in the respective association group will receive a joint wireless command.

23.1 Setting and removing associations
Associations may be assigned and removed via Z-Wave commands. Please refer to your primary controller/Z-Wave gateway for more information.

23.2 Multichannel support
Heatit Z-TRM3 has support for the Multichannel Command Class. This allows the thermostat to be perceived as many devices by the primary controller, where each of the devices has association groups in order to send information to other Z-Wave devices. See the chapter concerning "Association Groups" for more information. Commands sent to each logical device will be interpreted according to the description in the section "Supporting Command Classes".

23.3 No Multichannel support
If the primary controller or the Z-Wave devices to be associated with Heatit Z-TRM3 do not support the Multichannel Command Class (Multichannel encapsulation), only the association groups in the root device are accessible. This device contains 5 association groups.
See Chapter 23 concerning "Association Groups" for more information. The root device is the actual thermostat device.

23.4 Association Groups

With Multichannel support:

THERMOSTAT DEVICE 1	THE MAIN THERMOSTAT DEVICE
Group 1	Lifeline. (Normally used by the Z-Wave Controller) Sends: -Thermostat Setpoint Reports -Thermostat Mode Reports -Thermostat Operating State -Meter Reports Max. nodes in group: 5
Group 2	Send Binary Switch Set commands representing the status of the internal relay. Max. nodes in group: 5
MULTILEVEL SENSOR DEVICE 2	**DEVICE FOR INTERNAL ROOM TEMPERATURE SENSOR**
Group 1	Lifeline Send Multilevel Sensor Reports. Max. nodes in group: 5
Group 2	Send Multilevel Sensor Reports. Max. nodes in group: 5
MULTILEVEL SENSOR DEVICE 3	**DEVICE FOR EXTERNAL ROOM TEMPERATURE SENSOR**
Group 1	Lifeline Send Multilevel Sensor Reports. Max. nodes in group: 5
Group 2	Send Multilevel Sensor Reports. Max. nodes in group: 5
MULTILEVEL SENSOR DEVICE 4	**DEVICE FOR FLOOR SENSOR**
Group 1	Lifeline Send Multilevel Sensor Reports. Max. nodes in group: 5
Group 2	Send Multilevel Sensor Reports. Max. nodes in group: 5

Without Multichannel support:

THERMOSTAT DEVICE 1	THE MAIN THERMOSTAT DEVICE
Group 1	Lifeline. (Normally used by the Z-Wave Controller) Sends: - Device Reset Notifications. - Thermostat Setpoint Reports - Thermostat Mode Reports - Thermostat Operating State - Basic Reports - Meter Reports Max. nodes in group: 5
Group 2	Send Binary Switch Set commands representing the status of the internal relay. Max. nodes in group: 5
Group 3	Internal sensor Send Multilevel Sensor Reports for internal temperature sensor. Max. nodes in group: 5
Group 4	External sensor Send Multilevel Sensor Reports for external room temperature sensor. Max. nodes in group: 5
Group 5	Floor sensor Send Multilevel Sensor Reports for floor sensor. Max. nodes in group: 5

24. CONFIGURATION PARAMETERS

Z-Wave products are supposed to work out of the box after inclusion. Some device configuration may, however, alter the functionality to better serve user needs or unlock further enhanced features. All of the parameters listed in the following table do not feature altering capabilities, advanced or read only flag.

NO #	PARA SIZE (BYTE)	NAME	SHORT DESCRIPTION / COMMENT	VALUE	DESCRIPTION OF VALUE
1	1	Operation mode	Device turned on or off	0	Off
				1	Heating mode
2	2	Sensor mode	Chooses which sensor type to use with thermostat	0	F-mode, floor sensor mode
				1	A-mode, internal room sensor mode (Default)
				2	AF-mode, internal room sensor with floor limitation
				3	A2-mode, external room sensor mode
				4	A2F-mode, external sensor with floor limitation
3	1	Floor sensor type	NTC sensor value	0	10K NTC (Default)
				1	12K NTC
				2	15K NTC
				3	22K NTC
				4	33K NTC
				5	47K NTC
4	1	Temp. control hysteresis (diF)	Adjusts the hysteresis.	3-30	0.3℃ to 3.0℃. Default is 5 (0.5℃)
5	2	Floor min. temp. limit (Flo)	Chooses min. floor temp. before engaging thermostat	50-400	5.0℃ to 40.0℃. Default is 50 (5.0℃)
6	2	Floor max. temp. limit (FHi)	Chooses max. floor temp. before disengaging thermostat	50-400	5.0℃ to 40.0℃. Default is 400 (40.0℃)
7	2	Air min. temp. limit (ALo)	Chooses min. air temp. before engaging thermostat	50-400	5.0℃ to 40.0℃. Default is 50 (5.0℃)
8	2	Air max. temp. limit (AHi)	Chooses max. air temp. before disengaging thermostat	50-400	5.0℃ to 40.0℃. Default is 400 (40.0℃)
9	2	Heating mode setpoint	Defines the thermostat setpoint	50-400	5.0℃ to 40.0℃. Default is 210 (21.0℃)
10	1	Room sensor calibration (A)	Calibrates room sensor to increase temperature accuracy	-60 to 60	-6.0℃ to 6.0℃. Default is 0 (0.0℃). NB! To set a negative value, use 256 and subtract the desired value.
11	1	Floor sensor calibration	Calibrates floor sensor to increase temperature accuracy	-60 to 60	-6.0℃ to 6.0℃. Default is 0 (0.0℃). NB! To set a negative value, use 256 and subtract the desired value.
12	1	External sensor calibration	Calibrates external sensor to increase temperature accuracy	-60 to 60	-6.0℃ to 6.0℃. Default is 0 (0.0℃). NB! To set a negative value, use 256 and subtract the desired value.
13	1	Temp. display	Selects which temperature is shown on the display. Refer to Chapter 11 "Standby and main screen".	0	Display setpoint temperature (Default)
				1	Display measured temperature
14	1	Button brightness-dimmed state	Configures the brightness of the buttons in dimmed state	0-100	0 to 100% (Default 50%)
15	1	Button brightness-active state	Configures the brightness of the buttons in active state	0-100	0 to 100% (Default 100%)

NO #	PARA SIZE (BYTE)	NAME	SHORT DESCRIPTION / COMMENT	VALUE	DESCRIPTION OF VALUE
16	1	Display brightness-dimmed state	Configures the brightness of the display in dimmed state	0-100	0 to 100% (Default 50%)
17	1	Display brightness-active state	Configures the brightness of the display in active state	0-100	0 to 100% (Default 100%)
18	2	Temp. report interval	Time interval between consecutive temp. reports. Temp. reports can also be sent as a result of polling.	30-32767	30 to 32767 seconds. Default is 60 seconds
19	1	Temp. report hysteresis	The temperature report will be sent if there is a difference in temperature value from the previous value reported, defined in this parameter (hysteresis). Temperature reports can also be sent as a result of polling.	1-100	0.1°C to 10.0°C. Default is 10 (1.0°C)
20	2	Meter report interval	Time interval between consecutive meter reports. Meter reports can also be sent as a result of polling.	30-32767	30 to 32767 seconds. Default is 90 seconds
21	1	Meter report data value	Delta value in kWh between consecutive meter reports. Meter reports can also be sent as a result of polling.	0	Reporting meter based on change is disabled
				0-255	A delta value of 0 to 25.5 kWh will result in a metering report. Default is 10 (1.0 kWh)

25. COMMAND CLASS SPECIFICATIONS

The following table lists all Command Classes supported by the Z-Wave device. The device supports both S0, S2 Authenticated security and S2 Unauthenticated security.

	INSECURE INCLUSION	INSECURE ON SECURE INCLUSION	SECURE ON SECURE INCLUSION
Z-Wave Plus Information v2	Yes	Yes	
Association v2	Yes		Yes
Association Group Information v1	Yes		Yes
Multilevel Sensor v5	Yes		Yes
Multichannel Association v3	Yes		Yes
Multichannel v4	Yes		Yes
Transport Service v2	Yes	Yes	
Version v3	Yes		Yes
Manufacturer Specific v2	Yes		Yes
Device Reset Locally v1	Yes		Yes
Power level v1	Yes		Yes
Security v1	Yes	Yes	
Security 2 v1	Yes	Yes	
Supervision v1	Yes	Yes	
Configuration v3	Yes		Yes
Firmware Update v5	Yes		Yes
Thermostat Setpoint v3	Yes		Yes
Thermostat Mode v3	Yes		Yes
Thermostat Operating State v1	Yes		Yes
Basic v2	Yes		Yes
Meter v3	Yes		Yes

Besides the mandatory command classes, Heatit Z-TRM3 has support for the following command classes:

Basic command class

A Basic command to the root endpoint or endpoint 1 will change the Thermostat Mode. Uses the following values:

0x00 = OFF (thermostat regulation is deactivated)

0x01 = Heating Mode (thermostat regulation is active)

Binary Switch Command Class

Sends Binary Switch commands to other devices when the internal relay is switched. It used to control other slave relay devices. Uses the following values:

0x00 = OFF

0xFF = ON

Thermostat Setpoint Command Class

When a Thermostat Setpoint Set command is received by the root device, it sets the chosen setpoint for heating mode.

Thermostat Mode

It is possible to change the operating mode of the thermostat by sending a Thermostat Mode Set command. The accessible operating modes are:

0x00 = OFF (thermostat regulation is deactivated)

0x01= Heating Mode (thermostat regulation is active)

Thermostat Operating State

The thermostat reports the operating state of the internal relay using this command class.

0x00 = Idle (relay is turned OFF)

0x01= Heating (relay is turned ON)

Meter Command Class

The thermostat supports Meter Command Class Get, and the thermostat will only respond on supported electric meter scales: kWh (accumulated), Watt (instant) and Volt (instant). The thermostat will report when asked:

Rate import: Import (0x01)

Meter type: Electric meter (0x01)

Precision: 1 decimal (0x01)

PRECISION (VALUE)	SCALE SUPPORTED (VALUE)	SIZE
1 decimal (0x01)	kWh (0x01)	4
2 decimals (0x01)	W (0x02)	4
1 decimal	V (0x04)	2

THERMOSTAT DEVICE 1

Supported Command Classes Association (version 2)

Z-Wave Plus Information (version 2)

Association (version 2)

Association Group Information (version 3)

Multichannel Association (version 3)

Supervision (version 1)

Security (version 1)

Security 2 (version 1)

Thermostat Setpoint (version 3)

Thermostat Mode (version 3)

Thermostat Operating State (version 1)

Controlled Command Classes

Switch Binary (version 1)

Meter (version 3)

MULTILEVEL SENSOR DEVICE 2
Supported Command Classes

Z-Wave Plus Information (version 2)

Association (version 2)

Association Group Information (version 3)

Multichannel Association (version 3)

Supervision (version 1)

Security (version 1)

Security 2 (version 1)

Multilevel Sensor (version 5)

Controlled Command Classes

Multilevel Sensor (version 5)

MULTILEVEL SENSOR DEVICE 3
Supported Command Classes

Z-Wave Plus Information (version 2)

Association (version 2)

Association Group Information (version 3)

Multichannel Association (version 3)

Supervision (version 1)

Security (version 1)

Security 2 (version 1)

Multilevel Sensor (version 5)

Controlled Command Classes

Multilevel Sensor (version 5)

MULTILEVEL SENSOR DEVICE 4
Supported Command Classes

Z-Wave Plus Information (version 2)

Association (version 2)

Association Group Information (version 3)

Multichannel Association (version 3)

Supervision (version 1)

Security (version 1)

Security 2 (version 1)

Multilevel Sensor (version 5)

Controlled Command Classes

Multilevel Sensor (version 5)

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C O N T R O L S

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PRODUCT INFO Heatit Z-TRM3

CLIMATE C

FUNCTIONS

- Floor sensor
- Internal room sensor
- External room sensor (wired)
- Temperature limiter
- SmartStart
- Weekly program/setback via gateway)
- Temperature shown in gateway
- Supports encryption mode: S0, S2 Authenticated Class, S2 Unauthenticated Class

- Firmware update (OTA)
- Power metering
- Relay status LED
- Single pole switch
- Lock mode/child lock
- Calibration
- 5 associations

This product is a security-enabled Z-Wave Plus product with encryption. The product must be used with a security-enabled Z-Wave Controller in order to fully utilize the product.

TECHNICAL DATA

Protocol	Z-Wave
Chip	Z-Wave 500 chip
Rated voltage	230VAC 50/60Hz
Max load	3600W (resistive loads only) Recommends contactor for loads higher than 13A
Max current	16A
Power consumption	<2.0W
Ambient temperature	2°C to 40°C (during operation)
Temperature range	5°C to 40°C
Hysteresis	0.3°C to 3.0°C (default 0.5°C)
Compatible with NTC sensors with values	10, 12, 15, 22, 33 and 47 kΩ @ 25°C
IP Code	IP 21

Approvals   Z-Wave Plus, CE

EN 60730-1, EN 60730-2-9, EMC 2014/30/EU, RoHS 2011/65/EU, LVD 2014/35/EU

Approved for use in bathrooms.

TERMINAL

Use 1.5mm² or 2.5mm² according to load.

MAINTENANCE

The product is maintenance-free, but must not be covered.

ART. NO.	PRODUCT	COLOR	FREQUENCY
54 305 99	Heatit Z-TRM3 thermostat	White RAL9003	EU 868.4MHz
54 305 98	Heatit Z-TRM3 thermostat	Black RAL 9011	EU 868.4MHz
54 304 46	Plastic kit for Heatit (front and frame)	Black RAL 9011	
99 305 60	Heatit Z-TRM3 thermostat	White RAL 9003	RU 869.0MHz
99 305 51	Heatit Z-TRM3 thermostat	White RAL 9003	AUS 921.4MHz

The product is also available in other Z-Wave frequency versions on request.

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