

AUTOMATIC SOURCE CHANGEOVER WITH CURRENT LIMITER (ACCL)

Features:

- While monitoring the Generator supply, Allows only limited load and functions as load limiter as per desired current.
- Current sealing while monitoring the DG and EB will be factory-Set.(Field selectable Model-Optional)
- Whenever the load current exceeds the preset limit, power is automatically switched-off and resets after 9sec and trips again if the overload exists, this cycle is (3Sec ON & 6Sec OFF) is repeated every nine seconds. If overloading on DG persists the ACCL enters lock out mode after 5 ON & OFF cycles. The unit can be reset manually by reset switch. However tailor made units i.e field adaptable as per customer requirement can be provided as it is a microcontroller based.
- Display of each Phase Voltage, Current and Frequency in Three Phase ACCL by 2 line 16 character LCD.
- Over Voltage and Under Voltage cut-off limit for both EB and DG and is optional
- On the resumption of the EB main supply, ACCL changes over from DG to EB and allows the full load current.

Benefits:

- Microcontroller based, hence precise and accurate
- It measures load current – true RMS
- Over Voltage and Under Voltage cut-off for EB and DG(optional)
- Significant saving on wall space and wiring.
- In Single Phase ACCL during the event of change over from DG to EB the neutral is first isolated, then the phase is isolated.
- Tropicalized and Rugged design.
- Three Phase AUTOMATIC SOURCE CHANGEOVER WITH CURRENT LIMITER (ACCL) are enclosed in aesthetically made powder coated sheet metal enclosures.
- Single Phase AUTOMATIC SOURCE CHANGEOVER WITH CURRENT LIMITER (ACCL) are enclosed in ABS grade Thermo plastic enclosure.
- LED indication of all operational status.
- Two line 16 Character LCD with Back-lit, Displays Voltage, Current and Frequency (Three Phase). Mechanical inter-lock between 4 pole contactors in three phase models.
- ACCL are provided with different ON-TIME delay, so that generators are not loaded suddenly. This feature enhances the life of the generators and switchgear. Teflon wires having very high insulations are used for the internal wiring.
- Wiring connections-using insulated feed trough terminal blocks for Three Phase models.
- External control ACCL Logic for Currents greater than 63 Amps can be Tailored.

DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL)

For Single Phase and Three Phase Application

SPECIFICATIONS	Single Phase ACCL	Three Phase ACCL
EB Input	240V AC, 50 Hz	415V AC, 50 Hz, 3Ph 4W
DG Input	240V AC, 50 Hz	415V AC, 50 Hz, 3Ph 4W
LCD Display	-	2 line 16 Character back-lit LCD
EB LED ON	Load on EB	Load on EB
DG LED ON	Load on DG	Load on DG
EB LED blinks(Optional)	Over Load on EB	-
DG LED blinks(Optional)	Over Load on DG	-

Trip LED ON	Over Load	Over Load
Trip LED Blinks	Lock Out Mode	-
Relay Contact Rating	240V AC, 30A Max Making (Resistive)	-
Reset	Manually Through RESET Switch on the unit	Manually Through RESET Switch on the Unit

Specifications:

SINGLE PHASE MODEL	EB MAXIMUM LOAD CURRENT	DG MAXIMUM LOAD CURRENT	MOUNTING	DIMENSION (mm)
ACCL 1 PHASE EB 1PHASE EG	30 AMPS	0.5-20 AMPS USER DEFINED FACTORY SET (in steps of 0.5 Amps)	DIN	80 X 94 X 76 (Existing) 80 X 95 X 75 (New)

THREE PHASE MODELS	EB LOAD MAXIMUM PER PHASE AC1 DUTY CONTACTOR RATING	DG LOAD MAXIMUM PER PHASE	MOUNTING	DIMENSION (mm)
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	20 AMPS / PHASE	0-20 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	25 AMPS / PHASE	0-25 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	32 AMPS / PHASE	0-32 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	40 AMPS / PHASE	0-40 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	63 AMPS / PHASE	0-63 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	280X175X193
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	20 AMPS / PHASE	0-20 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	25 AMPS / PHASE	0-25 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	32 AMPS / PHASE	0-32 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	40 AMPS / PHASE	0-40 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	153X137X200
ACCL 3 PHASE EB 4 WIRE 3 PHASE DG 4 WIRE	63 AMPS / PHASE	0-63 AMPS/PHASE USER DEFINED FACTORY SET	SURFACE	280X175X193

All the 3 phase models displays the Phase Voltages, Phase Currents and Frequency in EB and DG through LCD and trip indication through LED.

Optional:

- 1) In ACCL 3 phase 4 wire EB and single phase DG ACCL can be tailored to the customer specification like current setting on the ACCL DG as arithmetic/ cumulative sum of currents.
- 2) The 3 Phase ACCL with field selectable 50% - 100% of load Current on DG is optional.
- 3) Only ACCL logic can supplied for current rating 70 Amps and above i.e. without contactors, Bus Bars and CT's
- 4) EB Current limiting is provided as per the customer requirement (as an optional feature).

ACCL ORDERING INFORMATION:

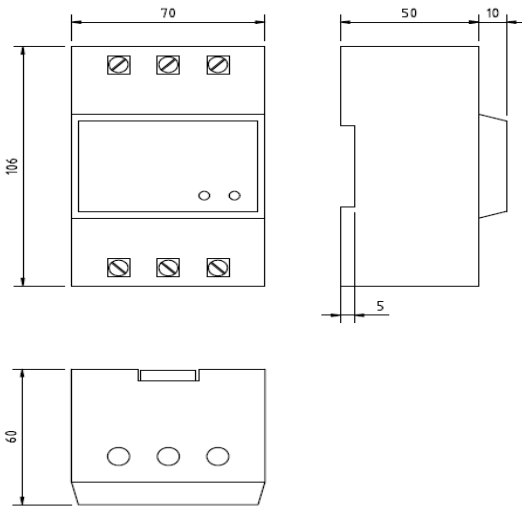
- Specify:**
- 1) Single Phase/ Three phase
 - 2) Current rating on EB & DG
 - 3) Individual Phase Current/Arithmetic sum of phase currents(3 Ph. ACCL)
 - 4) Over/Under Voltage Limits(Optional)
 - 5) Duration and Number of ON/OFF Cycles
- Current setting cannot be Greater than the Contactor rating

PROK DV'S DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL)

SPECIFICATIONS	SINGLE PHASE ACCL	THREE PHASE ACCL
Technology	Microprocessor Based. Hence precise measurement	Microprocessor Based. Hence precise measurement
Frequency	50Hz	50Hz
Display	LED indication status	2 Line 16 character LCD display LED Indications for DG Presence, EB Display of Over loaded phase Display of UV trip & OV trip
Trip Time and OFF time	Trip time ON - 3Sec OFF Time- 6Sec Five ON &OFF Cycles (other timings and cycles can be provided as per the customer requirement)	Trip time On- 3Sec OFF Time - 6Sec Five ON &OFF Cycles (other timings and cycles can be provided as per the customer requirement)
Out Put Contact Type	Electro mechanical Relay	4 Pole Contactors
Protection for Change Over	Break Neutral before breaking the Phase	4 Pole Contactors
EB Max. Load Current	30A	20Amp, 25Amp, 32Amp, 40Amp and 63Amp. Above 63Amp only logic shall be provided.
DG Current Range (Factory Set)	0.5A to 20A Factory Set In steps of 0.5 Amp	0-20A, 0-25A, 0-32A, 0-40A, and 0-63A Depending on the Model in steps of 0.5Amp
Under and Over Voltage protection	UV 160V-200V Factory Set OV 250V-280V Factory set (Can be provided as an optional feature)	UV 160V-200V Factory Set OV 250V-280V Factory set (Can be provided as an optional feature)
Models	1 phase EB & 1phase DG	3Phase EB & 3Phase DG 3Phase EB & 1 Phase DG

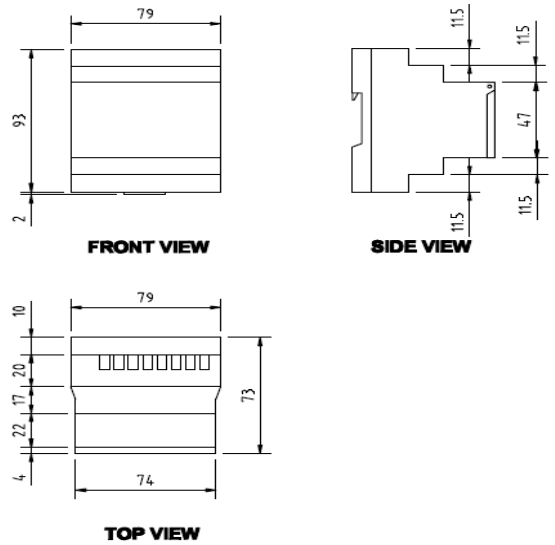
		(Option of summation current also available)
Product guarantee	For 18 Months	For 18 Months
EB Current limiting	EB Current Limiting is available as per Clients request(As optional)	EB Current limiting is available as per Client request(As optional)
Enclosure	ABS Grade thermo plastic	Powder coated sheet metal enclosure
Mounting	DIN	SURFACE
Dimensions(mm)	70 X 105 X 60 (Existing) 80 X 95 X 75 (New)	153 X 137 X 200 (Up to 40A) 280 X 175 X 193(Up to 63A)

MECHANICAL DIMENSION OF SINGLE PHASE DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL)



**NOTE: ALL DIMENSIONS ARE IN MM
TOLERANCE:- ± 1MM
(Existing Model)**

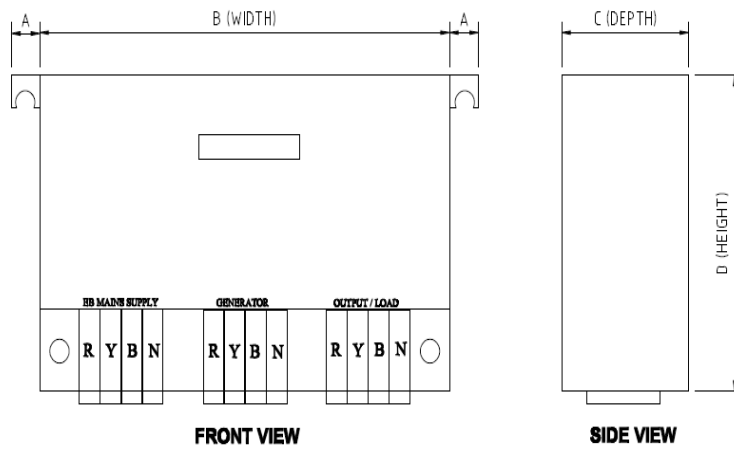
MECHANICAL DIMENSION OF SINGLE PHASE DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL)



**NOTE: ALL DIMENSIONS ARE IN MM
TOLERANCE:- ± 1MM**

(New Model)

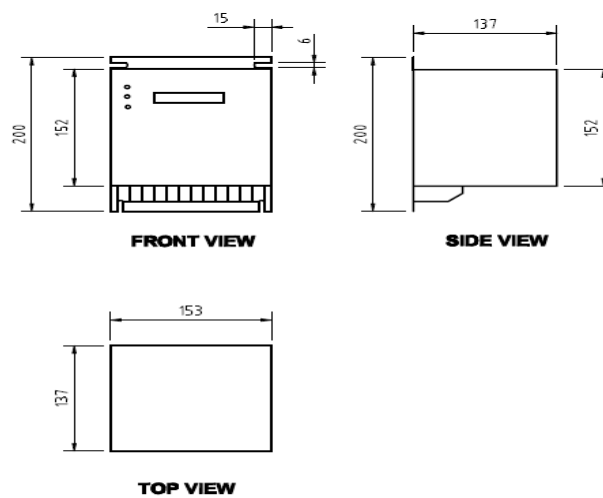
MECHANICAL DIMENSION OF THREE PHASE DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL) – (63Amps)



**NOTE: ALL DIMENSIONS ARE IN MM
TOLERANCE:- ± 1MM**

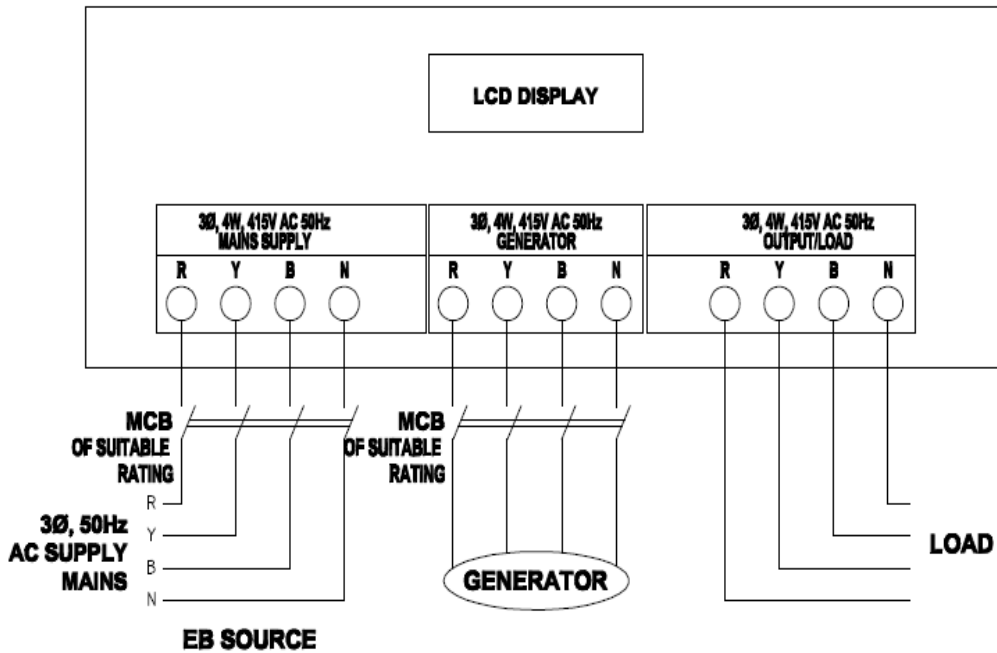
DIMENSIONS ARE IN MM	A	B	C	D
FRAME (63Amps)	13	280	175	193

MECHANICAL DIMENSION OF THREE PHASE DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL) – (40Amps)

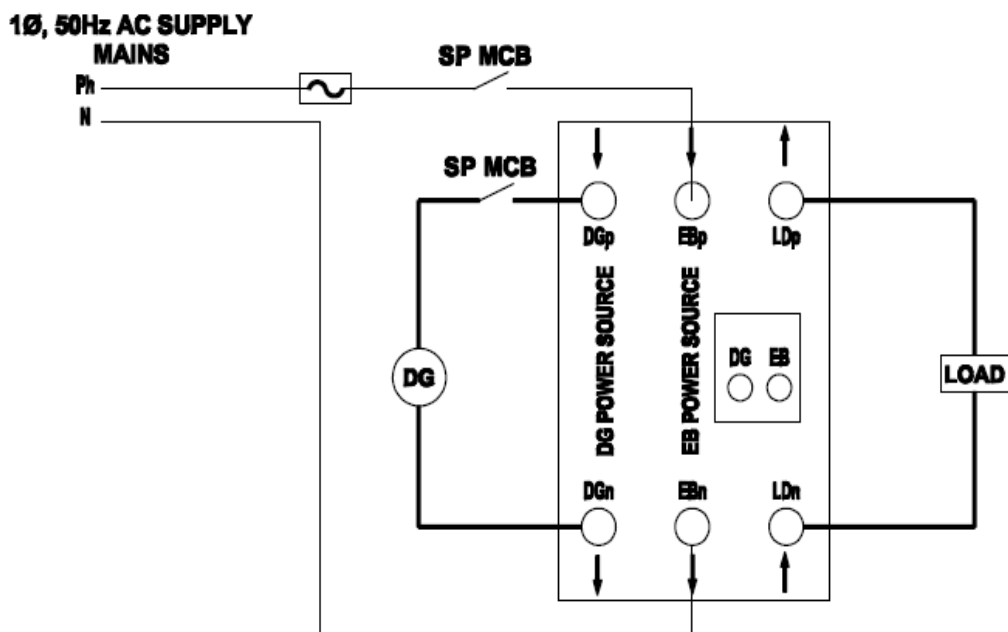


**NOTE: ALL DIMENSIONS ARE IN MM
TOLERANCE:- ± 1MM**

WIRING DIAGRAM FOR THREE PHASE DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL)



WIRING DIAGRAM FOR SINGLE PHASE DIGITAL MICROCONTROLLER BASED AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER (ACCL)



**WIRING DIAGRAM FOR THREE PHASE AUTOMATIC SOURCE CHANGEOVER CUM / WITH CURRENT LIMITER
ACCL- LOGIC**

