

# AUTOMATIC CHANGEOVER WITH CURRENT LIMITER

Current | Voltage | Frequency | Energy

FOR A SEAMLESS, CHANGEOVER BETWEEN POWER SOURCES!



## Features (Three Phase) :

- Micro controller based automatic source changeover with neutral isolation.
- Intelligent re-connection once trip occurs, either due to over voltage or over load.
- Energy, Current, Voltage measurement for DG & Current measurement for EB. Optional EB Energy and Voltage measurement for 3 phase.
- Intelligent tripping: Inverse curve (Higher the overload faster the trip).
- Conformity standard as per IEC 60947-6-1
- Manual reset provision when in sleep mode for restoring power supply Or through the mobile app when network is available.
- Intelligent changeover with R phase or any one phase failure (Manufacturing option).
- Under/Over voltage and single phase missing protection for EB and DG(M300)
- Programmable threshold setting for both sources independently.
- DG delay programmable for each ACCL to avoid loading the generator at a time.
- Potential free contact for connecting power load only in EB (single phase / relay version) optional(M 100R).
- Automatic trip if sum of power circuit and lighting circuit is >32A (single phase / relay version) optional.
- Individual phase overload monitoring (Any Phase > set current, it trips).
- DG Phase selection - Programmable

## Unique Features :

- Intelligent Overload tripping with AC1 to AC3 behavior.
- Wide range of operational voltage: (180 - 260) VAC
- Display of overload information for both EB and DG, along with phase indication.
- Wiring simplicity for lighting and power with common neutral in iACCL M100R Single Phase.
- Installation is done as DIN rail for single phase and surface mountable for 3 phase (Optional DIN rail for 3 phase up to 40A).
- Eco friendly thermoplastic and fire retardant enclosure.
- More than 20000 operations.
- Reason for trip is displayed.
- Optional Prepaid feature only for DG
- RS 485 communication.(Optional)
- Protection against neutral current flow beyond threshold.
- EB measurement VAF for M300

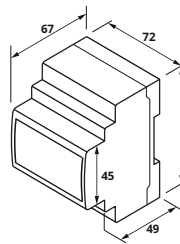
## Features (Single Phase) :

- Under and Over Voltage protection when load is running on DG
- Protect DG with Staggered Delay and Inverse curve Protection
- Reduced wiring complexity and installation time- Terminal 16mm capacity
- Programmable DG current limiting features on site through configuration tool
- EB/DG Input source Interchangeability
- Field configuration through CFG 400 for iACCL 400/400C

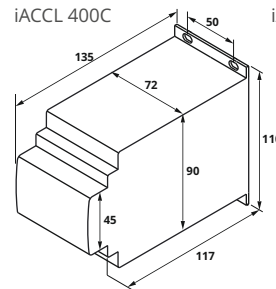
## Mechanical Specification :

### Single Phase

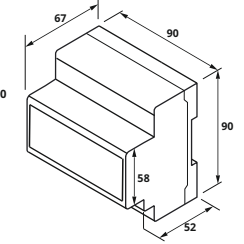
iACCL M400/400



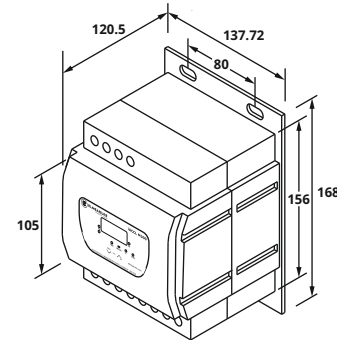
iACCL 400C



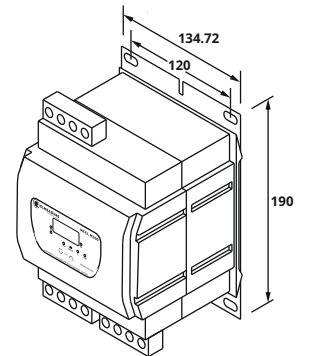
iACCL M100R



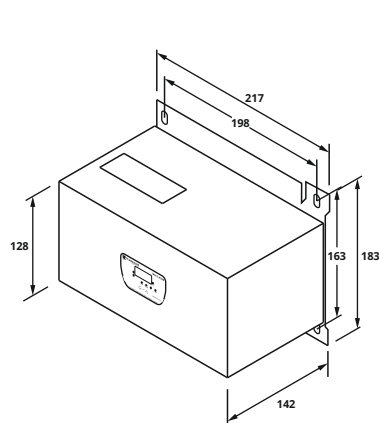
iACCL M300 (32A-40A) | M330 (40A)



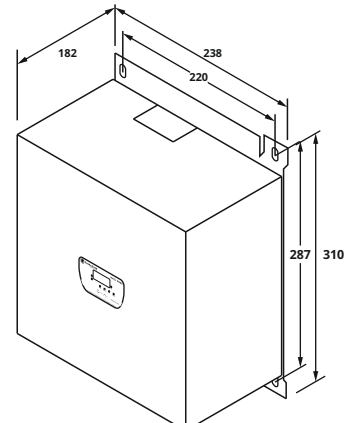
iACCL M300 (63A)



iACCL M300 (80A)



iACCL M300 (100A)



## Technical Specification:



	400	400C	M400	M100	M300	M300	M300	M330
<b>ELECTRICAL CHARACTERISTICS</b>								
Rated Current	25/32A				40 63A	80A	100 125A	40A
No. of Poles	1P+N			1P+N+1 Power Load	3P+N	3P+N	3P+N	EB:3P+N DG:1P+N
Rated Operating Voltage	240VAC				415/240VAC	415/240VAC	415/240VAC	415/240VAC
Rated Frequency	50Hz				50Hz	50Hz	50Hz	50Hz
Utilization Category AC1	25/32A				40 63A	80A	100 125A	40A
Utilization Category AC3	25/32A				32 40A	63A	80A	32 40A
Ingress Protection:	IP 20 & Double Insulation ( As per IEC 61010-1)							
Accuracy	Class 1							
<b>PROGRAMMING FEATURES</b>								
Energy Selection	Wh /VAh							
DG under voltage	170-210VAC				165-210VAC			
DG over voltage	240-270VAC							
DG Maximum Current Limit	25/32A				40 63A	80A	100 125A	40A
EB Maximum Current Limit					40 63A	80A	100 125A	40A
DG Start time	1sec-30sec							
Cycle time	6sec-150sec							
No. of Cycles	5 to 10							
DG Selection	NA				DG Output selection			
<b>METERING PARAMETERS</b>								
EB Source	NA				Current			
DG Source	Current, Voltage, PF, W, VA, Wh/VAh							
Trip Reset	Reset Key				Reset Key	Reset Key	Reset Key	Reset Key
INDICATION	EB Source, DG Source, Trip, Minus, Communication and Reason for Trip							
<b>COMMUNICATION</b>								
Device ID & Parity	1 to 247 & Odd, Even, None (Preferred Even)							
Protocol & Interface	Modbus. RTU & RS 485							
Baud rate	4800 bps to 19200 bps (Preferred 9600 bps)							
Isolation	2000 volts AC isolation for 1 minute between communication & other circuits							
<b>DISPLAY</b>								
Display type	LED 1 Row							
Instantaneous Digits	4							
Integrated Digits	4							
<b>FAULT TRIPPING</b>								
EB Source	Over Current, Phase Missing							
DG Source	Over Current, Under / Over Voltage, Phase Missing							
<b>MECHANICAL CHARACTERISTICS</b>								
Mounting (Vertical)	Din Rail			Surface Mounting			Surface Mounting	
Outline Dimension in HxWxD mm	90x72x67	110x72 x135 mm	90x72x67	90x90x67	193x144 x137 mm	186x217 x142 mm	240x310 x182 mm	193x144 x137 mm
Weight in kg	280 grams	700 grams	300 grams	350 grams	2.1 kg	4.5 kg	7 kg	2.1 kg
Torque	1 N-m				2 N-m	2 N-m	2.5 N-m	2 N-m
Wire gauge	11 AWG				6 AWG	4 AWG	1 AWG	6 AWG
<b>STANDARDS</b>								
Compliance	IEC 60947-6-1							
<b>USE ENVIRONMENT CHARACTERISTICS</b>								
Temperature	Ambient: -5 to +55° C, Storage: -25 to +75° C, Operating: -10 to +55° C, Operating Humidity: 5 to 85% RH							
Environmental	Class B							
Pollution degree	2							