



AUTOMATIC CHANGEOVER CURRENT LIMITER

Automatic Changeover Current Limiter (For Three Phase)

Automatic Changeover Current Limiter (For Single Phase)



AUTOMATIC CHANGEOVER CURRENT LIMITER (For Three Phase)

- True RMS measurement
- Wide operating supply voltage range (180V to 265V AC)
- Seamless transfer of Load to healthy power source (EB or DG)
- Protection of Load against UV, OV and Over Load current Faults for both EB and DG
- Energy Measurement of both EB and DG seperately along with Load hours
Class 1 Accuracy
- Display run parameters of active source like Phase wise line voltage, Phase voltage, phase current, Power factor, Active Power, Energy and load hours .
- User programmable parameters such as DG ON time, UV / OV setting, number of warning cycles , Warning cycle OFF Time, SPP feature , Genset Supply (1Ph or 3Ph) etc through User configurable password.
- Settable DG ON time to safeguard DG from abrupt overloading
- Simple and convinient programming using 4 keys with edit and view facility separately.
- With display and energy meter



Ordering Information

Mains Rating	Genset Rating	Description
32A	32A	240 VAC, 3P4W, 50 Hz, plastic enclosure
40A	32A	240 VAC, 3P4W, 50 Hz , plastic enclosure
40A	40A	240 VAC, 3P4W, 50 Hz , plastic enclosure
50A	50A	240 VAC, 3P4W, 50 Hz , metal enclosure
63A	50A	240 VAC, 3P4W, 50 Hz, metal enclosure
63A	63A	240 VAC, 3P4W, 50 Hz , metal enclosure
80A	80A	240 VAC, 3P4W, 50 Hz , metal enclosure
125A	125A	240 VAC, 3P4W, 50 Hz , metal enclosure



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Cat. No.	
Parameters	
Supply Voltage (Φ)	180V – 265V AC
Frequency	47Hz to 53Hz
Power Consumption (Max.)	3VA
Number of poles	3 P + N
Utilization category	AC 1 Resistive & AC3 Motor duty as per IEC 60947-4-1
Duty	Continuous
Accuracy	Class 1
DG to EB transfer time	4 Sec
Mains to Load transfer time	4 Sec
Power Source Priority	Mains (EB)
User Password	Settable from 0000 to 9999. Default-Disable
DG ON time	5sec – 30sec settable. Default – 9sec
Over load Warning cycles	5 to 10 settable. Default – 10 cycles
Warning cycle OFF time	6sec – 150sec settable. Default-6sec (ON Time : 5sec fixed)
Under Voltage (UV)	180V to 210V settable. Default – Disable (In default condition, Device trips if voltage is less than 160V)
Over Voltage (OV)	250V to 280V settable. Default – Disable (In default condition, Device trips if voltage is less than 280V)
DG output supply	TPN or SPN settable. Default - TPN
Single Phasing Protection	Enable / Disable Default - Enable RED LED : Relay Output ON
Current Tripping Method	Max / Average Default - Average
Display type	7 segment 6 Digit Red LED Display
Run Parameters displayed for Active Source (EB or DG)	Each Phase : Current, Voltage, Active Each Phase : Current, Voltage, Active Average : Phase Current, Phase Voltage, Line Voltage, Power Factor Total active Power, Units (KWH), Load Hours and Supply frequency.
Fault protection for both EB and DG	Over Current, Under Voltage, Over Voltage, Phase loss, Voltage error.
Trip Time	4 Sec
Hysteresis	8 V+/- -5 for UV/OV fault
Over Load Lock-out	If over load condition is not recovered within set no. of warning cycles then device enters lock out condition.
Lock-out reset	Device can be manually reset by pressing RESET/OK key provided on front facia.
Trip accuracy	+/-5V for UV/OV faults
Timing accuracy	+/-5%
Operating Temperature	-5° to +55°C
Storage Temperature	-10° to +60°C
Humidity	95% RH (Non-condensing)
Pollution Degree	2
Certification	CE

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EMI / EMC Test

Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surge	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR - 11
Radiated Emission	CISPR - 11

Safety test

a) Test Voltage between I/P and O/P	IEC 60947-5-1
b) Impulse Voltage between I/P and O/P	IEC 60947-5-1
c) Single Fault	IEC 61010-01
d) Insulation Resistance	UI508 > 50K Ohm
e) Leakage Current	UI508 < 3mA

Environmental Testing

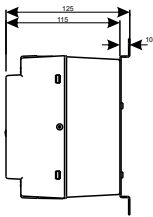
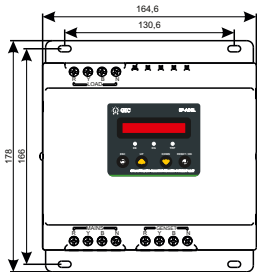
Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6

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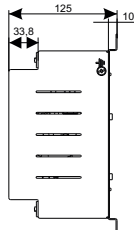
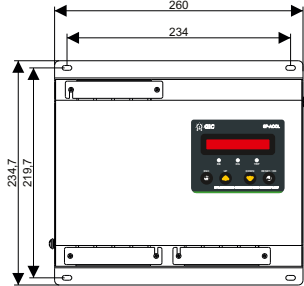


MOUNTING DIMENSION (mm)

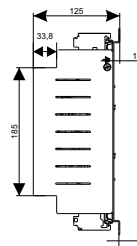
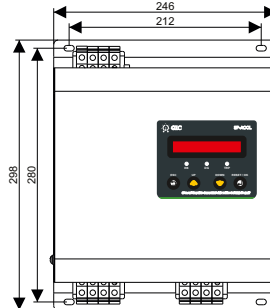
32A/40A



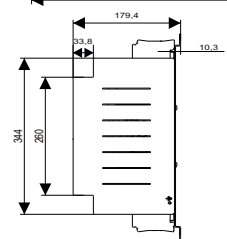
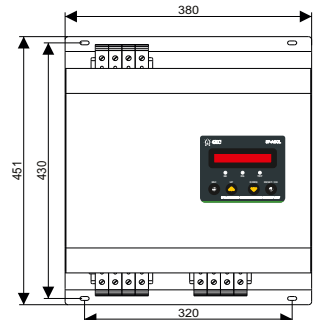
50A/63A



80A

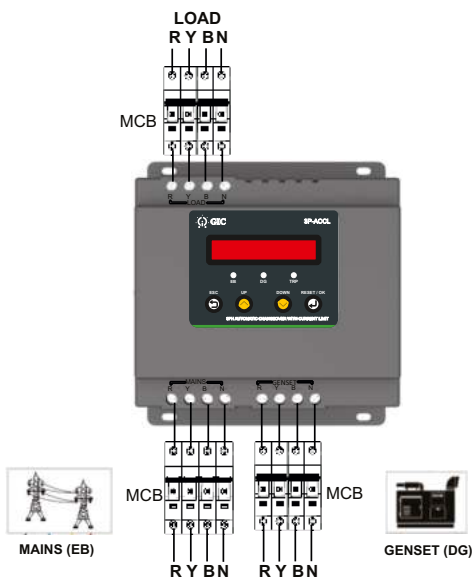


125A

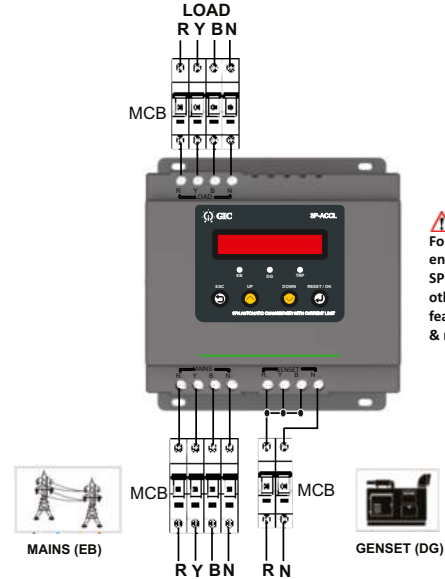


CONNECTION DIAGRAM

FOR DG SUPPLY THREE PHASE



FOR DG SUPPLY SINGLE PHASE



CAUTION:
For single phase Genset, please ensure that it is configured as SPN in DG parameter Menu else otherwise overload protection feature will not work as intended & may cause damage as well.

TERMINAL TORQUE & CAPACITY

32A/40A

	1.2 N.m(10.6Lb.in), screw M4 1 x 1....10mm
AWG	1 x 16 to 6

80A

	2.0 N.m(17.7Lb.in), screw M5 1 x 4....25mm
AWG	1 x 12 to 4

50A/63A

	1.2 N.m(10.6Lb.in), screw M4 1 x 4....16mm
AWG	1 x 10 to 5

125A

	3.0 N.m(38Lb.in), screw M6 1 x 10....70mm
AWG	1 x 8 to 2/0

AUTOMATIC CHANGEOVER CURRENT LIMITER (For Single Phase)

- Wide operating supply voltage range (180V to 265V AC)
- Seamless transfer of Load to healthy power source (EB or DG)
- Protection of Load against Over Load current for DG
- LED indication for EB, DG & Over load
- Over Load warning cycles before final lockout
- Provision of reset key to resume operation after over load recovery




Ordering Information

Mains Rating	Genset Rating	Description
30A	1A	240 VAC, Single phase, 50 Hz
30A	1.5A	240 VAC, Single phase, 50 Hz
30A	2.5A	240 VAC, Single phase, 50 Hz
30A	3A	240 VAC, Single phase, 50 Hz
30A	4A	240 VAC, Single phase, 50 Hz
30A	5A	240 VAC, Single phase, 50 Hz
30A	6A	240 VAC, Single phase, 50 Hz
30A	9A	240 VAC, Single phase, 50 Hz
30A	12A	240 VAC, Single phase, 50 Hz
30A	15A	240 VAC, Single phase, 50 Hz
30A	20A	240 VAC, Single phase, 50 Hz
30A	30A	240 VAC, Single phase, 50 Hz

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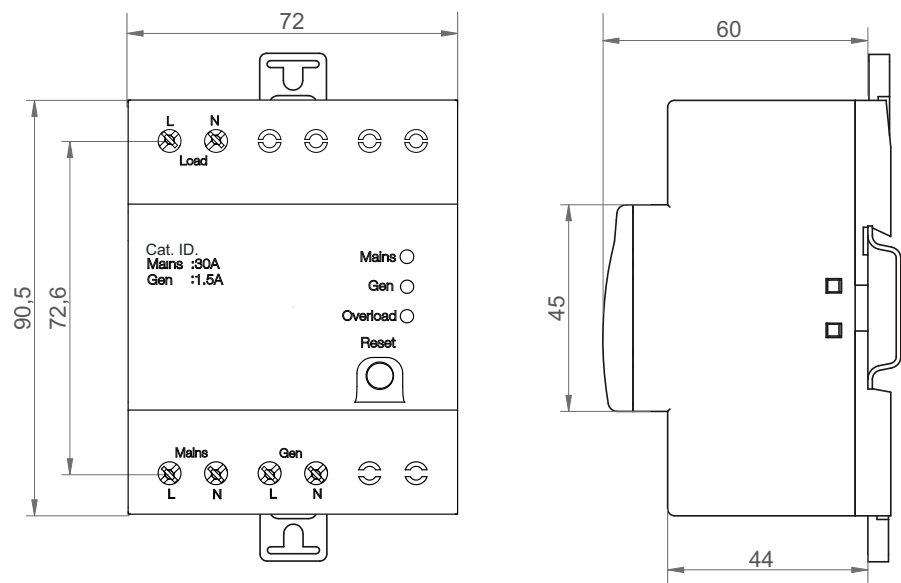


Cat. No.	
Parameters	
Supply Voltage (Φ)	240 VAC
Supply Tolerance	-25% to +10% off Un
Supply Frequency	50 Hz (± 3 Hz)
Power Consumption	0.4 VA @ 240 VAC (Mains) 10 VA @ 240 VAC (Genset)
Functional Characteristics:	
Number of Poles	1P - N
Current Monitoring	On Genset only
Mains Current Rating	30 A Max
Genset Current Rating	1 A to 20 A
Tripping accuracy	+ 5 % of trip current.
Timing accuracy	± 5 %
Duty	Un-interrupted
Changeover delays	
Mains to Genset	4 sec typical (If Genset is already ON)
Mains to Genset	10-12 sec typical (If Genset is turns ON)
Genset to Mains	4 seconds
Overload warning	8 s OFF (To recover) & 5 s ON (To trip)
Contact Characteristics	
Electrical Life	6,000 Operations
Contact Rating	30A @ 240 VAC (Res)
Utilization Category	AC-21A (IEC 60947-3) / AC 31B (IEC 60947-6)
Environmental Characteristics	
Operating Temperature	5 to 50 °c
Storage Temperature	10 to 60 °c
Operating Humidity	5 to 85 % RH
Pollution Degree	2
IP Protection	IP 20:Terminal/Enclosure IP 40:Front Facial
Mounting	Base/DIN (35 x 7.5 mm)
Operating Position	Horizontal / Vertical
Weight (Un-Packed)	300 gm
Certification	CE  RoHS Compliant

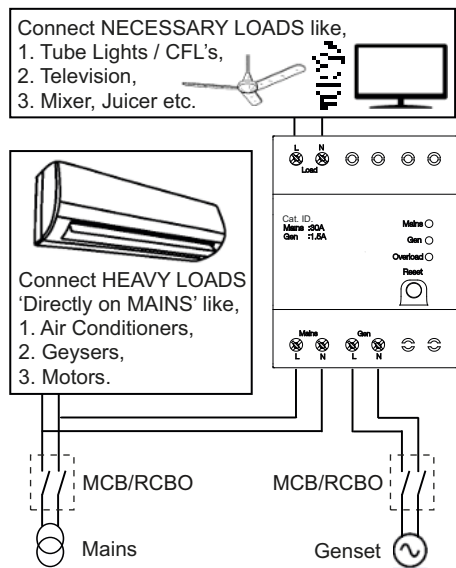
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MOUNTING DIMENSION (mm)





CONNECTION DIAGRAM



TERMINAL TORQUE & CAPACITY

 Ø 3.5...3.8 mm	1.1 Nm (10 Lb.in) Terminal Screw - M3.5
	1 x 1.....10 mm Solid wire
AWG	1 x 18 to 7

 Ø 3.5...3.8 mm	1.1 Nm (10 Lb.in) Terminal Screw - M3.5
	1 x 1.....6 mm Multi-Strand
AWG	1 x 18 to 9