



SPECIFICATIONS

DISPLAY

- Liquid crystal display with backlight
- 4 line, 4 digits per line to show electrical Parameters
- 5th line, 8 digits to show energy
- Bar graph for current indication as a % of CT rating

LCD INDICATIONS

- I** - Integration of energy
- PRG** - Unit is in configuration menu
- ↔** - Communication in progress
- MAX DMD** - Maximum & Minimum Demand of Power

WIRING INPUT

- 3.Ø - 4 wire, 1.Ø - 2 wire

RATED INPUT VOLTAGE

- 100 TO 240Vac (L-N); 173-415Vac (L-L)

FREQUENCY RANGE

- 45-65Hz

CT PRIMARY

- 5A to 10000A (Programmable for any value)

CT SECONDARY

- 330mV

PT PRIMARY

- 100 to 500KVac (Programmable for any value)

PT SECONDARY

- 100 to 500Vac (Programmable for any value)

DISPLAY UPDATE TIME

- 1 Second for parameters

DISPLAY SCROLLING

- Automatic / Manual

AUXILIARY

- Self supplied

TEMPERATURE

- Operating : 0 to 50°C
- Storage : -20 to 75°C

HUMIDITY

- 85% non-condensing

MOUNTING

- Panel mounting, front panel to IP65

WEIGHT

- 230gms

OUTPUT

- Pulsed Output : Voltage range External 24VDC max
- Current capacity : 100mA

INSTALLATION CATEGORY

- Category III

SERIAL COMMUNICATION

Interface Standard and protocol	RS485 & Modbus RTU
Communication address	1 to 255
Transmission Mode	Half duplex
Data types	Float and Integer
Transmission distance	500 Meter maximum
Transmission speed	300, 600, 1200, 2400, 4800 9600 19200 (bps)
Parity	None, Odd, Even
Stop bits	1 or 2
Response time	100mS

ACCURACY

Measurement	Accuracy
Voltage V _{L-N}	±0.5% of Full Scale
Voltage V _{L-L}	±0.5% of Full Scale
Current	±0.5% of Full Scale
Frequency	±0.1% of Full Scale For L-N Voltage >20V For L-L Voltage >35V
Active Power	Class 0.5
Reactive Power	Class 1.0
Apparent Power	Class 1.0
Power Factor	±0.1%
Active Energy	Class 1.0
Reactive Energy	Class 2.0
Apparent Energy	Class 2.0
MAX / Min Active Power	1%
MAX / MIN Reactive Power	1%
MAX Apparent Power	1%

RESOLUTION

PT Ratio x CT Ratio	KWh / KVAh / KVArh	Pulse
<15	0.01K	0.01K
<150	0.1K	0.1K
<1500	1K	1K
<15000	0.01M	0.01M
<150000	0.1M	0.1M
≥1500000	1M	1M

- NOTE:
- 1) For Voltage, Current, Power, resolution is automatically adjusted.
 - 2) For Power Factor resolution is 0.001
 - 3) **I** Blink every 5 seconds, if a load is connected to at least 1 of the 3 phases

RESOLUTION FOR CT RATING

CT Rating	KWh
160A	0.1K
250A	0.1K
400A	0.1K
800A	1K

SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operation manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in the manner specified by the manufacturer it might impair the protection provided by the equipment.



CAUTION

Read the instructions prior to installation and operation of the unit.



CAUTION

Risk of electrical shock

WIRING GUIDELINES



INSTALLATION GUIDELINES



CAUTION

1. This equipment, being of a built-in-type, normally becomes a part of a main control panel and in case the terminals do not remain accessible to the end user after installation and internal wire.
2. Conductors must not come into contact with the internal circuitry of the equipment or it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
3. Protection & disconnection means must be installed between power source and supply terminals to facilitate power 'ON' or 'OFF' function & must be installed in a convenient position normally accessible to the operator.



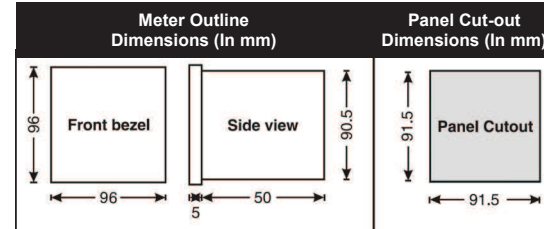
CAUTION

The equipment shall not be installed in environmental conditions other than those mentioned in this manual

MECHANICAL INSTALLATION

For installing the meter

1. Prepare the panel cut out with the dimensions as shown below.



2. Push the meter into the panel cut-out. Secure the meter in its place by fitting the clamp from the rear side. Fit clamps on both sides in diagonally opposite location for optimum fitting.
3. For proper sealing, tighten the screws evenly with required torque.
4. Recommended conductor cross section = 1.5mm².
Screw clamps tightening torque = 0.1N-m



CAUTION

The equipment in its installed state must not be in close proximity to any heating sources, caustic vapour, oil, steam or other unwanted process by-products.

EMC Guidelines

1. Use input power cable with shortest connections.
2. Layout of connecting cables shall be away from any internal EMI source.

TERMINAL CONNECTIONS

