# **ENERGY METER kWh**





EM-34LR

-- kWh WIZARDS

- Single meter records Electricity and utility.
- Individual phase and current reversal led indication.
- Optically isolated open collector pulse output.
- RS-485 port modbus communication RTU protocol.







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## ENERGY METER kWh EM-34LR

Reliable Performance

The product has a 8 digit LCD display with backlit. It continuously displays kWh parameter. The kWh display is resettable using key function. It has rich high frequency led pulse output in front facia.

#### **Features**

True Rms measurement.

Accuracy class 1s.

Accurate reading for balanced as well as unbalanced loads.

Optically isolated open collector pulse output.

LCD display with yellow green backlit.

Phase available indication provided.

Phase reverse indication provided.

8 digits for direct kWh reading.

On site programmable CT ratio and PT ratio, Meter Id.

Reliable performance at Low Current(>5% of load).

Potential free pulse output for energy.

Flush mounting compact design.

Four switch for programming functions on front side.

Energy reset and password protection.

Old register to store the previously cleared energy value.

Once CTR, PTR programmed, the meter displays direct reading of kWh.

Rs-485 modbus communication RTU protocol.

#### **Applications**

Commercial and Industrial Sub Metering.

Special oem application.

Control and relay panels.

Genset, Solar applications, Ups.

Switch gear panels.

Scada, BMS(Building management systems).

#### **Electrical Specification**

System: 3phase 4wire / 3phase 3wire / 1phase 2 wire.

Operating Voltage: 80 - 500 V AC Line to Line at 45........65 Hz.

PT ratio: 100v to 500kv / 110v.

Current: 50mA-6AAC.

CT Primary Ratio: 5-9999A AC (only primary to be set).

Power Consumption: < 0.4VA in Current Circuit, < 0.4VA in Voltage.

Auxiliary supply: 230V AC / 110V AC (±20%) 50Hz.

Burden: 0.2VA per phase & < 3VA max on Auxiliary supply.

Power factor: 0.8lead, Unity, 0.5lag.

Dielectric strength: 2 kv for 1min...

#### **Environment**

Ambient: -10° C to 55° C.

Storage: -20° C to 70° C.

Humidity: <95% RH ...... Non condensing.

#### **Mechanical Dimensions**

Front: 96mm x 96mm / Depth 54mm

Panel Cut Out: 91mm x 91mm ± 0.1mm

Casing: Flame retardant ABS.

Connector: ABS & Pcb terminal block.

Weight 450gm approximately.

#### Relevant Standard

EMC: IEC 61326 / Immunity: IEC 61000-4-3 / Safety: IEC 61010-1-2001

Protection: Ip52 Front / Ip20 Terminal block.

#### **Pulse Output**

1pulse = 10 Wh x External CT ratio x External PT ratio

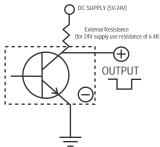
Open collector pulse output.

External resistance to be used Dc supply and '+' point.

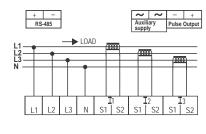
External resistance value will vary depends on external voltage of 5V to 24V, which is given by user.

External resistance for 24 Dc is 6.4kilo ohm.

## OPEN COLLECTOR PULSE OUTPUT



## Typical Diagram



#### Display Refer

5A -50A

00.0000

kWh

51A-500A

0.00000

kWh

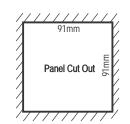
501A-5000A

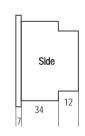
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kWh

Above 5000A [ 0000000 ]

96mm Front





Energy Meter kWh Reliable Performance