

# MULTISPAN 3 Phase Energy & Power Meter EM-10



## TECHNICAL SPECIFICATION

### INPUT

Voltage AC	
Direct voltage AC	30 to 300V AC (P-N) 50 to 500V AC ( P-P)
Burden	<0.2 VA
Current AC	
Primary CT Ratio	5 to 4000 Amp Selectable
Secondary Current Ac	5 Amp (0.5 To 5 Amp)
Burden	<0.2 VA
Overload	For 5A CT: Up to 6A Continuous

### CALCULATED PARAMETERS

Parameter	Range
Active Power ( KW )	0000 - 9999 KW
Active Energy ( KWH )	0 -999999 KWH

### DISPLAY & KEYS

Display	6 Digit , 1 Line 7 Seg. 0.56" Red LED
Key	,

### DIMENSION

Size (mm)	96 (H) x 96 (W) x 52 (D) mm
Panel Cutout	92 (H) x 92 (W) mm

### AUXILIARY POWER SUPPLY

Power Supply	230V AC,50 Hz
Burden	Approx 3VA @ 230V AC

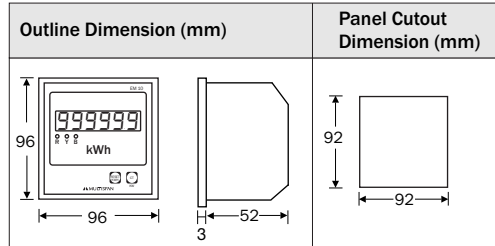
### ENVIRONMENTAL CONDITION

Working Temperature	0 to 55°C
Storage Temperature	0 to 55°C
Relative Humidity	95 % RH Non-Condensing
Protection Level (As per request)	IP-65 (Front side As per IS/IEC 60529 : 2001)

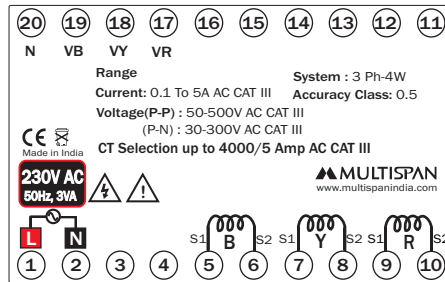
### NETWORK CONNECTION

3 Phase-4 Wire ( 3P-4W )

## MECHANICAL INSTALLATION



## TERMINAL CONNECTION



## CT PRIMARY SELECTION

- press & Hold key along with power on unit to display  $\frac{CT}{KW}$  ( CT Ratio mode ) on immediately Releasing key, unit will allows to edit CT Ratio up to 4000/5.
- CT Ratio change by using & key.
  - To increase CT Ratio press key.
  - To decrease CT Ratio press key.
- To save change CT Ratio, power off the unit and normally power on the instrument

## TO VIEW KW VALUE

Long press key

## TO RESET KW VALUE

press key For 10 sec

## LED INDICATION

LED R, Y & B are Indicated that which phase Voltage is Present in the instrument.  
Example. If all the Phase voltage present, then R, Y & B all LED ON. If Any Phase is absent, then it LED is OFF.

## SAFETY PRECAUTION

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

If all the equipment is not handled in a manner specified by the manufacturer, it might impair the protection provided by the equipment.

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

**WARNING** : Risk of electric shock.

## MAINTENANCE

- The equipment should be cleaned regularly to avoid blockage of ventilating parts.
- Clean the equipment with a clean soft cloth. Do not use isopropyl alcohol or any other cleaning agent.
- Fusible resistor must not be replaced by operator.

## WARNING GUIDELINES

**WARNING** : Risk of electric shock.

- To prevent the risk of electric shock, power supply to the equipment must be kept OFF while doing the wiring arrangement. Do not touch the terminals while power is being supplied.
- To reduce electro magnetic interference, use wire with adequate rating and twists of the same of equal size shall be made with shortest connection.
- Cable used for connection to power source, must have a cross section of 1mm or greater. These wires should have insulations capacity made of at least 1.5kV.

## INSTALLATION GUIDELINES

- This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminal do not remain accessible to the end user after installation and internal wiring.
- Do not allow pieces of metal, wire clippings, or fine metallic fillings from installation to enter the product or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
- Circuit breaker or mains switch must be installed between power source and supply terminal to facilitate power 'ON' or 'OFF' function. However this mains switch or circuit breaker must be installed at convenient place normally accessible to the operator.
- Use and store the instrument within the specified ambient temperature and humidity ranges as mentioned in this manual.

## MECHANICAL INSTALLATION GUIDELINES

- Prepare the panel cutout with proper dimensions as shown above.
- Fit the unit into the panel with the help of clamp given.
- The equipment in its installed state must not come in close proximity to any heating source, caustic vapors, oil steam, or other unwanted process byproducts.
- Use the specified size of crimp terminal (M3.5 screws) to wire the terminal block. Tightening the screws on the terminal block using the tightening torque of the range of 1.2 N.m.
- Do not connect anything to unused terminals.