



Product Features

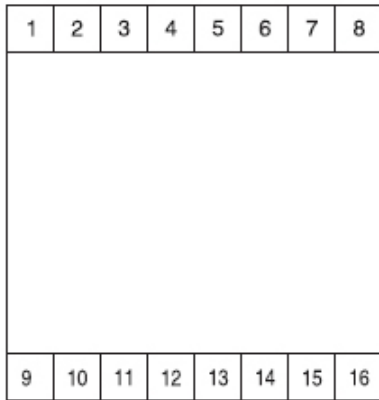
- High brightness LED
- Program can be locked by removing short link connected across specified terminals
- EMS-11: Measurement of current parameters (L-N) *CT primary and secondary programmable.
- EMS-12: Measurement of current parameters *PT primary and secondary programmable.
- EMS-13: Measurement of frequency parameter. (Average)
- EMS-02: Measurement of basic parameters.(Current (L-N), Voltage (L-N),(L-L), frequency (average) and Power factor (Total) * CT ratio programmable, RS485 Mod-bus RTU protocol available.

Specifications

Modelc	EMS-02	EMS-18
Rated voltage (Aux. Supply) c	85 to 270 V AC / DC	
Rated Frequency	50 / 60Hz \pm 5% for AC only	
Power consumption	< 5 VA / 1W	
Voltage, Current, Frequency, PF	\pm 1% of the display value \pm 1 digit	
Input voltage	3 Phase 4 wire (R,Y,B,N) Range - 415 VAC (-40% to +20%) 110 VAC (-40% to +20%)	
Input current	Current inputs (AR, AY, AB) 1A to 5A (to 200%)	
Input Frequency	50 Hz, \pm 2%	
Burden	< 0.2 VA per Volts/Amps input	
Accuracy	Class 1 / Class 0.5	
Recovery Time	2 sec minimum.	
Communication	RS-485 MODBUS RTU Protocol	NA
Meter Constant	3200 Pulses / kWh 3200 pulses / KVArh	
CT Ratio Selectable	Primary 1 to 5000A max. Secondary 1 to 5A.	
PT Ratio Selectable	PT Ratio Selectable	
Device ID	1 - 247	NA
Baud rate	2400, 4800, 9600,19200bps	NA
Pulse Output	Active Energy / Reactive Energy	
Scan Rate	1Sec minimum	NA
Ambient Temperature	Operation c -10°C to + 55°C(14°F to 131°F) Storage c -25°C to + 80°C(-13°F to 176°F)	
Humidity	Up to 95% RH @ 40°C	
Insulation resistance	>100M ohms @ 500V DC	
Dielectric strength	2.5 KV AC, 50Hz for 1 minute (Between current carrying & non-current carrying parts)	
Electrical connection	Screw type terminals with self lifting clamps.	
Dimension	96 X 96 X 117 mm (W X H X D)	

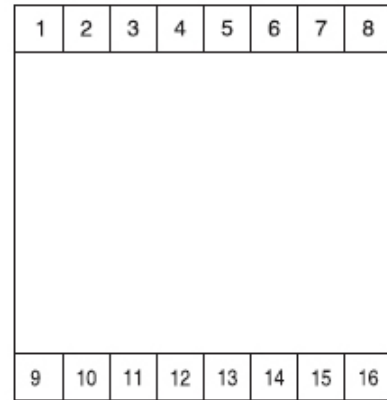
Connections

EMS-02



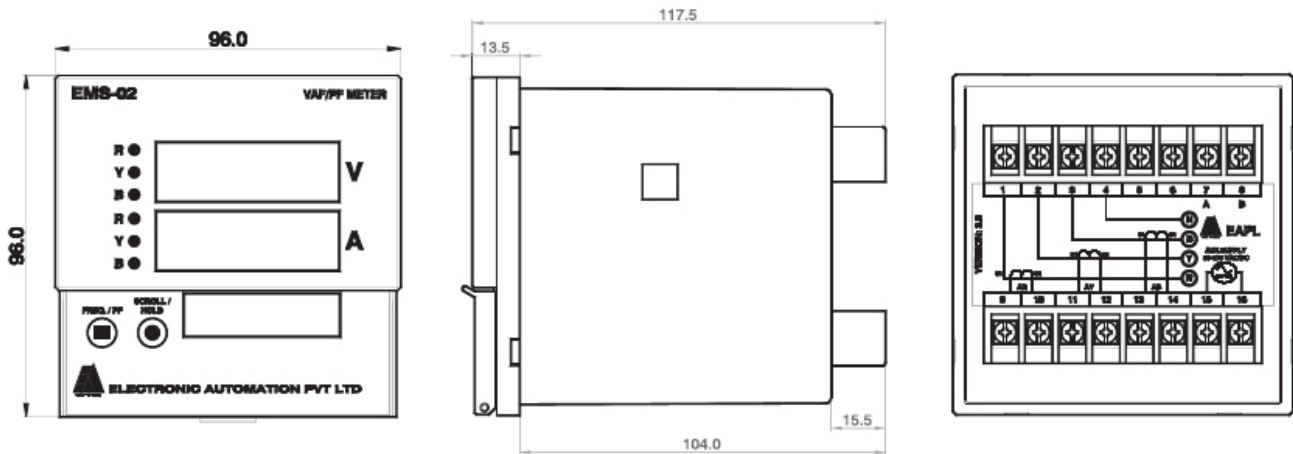
- | | |
|--------------|---------------------------|
| 1 : R Phase | 9, 10 : S1, S2 - R Phase |
| 2 : Y Phase | 11, 12 : S1, S2 - Y Phase |
| 3 : B Phase | 13, 14 : S1, S2 - B Phase |
| 4 : Neutral | 15, 16 : Source |
| 7 & 8 : A, B | |
- (RS 485 Communication port)

EMS-18



- | | |
|-------------|---------------------------|
| 1 : R Phase | 9, 10 : S1, S2 - R Phase |
| 2 : Y Phase | 11, 12 : S1, S2 - Y Phase |
| 3 : B Phase | 13, 14 : S1, S2 - B Phase |
| 4 : Neutral | 15, 16 : Source |

Dimensions



Accessories

Panel locking side anchors - 2 Nos

Hints On Correct Use

All connection screws should be tightened properly for accurate readings. Ensure phase CTs are connected to the respective phase CT terminals in the meter.

Caution

- If the input source voltage shoots beyond specified voltage range the unit will be damaged beyond repairs. Suitable protection for incoming voltage is recommended.
- Use 2.5mm² U-type lugs with sleeve.