MULTISPAN

MULTI FUNCTION METER
EPM-310

CE

TECHNICAL SPECIFICATION

PARAMETER SPECIFICATION

Input Signal	3Ø 4W/1Ø 2W Selectable
CT Primary	up to 9999A (Programmable)
PF Avg. & Per Phase	0.100 - 1.000
Frequency (Hz)	45.00 - 60.00 Hz
Load hours	9999.59 Hrs/Min.
No load hours	9999.59 Hrs/Min.
RPM	3600 RPM @ 60 Hz & 2 pole
POWER	
KW Total	0.000 - 9999 kW
kW Per Phase	0.000 - 9999 kW
kVA Total	0.000 - 9999 kVA
kVA Per Phase	0.000 - 9999 kVA
kVAr Total	0.000 - 9999 kVAr
kVAr Per Phase	0.000 - 9999 kVAr
ENERGY	
kWH Total	000.000 - 99999999 kWh
kVAh Total	000.000 - 99999999 kVAh
kVArh Total	000.000 - 99999999 kVArh

INPUT:

Voltage AC	
Direct Voltage AC	30 to 300V(L - N)
Current AC	
Primary CT Ratio	5 to 9999 Amp selectable
Secondary Current AC	0.03 to 5 Amp

DISPLAY & KEY :

Display	8 Digit,7 Segment 0.5" RED
Key	SET/ENT, INC, DEC

DIMENSION :

Size	48 (H) x 96 (W) x 75 (D) mm
Panel Cutout	45 (H) x 92 (W) mm

AUXILIARY SUPPLY :

Supply voltage	100 to 270V AC, 50/60Hz
Power consumption (VA RATING)	Approx 4 VA @ 230V AC MAX

ACCURACY:

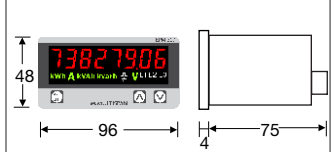
Class 0.5

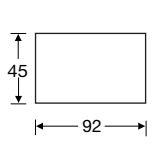
ENVIRONMENT CONDITION:

Operating Temp.	0 °C to 55 °C
Relative Humidity	UP to 95% RH (non-condensing)
Protection Level (AS Per Request)	IP-65 (Front side) As per IS/IEC 60529 : 2001

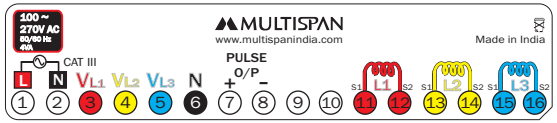
MECHANICAL DIMENSION

Outline Dimension (mm)	Panel Cutout Dimension (mm)





TERMINAL CONNECTION



KEY OPERATION

PARAMETER SETTING MODE	
To Set Parameter Value	Press SET ENT For 5 Sec
To Increment parameter value	∧
To Decrement parameter value	∨
To Exit from parameter setting	SET ENT
To scroll & hold pages	Press ∧ + ∨ For 5Sec

RESOLUTION

CT PRIMARY	ENERGY RATE PULSE OUTPUT
5 to 75	0.01 Kwh
76 to 750	0.1 Kwh
751 to 7500	1 Kwh
7501 to 9999	10 Kwh

INSTALLATION GUIDELINES

1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and internal wiring.
2. 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.
3. 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.
4. Use and store the instrument within the specified ambient temperature and humidity ranges as mentioned in this manual.

MECHANICAL INSTALLATION GUIDELINES

1. Prepare the panel cutout with proper dimensions as shown above.
2. Fit the unit into the panel with the help of clamp given.
3. The equipment in its installed state must not come in close proximity to any heating source, caustic vapors, oils steam, or other unwanted process byproducts.
4. 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.
5. Do not connect anything to unused terminals.

MAINTENANCE

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

SAFETY PRECAUTION

All safety related codifications, symbols and instructions that 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.

WARNING GUIDELINES

WARNING : Risk of electric shock.

1. 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.
2. To reduce electro magnetic interference, use wire with adequate rating and twists of the same of equal size shall be made with shortest connection.
3. 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.
4. A better anti-noise effect can be expected by using standard power supply cable for the instrument.

PARAMETER SETTING:

Press SET ENT key For 5 Sec

PASS 10 (CT Password)
(10) Change by ∧ & ∨ Key

Press SET key

Ct 5 (CT Ratio)
(5 to 9999Amp Selectable)
Change by ∧ & ∨ Key

Press SET key

PLnd AUt (Pulse mode)
(Auto-Manual selectable)
Change by ∧ & ∨ Key

Press SET key

If auto mode selectable

POUt 0.01 / 0.01,0.1,1,10(Pulse out)

Press SET key

PLtn 100 / 10 to 500 ms(Pulse on time)

Press SET key

nty 3P4y / 3Ø 4W/1Ø 2W (Wire Selection)

Press SET ENT key TO Save & exit

RESET SETTINGS

Press SET ENT key For 5 Sec

PASS 15 (Reset Password)

Press SET key

rSt Enr9 (Reset Energy)

ALL n0 (Yes/No) Change by ∧ & ∨ Key

Press SET ENT key

If YES selectable

PyH n0 KWH Reset (Yes/No) Change by ∧ & ∨ Key

Press SET ENT key

PUrH n0 Kvarh Reset (Yes/No) Change by ∧ & ∨ Key

Press SET ENT key

LHr5 n0 Load hour Reset (Yes/No) Change by ∧ & ∨ Key

Press SET ENT key

nHr5 n0 No Load hour Reset (Yes/No) Change by ∧ & ∨ Key

Press SET ENT key to save & exit

LOAD HOUR & RPM

Press SET ENT key For 5 Sec

PASS 25

Press SET key

LdH Enb Load hour (Enable / disable)

Press SET ENT key

If Ldh IS disable

PErC 10 Load Percentage (5 to 50%)

Press SET ENT key

rPn Enb RPM (Enable / disable)

Press SET ENT key

If RPM IS disable

POLE 4 Pole (2 to 28)

Press SET ENT key to save & exit

PAGES

1) V_{LN} (L1) — 230.8 V L1
2) V_{LN} (L2) — 235.7 V L2
3) V_{LN} (L3) — 245.7 V L3
4) V_{LN} (AVG) — 237.2 V L1 L2 L3
5) V_{LL} (L1-L2) — 415.7 V L1 L2
6) V_{LL} (L2-L3) — 388.9 V L2 L3
7) V_{LL} (L1-L3) — 510.4 V L1 L3
8) V_{LL} (AVG) — 438.6 V L1 L2 L3
9) Current (L1) — 4.875 A L1
10) Current (L2) — 3.120 A L2
11) Current (L3) — 5.000 A L3
12) Current (AVG) — 4.331 A L1 L2 L3
13) Frequency — FrEq 50.1
14) PF (L1) — PF 0.987 L1
15) PF (L2) — PF 0.521 L2
16) PF (L3) — PF 0.861 L3
17) PF (AVG) — PF 0.789 L1 L2 L3
18) KW (L1) — 1.184 kW L1
19) KW (L2) — 1.104 kW L2
20) KW (L3) — 1.808 kW L3
21) KW (Total) — 1.209 kW L1 L2 L3
22) KVA (L1) — 1.209 kVA L1
23) KVA (L2) — 1.287 kVA L2
24) KVA (L3) — 1.208 kVA L3
25) KVA (Total) — 3.704 kVA L1 L2 L3
26) Kvar (L1) — 0.296 kvar L1
27) Kvar (L2) — 0.394 kvar L2
28) Kvar (L3) — 0.594 kvar L3
29) Kvar (Total) — 1.284 kvar L1 L2 L3
30) Kwh — 59.221 kWh
31) Kvah — 21.110 kVAh
32) Kvarh — 21.110 kvarh
33) Load hour — LHr 0.12
34) No Load hour — nHr 0.07
35) RPM — rPn 1500

Note : In 1P-2W Page 1,9,13,14,18,22,26,30, 31,32,33,34,35 will display

Specifications are subject to change, since development is a continuous process, So for more updated operating information and Support, Please contact our Helpline: +91-9081078683/81 or Email at service@multispanindia.com Ver:191201