

DIN 70mm

Features :

- 3Ø True RMS (Voltage, Current)
- 3Ø Power (Active, Reactive, Apparent)
- 3Ø Energy (Active, Reactive, Apparent)
- Monitors electrical parameters for 4 loads (3Ø), 12 loads (1Ø)
- RS485 communication MOD US RTU protocol
- Energy (Active, Reactive, Apparent)
- Self powered

Certification : **Display specifications**

| | |
|---------------------|---|
| Display | LCD with Backlight, 3 rows |
| Digits | 1 row of 4 digits 2 rows of 7 digits |
| Digit height | 0.24 |
| Resolution | For energy : 0.01k, 0.1k, 1k, 0.01M, 0.1M, 1M (depending upon CT ratio x PT ratio) For Power, Voltage : Auto resolution For Power factor : 0.01 Voltage (L - L / L - N) : $\pm 0.05\%$ of F.S. Current : $\pm 0.05\%$ of F.S., Frequency : $\pm 0.1\%$ Power & Energy (Active, Reactive, Apparent) : 1% |
| Protection features | Password protected for set-up |

Input specifications

| | |
|--|--|
| Type of measurement | TRUE RMS |
| Sampling rate | 100 Samples / Cycle |
| Electrical connections | 3Ø - 4 wire (Wye), 1Ø - 2 wire (L-N) |
| Data update rate | |
| Instantaneous | 1 sec |
| Demand | 15 sec |
| Input-voltage | |
| PT primary | 100V to 10kV (Programmable for any Value) |
| PT secondary | 100V to 500V AC(L-L) (Programmable for any value) |
| Voltage nominal | 240V AC L-N / 415V AC L-L |
| Measured V with full range | 60 to 300V AC, 50 / 60Hz, Self-Supplied, (V1, N) |
| Permanent overload | 750V AC L-L |
| Impedance | 0.8M |
| Frequency range | 45 - 65Hz |
| VA burden | 0.2W at 300V AC L-N / Phase |
| Input-current | |
| CT ratings primary | 1 / 5A up to 10kA (Programmable for any Value) |
| CT ratings secondary | 330mV |
| Current nominal | 330mV |
| Measured Amps with over range & Crest factor | 3.3mV to 396mV |
| Frequency range | 45 - 65Hz |

Measurement accuracy

| | |
|-----------------|---------------------|
| Current | $\pm 0.5\%$ of F.S. |
| Voltage | $\pm 0.5\%$ of F.S. |
| Power factor | ± 0.01 |
| Power | 1% |
| Frequency | $\pm 0.1\%$ |
| Active energy | 1% |
| Reactive energy | 1% |

Output specifications

| | |
|-----------------------|--|
| Device ID & Parity | 1 to 255 & None, Odd, Even |
| Protocol & Interface | RS485 and MODBUS RTU |
| Baud rate | 300, 600, 1200, 2400, 4800, 9600, 19200 baud |
| Transmission mode | Half duplex |
| Transmission distance | 500 meter maximum |
| Transmission speed | 300, 600, 1200, 2400, 4800, 9600, 19200 baud |
| Stop bits | 1 or 2 |
| Response time | 100 ms (Max and independent of baud rate) |
| Isolation | 2kV RMS |

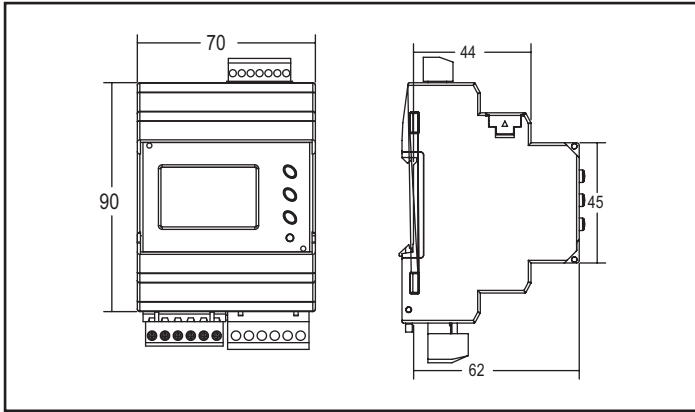
Mechanical specifications

| | |
|-------------------------|-----------------------------|
| Weight | 290 gms (10 Oz) |
| Material | LE AN 923- 7035 GRE |
| IP degree of protection | (IEC 60529) IP51 Front only |
| Torque at terminals | 0.68 N-m to 0.79 N-m |
| Mounting position | Din Rail |

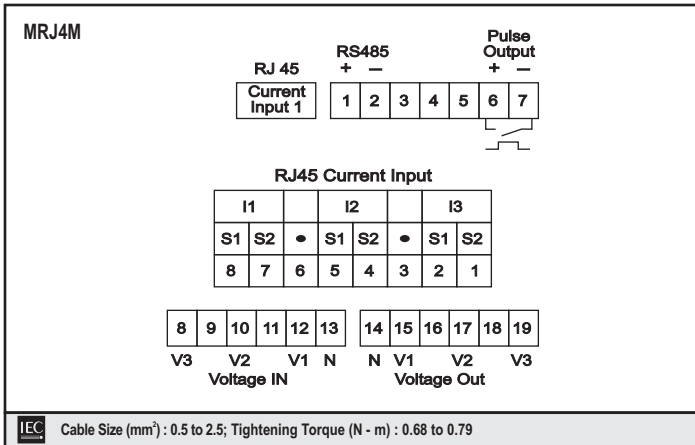
Auxiliary supply specifications

| | |
|-------------------|--|
| Supply voltage | 60 to 300V AC, 50 / 60Hz, Self -Supplied, (V1, N) |
| Burden | 6 W at 277V L-N |
| Frequency | 50 / 60 Hz nominal |
| Ride-through time | 100 ms typical at 120V AC and maximum burden 100 ms typical at 277V AC and maximum burden |

Dimensions (All dimensions are in mm)



Terminal Connection



Compliance

| Applicable EMI / EMC Standards | | |
|----------------------------------|--------------------|--|
| Product Standard : IEC 61326 - 1 | | |
| Category | | Standards Compliance |
| ESD Immunity | IEC 61000 - 4 - 2 | Level IV (Air Discharge : 15kV), (Contact Discharge : -8kV) |
| Surge Immunity | IEC 61000 - 4 - 5 | + / - 2kV Common Mode, (Line to Ground) + / - 1kV Differential Mode, (Line to Line) |
| Radiated Susceptibility | IEC 61000 - 4 - 3 | Level III, 80 to 1000MHz (10V / m) Level II, 1.4GHz to 2GHz (3V / m) Level I, 2GHz to 2.7GHz (1V / m) |
| Conducted Susceptibility | IEC 61000 - 4 - 6 | Level II (3V / m) |
| Voltage Dips and Interruptions | IEC 61000 - 4 - 11 | Dips : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C) 70% residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Criteria C) Interruptions : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C) |
| Conducted Emission | CISPR - 11 | |
| Radiated Emission | CISPR - 11 | |
| Electrical Fast Transient | IEC 61000 - 4 - 4 | Level III (2kV) |

Ordering Information

| Product Code | Supply Voltage | Output | | Certification |
|--------------|--|--------------|---------------|---------------|
| MRJ4M | Self Supplied (V1, N) 60 to 300V AC | Pulse Output | Comm. (RS485) | CE |