

DIN 70mm

# Features:

- 3Ø True RMS (Voltage, Current)
- Plug-n-Wire, RJ45 Connector Current Input
- Energy (Active, Reactive)
- 3Ø Power (Active, Reactive, Apparent)
- Programmable CT Primary, PT Primary / Secondary
- Modbus RTU Communication (RS485)
- Single Pulse Output
- Max Demand power
- Self Powered

Certification :  $\mathbf{C}\mathbf{\in}$ 

## **Display Specifications**

Display	3 rows, LCD with Backlight
Digits	2 rows of 4 Digits, 1 row of 7 Digits
LED Indications	Integration of Energy

#### **Input Specifications**

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Electrical Connection	3Ø - 4 wire, 1Ø - 2 wire
Input Voltage Range	60 to 300V AC (L - N) 104 to 520V AC (L - L)
Frequency	45 to 65Hz
Display Scrolling	Automatic / Manual
Power Consumption	8VA max
Display Reset	Programmable (For energy)
Resolution	For energy: 0.01k, 0.1k, 1k, 0.01M, 0.1M (depending upon CT ratio x PT ratio) For Power, Voltage, Current: Auto Resolution For Power Factor: 0.01
Accuracy	Voltage (L - N / L - L) : ±0.5% of F.S.  Current: ±0.5% of F.S.  Power Factor : ±0.01  Frequency : ±0.1 For L - N Voltage >20V  For L - L Voltage >35V  Power (Active, Reactive, Apparent) : ±1  Energy (Active, Reactive) : ±1
Memory Retention	10 years (For energy)
Measuring Parameters	Voltage (L - L / L - N) (Individual / Average), Current (Individual / Average), Frequency, Power Factor (Individual / Average), Active, Reactive & Apparent power (Individual / Total), Active and Reactive Energy, Demand (Max Active Power, Max Apparent Power)

#### **Output Specifications**

Pulse Output	Voltage Range: 24V DC max Current Capacity: 100mA max Pulse Duration: Selectable between 0.1 to 2.0 sec. Pulse Weight: Selectable between 0.01 to 9.99 kWh
Communication Interface and Protocol	RS485 and MODBUS RTU
Communication Address	1 to 255
Transmission Mode	Half duplex
Transmission Distance	500 meter maximum
Transmission Speed	300, 600, 1200, 2400, 4800, 9600, 19200 (in bps)
Parity	None, Odd, Even
Stop Bits	1 or 2
Response Time	100ms (max and independent of baud rate)

#### **Auxiliary Supply Specifications**

Supply Voltage	60 to 300V AC, 50 / 60Hz (±5%),
	Self Supplied (V1, N)

#### Settable Parameters

CT Primary	5A to 10kA (Programmable for any value)
CT Secondary	330mV
PT Primary	100V to 10kV (Programmable for any value)
PT Secondary	100V to 500V AC (L - L) (Programmable for any value)

# **Environmental Specifications**

Temperature	Operating Temperature : -10° to 55°C Storage Temperature : -20° to 75°C
Humidity (non - condensing)	Upto 85% RH

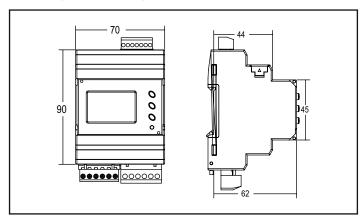
## **Mechanical Specifications**

Mounting	Din Rail	
Weight	191gms	

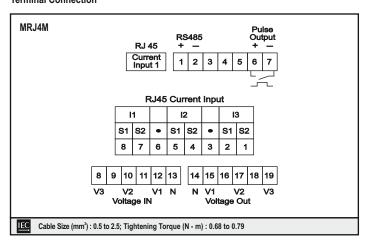
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# **Multifunction Meter**

#### 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)	C€

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