




70 X 90mm

**Features:**

- 3Ø True RMS (Voltage, Current)
- 3 Ø Power (Active, Reactive, Apparent)
- Import / Export Active, Reactive energy , Apparent Energy.
- Programmable CT/PT Primary / Secondary
- Modbus RTU Communication (RS485)
- Max / Min Demand Power

Certifications: 

**Display Specification**

Display	3 rows, LCD with backlight
Digits	Row 1 of 4 digits Row 2 and 3 of 7 digits
LED Indication	Integration of Energy (1000 Pulses /kwh)

**Input Specifications**

Electrical Connection	3Ø - 3/4wire, 2Ø - 3 wire, 1Ø - 2 wire
Input Voltage Range	11 to 300V AC, (Phase to Neutral) 19 to 519V AC, (Phase to Phase)
Input Current Range	Nominal 5A AC (Min-11mA, Max-6A)
Frequency	45Hz - 65Hz
Display Scrolling	Auto / Manual / Default
Power Consumption	8VA Max
Display Reset	Programmable (For energy)
Resolution	For energy: 0.01k,0. 1k,1K,0.01M,0.1M,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), 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, Apparent): Class 1
Memory Retention	10 years (For energy)
Measuring Parameters	Voltage (L-L / L-N) (Individual / Average), Current (I1, I2, I3) (Individual / Average), Frequency, Power Factor (Individual /Total) Active, Reactive & Apparent power (Individual/ Total), Active, Reactive (Import / Export) & Apparent Energy,Demand (Min / Max Active Power, Min / Max Reactive Power, Max Apparent Power)

**Output Specifications**

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	100 ms (max and independent of baud rate)

**Auxiliary Supply Specifications**

Supply Voltage	85 to 270V AC, (50/60Hz)
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**Settable Parameters**

CT Primary	1/5A to 10kA (Programmable for any value)
CT Secondary	1 / 5A (Programmable)
PT Primary	100V to 500kV (Programmable for any value)
PT Secondary	100V to 500V (Programmable for any value)

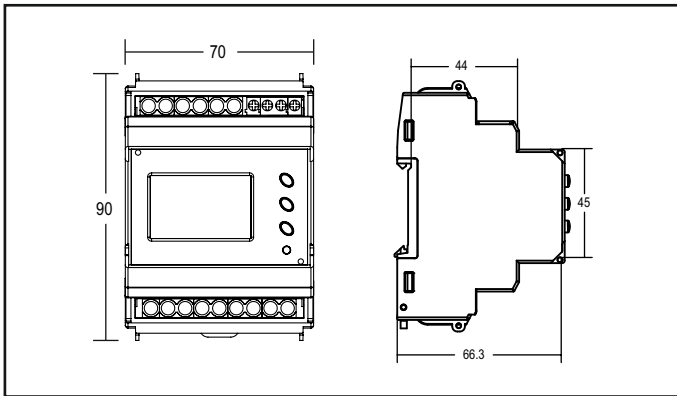
**Environmental Specifications**

Temperature	Operating Temperature: -5 to +60° C Storage Temperature: -20 to +75° C
Humidity	Upto 85% RH

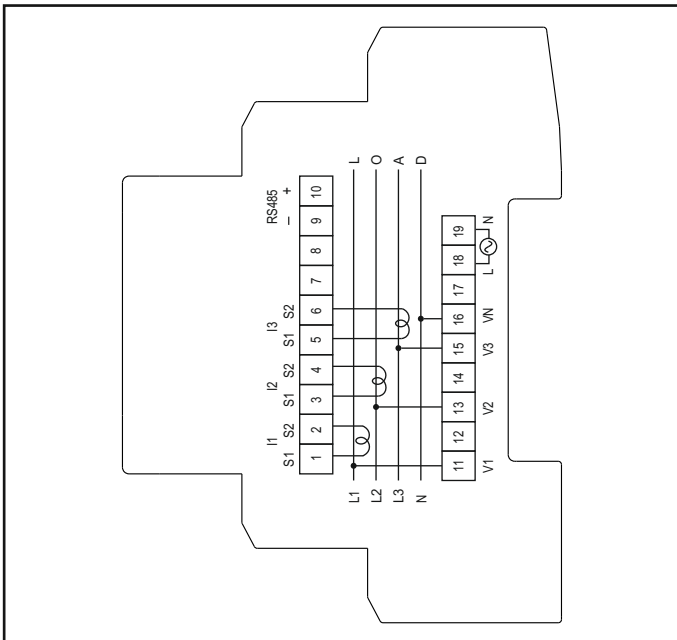
**Mechanical Specifications**

Mounting	Din Rail
Weight	208 gms

### Dimensions (All dimensions are in mm)



### Terminal Connections



### 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	<b>Dips</b> : 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) <b>Interruptions</b> : 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
	85 - 270V AC	Comm. (RS485)	CE
MFM384-R-C	■	■	---
MFM384-R-C-CE	■	■	■