MFM384-D

Dual Source Multifunction Meter

PRELIMINARY DATASHEET

Size: 96mm x 96mm (1/4 DIN)

Features:

- Dual Input Meter (Mains / D.G.)
- True RMS Measurement of 3Ø Voltage & Current Parameters
- 3 Ø Power Factor
- 3 Ø Power (Active, Reactive, Apparent)
- Energy (Active, Reactive, Apparent)
- Frequency
- Total Run Hour & ON Hour(Hour-Mins)
- RPM
- Phase Sequence Detection
- Programmable CT/PT Primary/Secondary
- Modbus RTU Communication (RS485)
- Pulse Output
- Max / Min Demand (Power)

Technical Specifications

Display

Display	4 row, Liquid Crystal Display (Lowest 8 digits for energy display)
Digit	4
Digit Height	0.44" (11.4mm) 0.25" (6.6mm) (for Lowest 8 digits)
Display Range	99999999 For Energy
Bargraph	Representation of current

Input Specifications

Electrical Connection	3Ø-3/4 wire, 2Ø-3 wire, 1Ø-2 wire
Input Voltage Range	19 to 519V AC, (Phase to Phase) 50/60Hz 11 to 300V AC, (Phase to Neutral) 50/60Hz
Input Current Range	10mA - 5A (6A Max)
Frequency	45Hz / 65Hz
Display Scrolling	Automatic / manual
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 Total Run Hour - 0.1hr RPM - 0.1 For Power factor - 0.001
Accuracy	Voltage (L-N / L-L), Current - ±0.5% of F.S Power factor - ±1% Frequency - 0.1 Hz (For V>20V L-N, V>35V L-L) Power (kW, kVA, kVAr) - 1% Active energy - Class 1 Reactive energy - Class 1 Apparent energy - Class 1 Total Run Hour - ±1% RPM - ±0.5%
Memory Retention	10 years (for energy)
Measuring Parameters	Voltage (P-P / P-N) (Individual/Average) Current (I1, I2, I3) (Individual / Average), Frequency, Power Factor (Individual/Average), Active, Reactive & Apparent power (Individual / Total) Active, Reactive & Apparent Energy (Total), RPM, Phase Sequence, Demand (Min / Max Active Power, Min / Max Reactive Power, Max Apparent Power), Total Run Hour, Total ON Hour, No of interruptions, Total Energy

Genset Smart Sensing	85 to 270V AC/DC

Output Specifications

Pulse Output	Voltage Range - External 24V DC Current Capacity - 100mA max Pulse Width - 100 ms ±5 ms
Communication	RS485 MODBUS Communication

Supply Specifications

Auxiliary Supply	85 to 270V AC (50 / 60 Hz)

Resettable Parameters

C.T Primary	1A/5A to 10,000A programmable for any value
C.T Secondary	1A/5A (External CT must be connected for current more than 5A)
P.T Primary	100V to 999kV programmable for any value
P.T Secondary	100V to 500V (L-L) programmable for any value

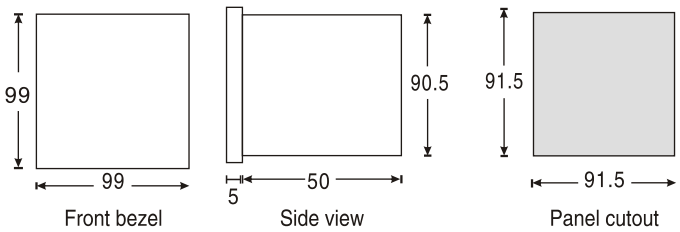
Environmental Specifications

Temperature	Operating Temperature: 0 to +50^0 C Storage Temperature : -20 to +75^{0}C
Humidity (non-condensing)	Upto 95% RH

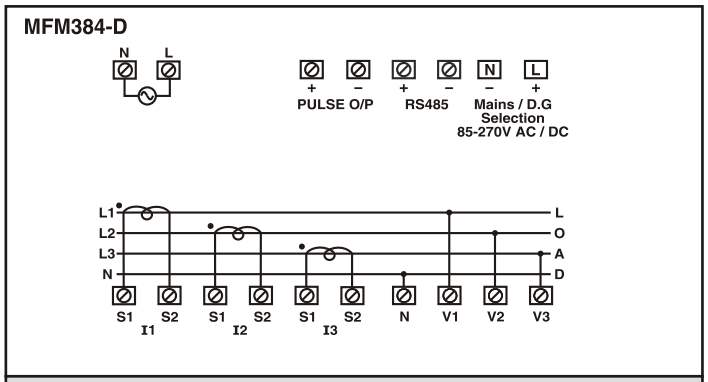
Mechanical Specifications

Mounting	Panel mount

Dimensions



Terminal Connections



Cable Size (AWG): 20 to 14 ; **Tightening Torque (Lb-inch):** 6.018 to 6.992

Cable Size (mm²): 0.5 to 2.5 ; **Tightening Torque (N-m):** 0.68 to 0.79

Explanation of Terms

Total Run Hour	No of Hour for which the load has been ON and has run
Total ON Hour	The Period for which the Auxiliary Supply is ON
Number of interruptions	No of Count to increment when : a) No of Interruptions on Auxiliary Supply
Total Energy	Energy consumed (D.G. + MAINS)

Ordering Information

Part No.	Supply Voltage	Output	
	85-270V AC	Pulse Output	Commn (RS485)
MFM384-D	■	■	■