

MFM Series (Multi-Function Meters)

FEATURES

- Measurement Functions
 - 3 Ø Voltage (True RMS)
 - 3 Ø Current (True RMS)
 - 3 Ø Power Factor
 - 3 Ø Power (Active, Reactive, Apparent)
 - Energy (Active, Reactive, Apparent)
 - Frequency
- Programmable CT/ PT Primary/ Secondary
- RS485 Modbus RTU Communication
- Single Pulse Output



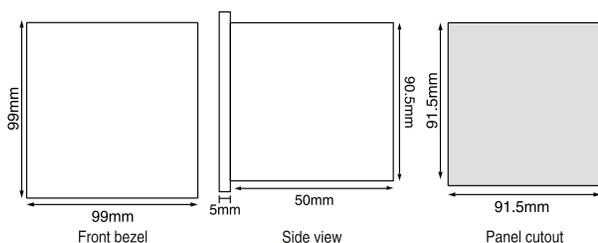
CAT. NO.

MFM384-C-CU

MFM383A-CU

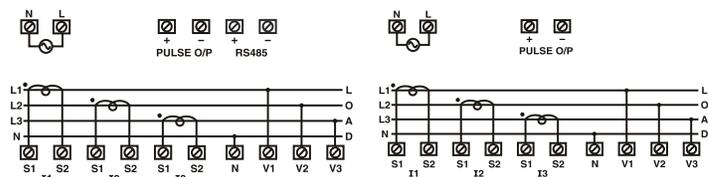
Display	MFM384-C-CU	MFM383A-CU
Display Type	LCD Display with backlight	LCD Display with backlight
Digits	4 rows of 4 digits 1 row of 8 digits for energy display	3 rows of 4 digits 1 row of 7.5 digits for energy display
Bargraph	Bargraph for current percentage	-
Display Scrolling	Automatic/ Manual	Automatic/ Manual
Supply Specification	85 ~ 270 VAC (50/ 60Hz)	85 ~ 270 VAC (50/ 60Hz)
Input Specification		
Electrical Wire System	3 Phase (3/4 wires), 2 Phase (3 wire), 1 Phase (2 wire)	3 Phase (3/4 wires), 2 Phase (3 wire), 1 Phase (2 wire)
Input Voltage Range	11 ~ 300 VAC (Phase to Neutral) 19 ~ 519 VAC (Phase to Phase)	11 ~ 300 VAC (Phase to Neutral) 19 ~ 519 VAC (Phase to Phase)
Input Current Range	10mA ~ 5A (External CT required for current >5A)	10mA ~ 5A (External CT required for current >5A)
Frequency	45 ~ 65Hz	45 ~ 65Hz
Parameter Resolution		
Energy	0.01k, 0.1k, 1k, 0.01M, 0.1M, 1M	0.01k, 0.1k, 1k depending on CT ratio x PT ratio
Power, Voltage, Current	Auto resolution	Auto resolution
Power Factor	0.001	0.001
Accuracy Class		
Voltage (L-N, L-L), Current	+/- 0.5% of Full-Scale Value	+/- 0.5% of Full-Scale Value
Power Factor	+/-1%	+/-1%
Frequency	0.1 Hz +/- 0.1 Hz	0.1 Hz +/- 0.1 Hz
Active, Reactive, Apparent Power	1%	1%
Active, Reactive, Apparent Energy	Class 1	Class 1
Output Specifications		
Pulse Output	1	1
Pulse Voltage	24 VDC max.	24 VDC max.
Pulse Current	100mA max.	100mA max.
Pulse Duration	100ms +/-5ms	100ms +/-5ms
Communication	RS485 MODBUS Communication	-
Programmable Parameters		
CT Primary	1A/ 5A ~ 10,000A (Programmable for any value)	1A/ 5A ~ 10,000A (Programmable for any value)
CT Secondary	1A/ 5A (External CT must be connected for current >5A)	1A/ 5A (External CT must be connected for current >5A)
PT Primary	100V ~ 500 kV (any value)	100V ~ 10 kV (any value)
PT Secondary	100V ~ 500 VAC (any value)	100V ~ 500 VAC (any value)
Environmental Specifications		
Temperature	Operating: -10°C~55°C, Storage: -20°C~ 75°C	Operating: -10°C~55°C, Storage: -20°C~ 75°C
Humidity	Up to 85% RH	Up to 85% RH
Protection Level	IP65 for Faceplate	IP65 for Faceplate
Physical Specifications		
Size	1/4 DIN, 96 mm x 96 mm	1/4 DIN, 96 mm x 96 mm
Weight	0.70 lbs (318g)	0.70 lbs (318g)
Terminal Size Acceptability and Torque	20-14 AWG (0.5 - 2.5mm ²), 6-7 lb-in. (0.68 - 0.79Nm)	20-14 AWG (0.5 - 2.5mm ²), 6-7 lb-in. (0.68 - 0.79Nm)

DIMENSIONS



MFM Series

TERMINAL CONNECTIONS



MFM384-C-CU

MFM383A-CU

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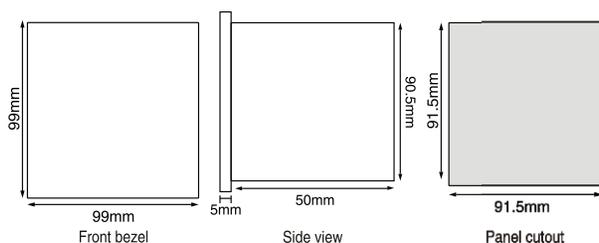


Please contact Altech for UL status.



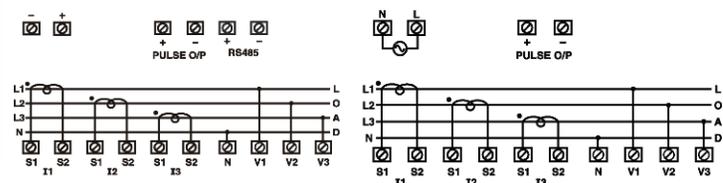
CAT. NO.	MFM374-C-CU	MFM374-A-CU
Display		
Display Type	7 Segment LED Display	7 Segment LED Display
Digits	3 rows of 4 digits 8 digits for energy display	3 rows of 4 digits 8 digits for energy display
Bargraph	—	—
Display Scrolling	Automatic/ Manual	Automatic/ Manual
Supply Specification	85 ~ 270 VAC (50/ 60Hz)	85 ~ 270 VAC (50/ 60Hz)
Input Specification		
Electrical Wire System	3 Phase (3/4 wires), 2 Phase (3 wire), 1 Phase (2 wire)	3 Phase (3/4 wires), 2 Phase (3 wire), 1 Phase (2 wire)
Input Voltage Range	11 ~ 300 VAC (Phase to Neutral) 19 ~ 519 VAC (Phase to Phase)	11 ~ 300 VAC (Phase to Neutral) 19 ~ 519 VAC (Phase to Phase)
Input Current Range	10mA ~ 5A (External CT required for current >5A)	10mA ~ 5A (External CT required for current >5A)
Frequency	45 ~ 65Hz	
Parameter Resolution		
Energy	0.01k, 0.1k, 1k, 0.01M, 0.1M, 1M	0.01k, 0.1k, 1k, 0.01M, 0.1M, 1M
Power, Voltage, Current	Auto resolution	Auto resolution
Power Factor	0.001	0.001
Accuracy Class		
Voltage (L-N, L-L), Current	+/- 0.5% of Full-Scale Value	+/- 0.5% of Full-Scale Value
Power Factor	+/- 1%	+/- 1%
Frequency	0.1 Hz	0.1 Hz
Active, Reactive, Apparent Power	1%	1%
Active, Reactive, Apparent Energy	Class 1	Class 1
Output Specifications		
Pulse Output	1	1
Pulse Voltage	24 VDC max.	24 VDC max.
Pulse Current	100mA max.	100mA max.
Pulse Duration	100ms +/-5ms	100ms +/-5ms
Communication	RS485 MODBUS Communication	—
Programmable Parameters		
CT Primary	1A/ 5A ~ 10,000A (Programmable for any value)	1A/ 5A ~ 10,000A (Programmable for any value)
CT Secondary	1A/ 5A (External CT must be connected for current >5A)	1A/ 5A (External CT must be connected for current >5A)
PT Primary	100V ~ 500 kV (any value)	100V ~ 10 kV (any value)
PT Secondary	100V ~ 500 VAC (any value)	100V ~ 500 VAC (any value)
Environmental Specifications		
Temperature	Operating: -10°C~55°C, Storage: -20°C~ 75°C	Operating: -10°C~55°C, Storage: -20°C~ 75°C
Humidity	Up to 85% RH	Up to 85% RH
Protection Level	IP65 for Faceplate	IP65 for Faceplate
Physical Specifications		
Size	1/4 DIN, 96 mm x 96 mm	1/4 DIN, 96 mm x 96 mm
Weight	0.71 lbs (320g)	0.71 lbs (320g)
Terminal Size Acceptability and Torque	20-14 AWG (0.5 - 2.5mm ²), 6-7 lb-in. (0.68 - 0.79Nm)	20-14 AWG (0.5 - 2.5mm ²), 6-7 lb-in. (0.68 - 0.79Nm)

DIMENSIONS



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TERMINAL CONNECTIONS



MFM374-C-CU

MFM374A-CU