MFM376-CE

Multifunction Meter



96 x 96mm

Features :

- **3Ø True RMS (Voltage, Current)**
- **3Ø Power (Active, Reactive, Apparent)**
- **Energy (Active, Reactive, Apparent)**
- **Programmable CT / PT Primary / Secondary**
- **Import / Export Energy**
- **Single pulse output**
- **Phase angle detection**
- **Max / Min demand power**
- **Run hour**
- **Auxiliary supply of 40 to 300V AC / DC**

Certifications : CE

Display specifications

Display	7 segments LED , 3 rows 2 rows of 8 digits for energy display
Digits	4 digits
Digit height	0.49"
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 : 0.001
Protection features	Password protected for set-up & clearing energy and Min/Max data

Input specifications

Type of measurement	TRUE RMS
Sampling rate	100 Samples / Cycle
Electrical connections	3Ø - 3 wire (Delta), 3Ø - 4 wire (Wye) 2Ø - 3 wire, 1Ø - 2 wire (L-N)
Data update rate	
Instantaneous	1 sec
Demand	15 sec
Harmonics	5 sec
Input-voltage	
PT primary	100V to 500kV (Programmable for any value)
PT secondary	100V to 500V (Programmable for any value)
Voltage nominal	240V AC L-N / 415V AC L-L
Measured V with full range	11 to 300V AC L-N, 19 to 519V AC L-L
Permanent overload	750 V AC L-L
Impedance	≥0.8MΩ
Frequency range	45 - 65Hz
VA burden	<0.2VA at 300V AC L-N / Phase
Input Current	
CT ratings primary	1/5A to 10kA (Programmable for any value)
CT ratings secondary	1/5A Programmable
Current nominal	5A
Measured amps with over range & crest factor	20mA to 6A
Withstand	120A for 1 sec
Frequency range	45 - 65Hz
VA burden	0.5VA at 5A / Phase

Measurement accuracy	
Current	±0.5% of F.S.
Voltage	±0.5% of F.S.
Power factor	±0.01
Power	±1%
Frequency	±0.1% For L-N Voltage >20V, For L-L Voltage >35V
Active energy	Class 1 as per IEC62053-21
Reactive energy	Class 1 as per IEC62053-21
THD & Individual Harmonic, V& A	Up to 31st Level

Output specification

Pulse output	Voltage range : External 24V DC max Current capacity : 100mA max Pulse width : 100 ms ±5 ms Configurable pulse weight from 1 to 9999000 pulses/kWh

Mechanical specifications

Weight	200 gms (7 Oz)
Material	MAKROLON 6557 SMOKE BLACK
IP degree of protection	(IEC 60529) IP51 Front only
Torque at terminals	0.68N-m to 0.79 N-m
Wire gauge at terminals	20 to 14AWG;75°C
Mounting position	Vertical

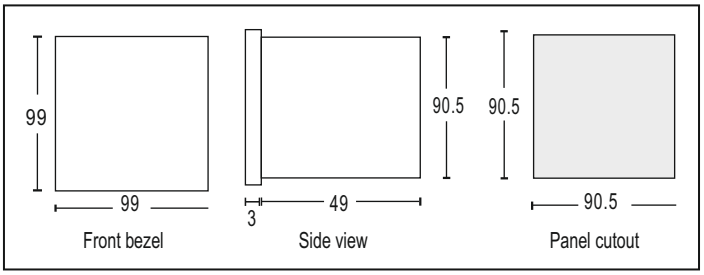
Auxiliary supply specifications

Operating range	40 to 300V AC / DC
Burden	< 6 VA at 277 V L-N
Frequency	50 / 60 Hz nominal
Ride-through time	100 ms typical at 230V AC and maximum burden

Environmental specifications

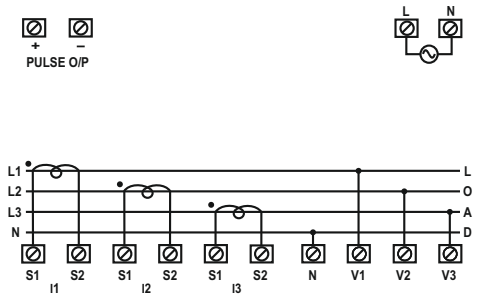
Operating temperature	Meter -10°C to +55°C (14°F to 131°F)
Storage temperature	Meter -20°C TO +75°C (-4°F to +167°F)
Humidity	Up to 85% RH (Non-Condensing)
Altitude	Up to 2000 meters (6561 ft.)
Measurement category	CAT III
Pollution degree	2
Product life	> 5 years

Dimensions (All are in mm)



Terminal connection

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

Compliance

Applicable EMI / EMC Standards	
Product Standard : IEC 61326 - 1	
Category	**Standards compliance**
Electrostatic discharge	IEC 61000 - 4 - 2
Immunity to electromagnetic RF fields	IEC 61000 - 4 - 3
Conducted immunity	IEC 61000 - 4 - 6
Immunity to magnetic fields	IEC 61000 - 4 - 8
Immunity to voltage dips and interruptions	IEC 61000 - 4 - 11
Fast transient	IEC 61000 - 4 - 4
Immunity to surge waves	IEC 61000 - 4 - 5
Conducted and radiated emissions	CISPR-22 / CISPR-11
Safety and Standards	
IEC61010 Edition 3.0 CAT III, Protection class II	
IEC 61326 - 1	
CAT III up to 480 V L-L CAT II up to 600 V L-L	
CAT III up to 300 V L-N	
As per IEC/UL 61010-1 Ed-3	

Ordering information

Product code	Supply voltage	Output		Certification
		Pulse output	Comm. (RS485)	
MFM376-CE	40 to 300V AC / DC	YES	---	CE