



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<br>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<br>(depending upon CT ratio X PT ratio)<br>For Power, Voltage, Current : Auto resolution<br>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)<br>2Ø - 3 wire, 1Ø - 2 wire (L-N) |
| Data update rate                             |  |
| Instantaneous                                | 1 sec  |
| Demand                                       | 15 sec   |
| Harmonics                                    | 5 sec  |
| <b>Input-voltage</b>                         |  |
| 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  |
| <b>Input Current</b>                         |  |
| 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,<br>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 31 <sup>st</sup> Level                        |

**Output specification**

|              |   |
|--------------|---|
| Pulse output | Voltage range : External 24V DC max<br>Current capacity : 100mA max<br>Pulse width : 100 ms ±5 ms<br>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                    |

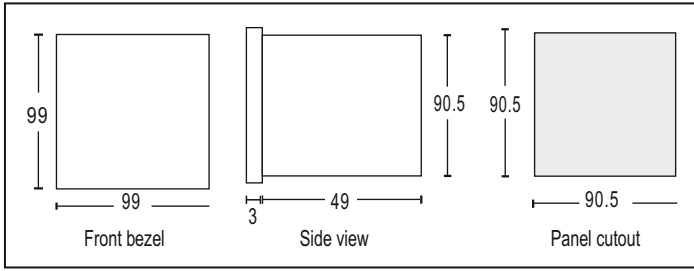
**Auxiliary supply specifications**

|                   |  |
|-------------------|--|
| 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 |

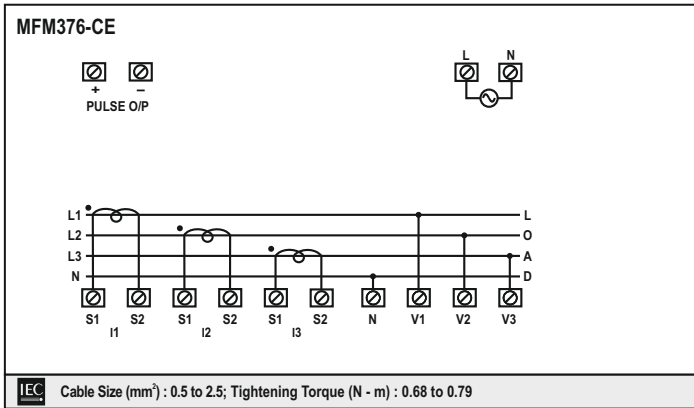
**Environmental specifications**

|                       |                                       |
|-----------------------|---------------------------------------|
| 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



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<br>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            |