



96 x 96mm

## FEATURES

- 3Phase True RMS (Voltage, Current)
- 3Phase Power (Active, Reactive, Apparent)
- Energy (Active, Reactive, Apparent)
- Programmable CT ,PT (Primary / Secondary)
- RS485 Communication MODBUS RTU Protocol
- % THD Upto 31 Level

## Display Specifications

Type	: 3 rows, LCD with Backlight
Digits	: 8 digits for energy display & 4digits for parameters
LED Indications	: Integration of Energy

## Input Specifications

Electrical Connection	: 3Phase-4Wire, 1Phase-2Wire
Input Voltage Range	: 11 to 300V AC (L-N), 19 to 519V AC (L-L)
Input Current Range	: Nominal 5A AC (Min - 11mA, Max - 6A)
Frequency	: 45 to 65Hz
Display Scrolling	: Automatic / Manual / Default
Power Consumption	: <8VA max
Display Reset	: Programmable (For energy & Max demand)
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, Harmonics 0.1%
Accuracy	: Voltage (L-N / L-L) : 0.5% of F.S. Current : 0.5% of F.S. Power Factor : $\pm 1.0\%$ Frequency : 0.2% Power (Active, Reactive, Apparent) : $\pm 1\%$ Energy (Active, Reactive, Apparent) : Class $\pm 1.0\%$
Memory Retention	: 10 years (For energy)
Measuring Parameters:	Voltage (L-L / L-N) (Individual / Average), Current (Individual / Average), Frequency, Power Factor (Individual / Total), Active, Reactive & Apparent Power (Individual / Total), Active, Reactive & Apparent Energy (Total), Demand (Min / Max) Active Power, %THD upto 31st Level for Voltage & Current / Max Demand Current,

## Output Specifications

Pulse Output	: Voltage Range : External 24V DC max Current Capacity : 100mA max
Communication Interface	: RS485 and MODBUS RTU & DG and Protocol
Communication Address	: 1 to 255
Transmission Mode	: Half duplex
Transmission Distance	: 500 meter maximum
Transmission Speed	: 9600 (in bps)
Parity	: None, Odd, Even
Stop Bits	: 1 or 2
Response Time	: 100ms (max and independent of baud rate)

## Auxiliary Supply Specifications

Supply Voltage	: 80 to 270V AC / DC
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## Settable Parameters

CT Primary	: 5A to 5000A (Programmable for any value)
CT Secondary	: 5A or 1A (Factory Settable)
PT Primary	: 100V to 500kV (Programmable for any value)
PT Secondary	: 100V to 500V AC (L-L) (Programmable for any value)

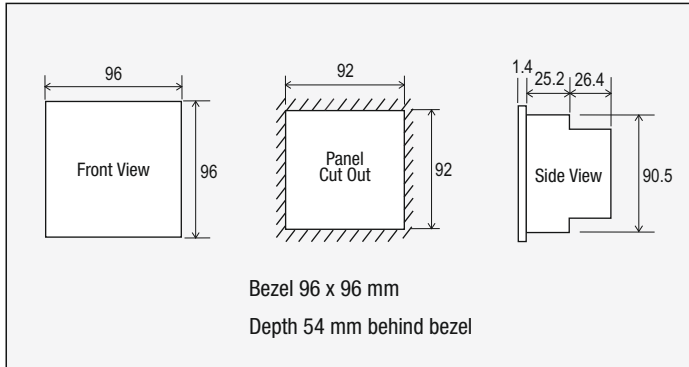
## Environmental Specifications

Temperature	: Operating Temperature : $-10^{\circ}$ to $55^{\circ}$ C Storage Temperature : $-20^{\circ}$ to $75^{\circ}$ C
Humidity	: 5% to 95%, Non-Condensing

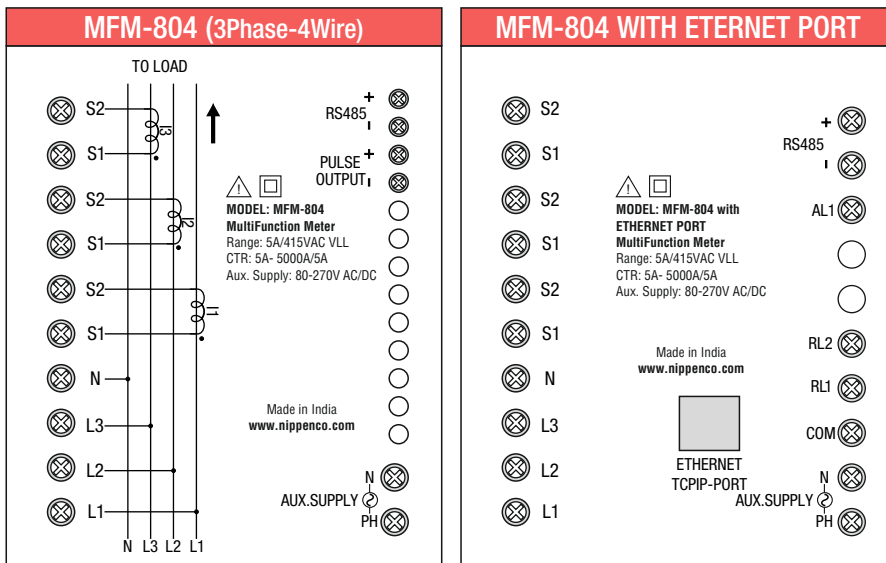
## Mechanical Specifications

Mounting	: Panel Mount
Size	: 96X96mm
Weight	: 230gms
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

Product Name	Discriptions
MFM804-3PH	MFM804 3 PHASE 96X96
MFM804-3PH-RS	MFM804 3 PHASE 96X96 RS485

**NOTE: ETHERNET MODEL AVAILABLE ON REQUEST**



96 x 96mm

## FEATURES

- 3 Phase True RMS (Voltage, Current)
- 3 Phase Power (Active, Reactive, Apparent)
- Energy (Active, Apparent)
- Programmable CT / PT (Primary / Secondary)
- Run Hour Auxiliary Interrupts

## Display Specifications

Display	: 3 rows, 7 segments LED Display
Digits	: 4 digits
Energy	: 8 Digit Energy (4 Digit 2 <sup>nd</sup> Row as MSB 4 Digit 3 <sup>rd</sup> Row as LSB)

## Input Specifications

Electrical Connection	: 3Phase-4Wire, 3Phase-3Wire, 1Phase-2Wire
Input Voltage Range	: 11 to 300V AC (L-N) 19 to 519V AC (L-L)
Input Current Range	: Nominal 5A AC (Min-20mA, Max-6A)
Frequency	: 45 to 65Hz
Display Scrolling	: Automatic / Manual / Default
Power Consumption	: 8VA max
Display Reset	: Programmable For energy (Active & Apparent)
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
Accuracy	: Voltage (L-N / L-L) : 0.5% of F.S. Current : 0.5% of F.S. Power Factor : $\pm 1.0\%$ Frequency : 0.2% For L-N Voltage >20V For L-L Voltage >35V Power (Active, Apparent) : 1%
Memory Retention	: 10 years (For energy)
Measuring Parameters	: Voltage (L-L / L-N) (Individual / Average), Current (Individual / Average), Frequency, Power Factor (Individual / Average), Active, & Apparent Power (Individual / Total), Active & Apparent Energy (Total), Run Hour, Auxiliary Interrupt, RPM
DG Input	: 230V AC (For DG models only)

## Output Specifications

Communication interface & protocol	: RS485 and MODBUS RTU
Communication Address	: 1 to 255
Transmission Mode	: Half duplex
Transmission Distance	: 500 meter maximum
Transmission Speed	: 9600(in bps)
Parity	: None
Stop Bits	: 1
Response Time	: 100ms (max and independent of bund rate)

## Auxiliary Supply Specifications

Supply Voltage	: 230V ( $\pm 10\%$ ) AC, 50 / 60Hz (Default) or 80-270V AC/DC (Optional) or 110V AC(Optional)
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## Settable Parameters

CT Primary	: 5-5000A AC(Programmable for any value)
CT Secondary	: 5A or 1A AC(Factory Settable)
PT Primary	: 100V to 500kV AC(Programmable for any value)
PT Secondary	: 100V to 500V(Programmable for any value)

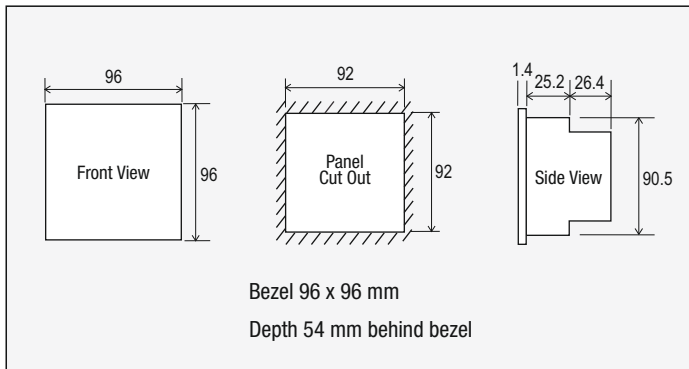
## Environmental Specifications

Temperature	: Operating : -10 <sup>o</sup> to 55 <sup>o</sup> C Storage : -20 <sup>o</sup> to 75 <sup>o</sup> C
Humidity (Non-Condensing)	: Upto 85% RH

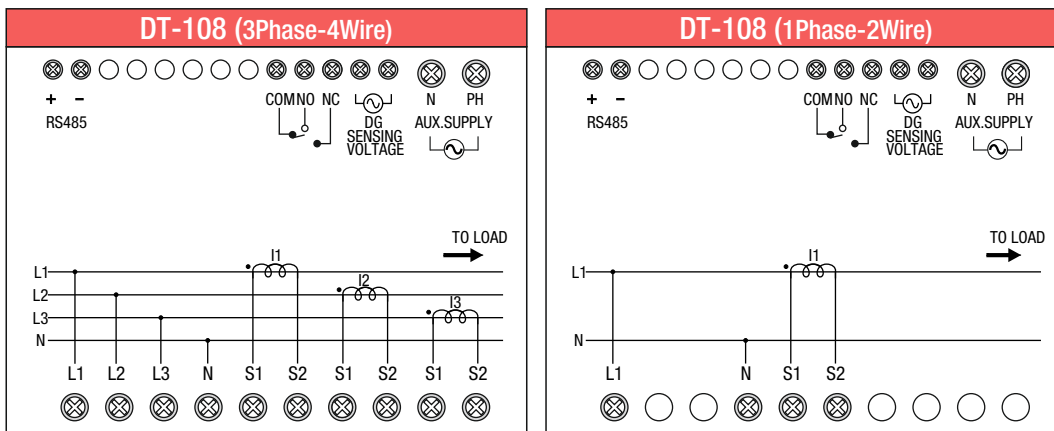
## Mechanical Specifications

Mounting	: Panel Mount
Size	: 96X96mm
Weight	: 300gms
Screw Tightening Torque	: 0.5 NM

**Mechanical Specifications**



**Connection Diagram**



**Ordering Information**

PRODUCT NAME	DESCRIPTIONS
DT108-3PH	MFM DT108 3PHASE
DT108-3PH-DG	MFM DT108 3PHASE DG
DT108-3PH-RS	MFM DT108 3PHASE RS485
DT108-3PH-AL	MFM DT108 3PHASE ALARM
DT108-3PH-DG-RS	MFM DT108 3PHASE DG RS485
DT108-3PH-DG-RS-AL	MFM DT108 3PHASE DG RS485 ALARM
DT108-1PH	MFM DT108 1PHASE
DT108-1PH-DG	MFM DT108 1PHASE DG
DT108-1PH-RS	MFM DT108 1PHASE Rs485
DT108-1PH-AL	MFM DT108 1PHASE ALARM
DT108-1PH-DG-RS	MFM DT108 1PHASE DG RS485
DT108-1PH-DG-RS-AL	MFM DT108 1PHASE DG RS485 ALARM

**NOTE: ETHERNET MODEL AVAILABLE ON REQUEST**



96 x 96mm

#### FEATURES

- 3 Phase (True rms) voltage
- 3 Phase (True rms) current
- 3 Phase Power factor
- 3 Phase Power (active, reactive, apparent)
- Frequency

#### Display Specifications

Display	: 3 rows, 7 segments LED Display
Digits	: 4 digits

#### Input Specifications

Electrical Connection	: 3Phase-4wire, 3Phase-3wire, 1Phase-2wire
Input Voltage Range	: 11 to 300V AC (Phase to Neutral) 19 to 519V AC (Phase to Phase)
Input Current Range	: Nominal 5A AC (Min-20mA, Max-6A)
Frequency	: 45 to 65Hz
Display Scrolling	: Automatic / Manual / Default
Power Consumption	: <8VA max
Accuracy	: Voltage (L-N / L-L) : $\pm 0.5\%$ of F.S. Current : $\pm 0.5\%$ of F.S. Power Factor : $\pm 1.0\%$ Electrical Frequency : $\pm 0.2\%$ Measuring Voltage >11V For L - L voltage > 35V Power (Active, Reactive, Apparent) : 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 / Average) Active power, Reactive & Apparent. power (Individual / Average), Run hour, RPM, Auxillary Interrupt

#### Output Specifications

Relay (Optional)	: COM-NO-NC@5A / 250V AC Single Relay
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#### Auxiliary Supply Specifications

Supply Voltage	: 230V AC ( $\pm 10\%$ ), 50/60 Hz or 110V AC ( $\pm 1.0\%$ )
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#### Settable Parameters

CT Primary	: 5-5000A AC (Programmable for any value)
CT Secondary	: 5A AC or 1A (Factory Settable)
PT Primary	: 100V to 500kV AC (Programmable for any value)
PT Secondary	: 100V to 500V AC (Programmable for any value)

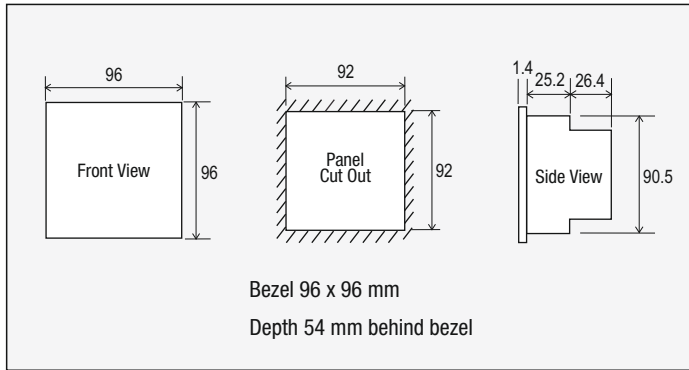
#### Environmental Specifications

Temperature	: Operating : $-10^{\circ}$ to $55^{\circ}$ C Storage : $-20^{\circ}$ to $75^{\circ}$ C
Humidity (Non-Condensing)	: Upto 85% RH

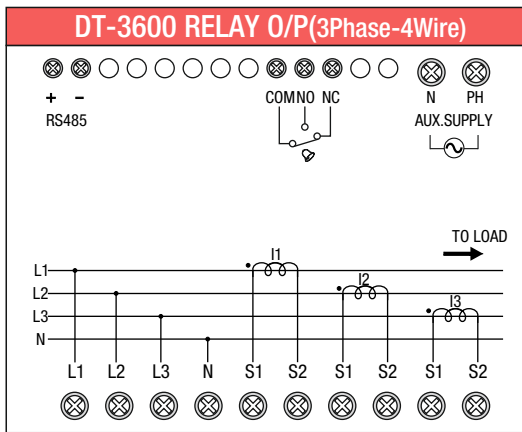
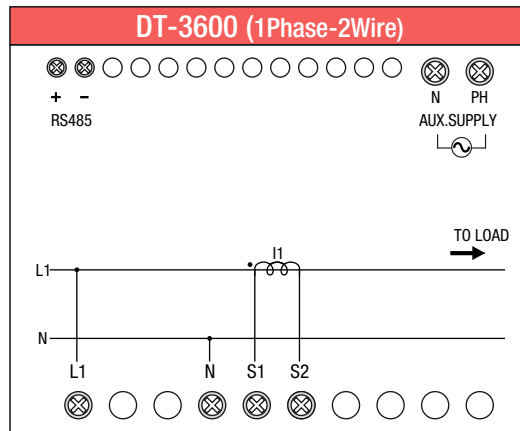
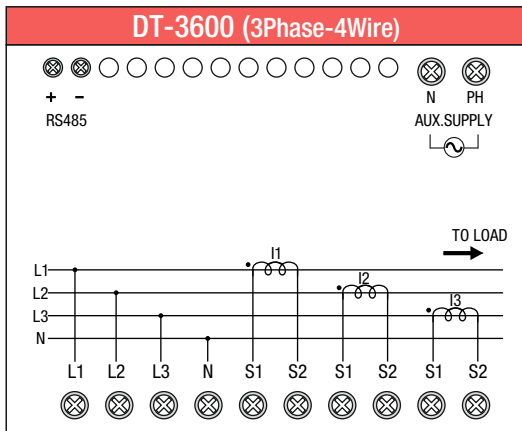
#### Mechanical Specifications

Mounting	: Panel Mount
Size	: 96X96mm
Weight	: 300gms
Screw Tightening Torque	: 0.5 NM

**Mechanical SPECIFICATIONS**



**Connection Diagram**



**Ordering Information**

Product Name	Discription
DT3600-3PH	MFM DT3600-3PHASE
DT3600-3PH-RS	MFM DT3600-3PHASE-RS485
DT3600-3PH-AL	MFM DT3600-3PHASE-ALARM
DT3600-3PH-AL-RS	MFM DT3600-3PHASE-ALARM-RS485
DT3600-3PH-RELAY O/P-AL	MFM DT3600-3PHASE-RELAY O/P ALARM
DT3600-3PH-RELAY O/P-AL-RS	MFM DT3600-3PHASE-RELAY O/P ALARM-RS485
DT3600-1PH	MFM DT3600-1PHASE
DT3600-1PH-RS	MFM DT3600-1PHASE-RS485
DT3600-1PH-AL	MFM DT3600-1PHASE-ALARM
DT3600-1PH-AL-RS	MFM DT3600-1PHASE-ALARM-RS485