

## Feature

- Economical multifunction power meter
- Suit for voltage distribution system up to 650kV
- Dual Source kWh phasetrac record seperately grid & generator supply
- 31st Harmonic analysis, THD
- One RS485, support MODBUS-RTU protocol
- Phase sequence adjustment
- 2 status input (standard)
- Alarm setpoint (optional)



## Basic Function

F-MPM100 measure and display real-time parameters:

- Voltage— $U_a, U_b, U_c, U_{ab}, U_{bc}, U_{ca}$ ,
- Voltage unbalance rate –  $UL-L$  unbal,  $UL-N$  unbal
- Current— $I_a, I_b, I_c, I_n$
- Current unbalance rate –  $I$  unbal
- Active power –  $P_a, P_b, P_c, \sum P$
- Reactive power –  $Q_a, Q_b, Q_c, \sum Q$
- Apparent power— $S_a, S_b, S_c, \sum S$
- Power factor— $PF_a, PF_b, PF_c, \sum PF$
- Frequency-- $F$
- Active energy— $kWh$
- Reactive energy–  $kvarh$
- Apparent energy -  $kVAh$
- Dual source kWh record seperately grid & generator supply (Import & export kWh)
- Demand and Max. record for  $I, P, Q, S$
- 31<sup>st</sup> harmonic, THD
- 2 DI, One RS485,

## Optional Function

- 2 Relay output

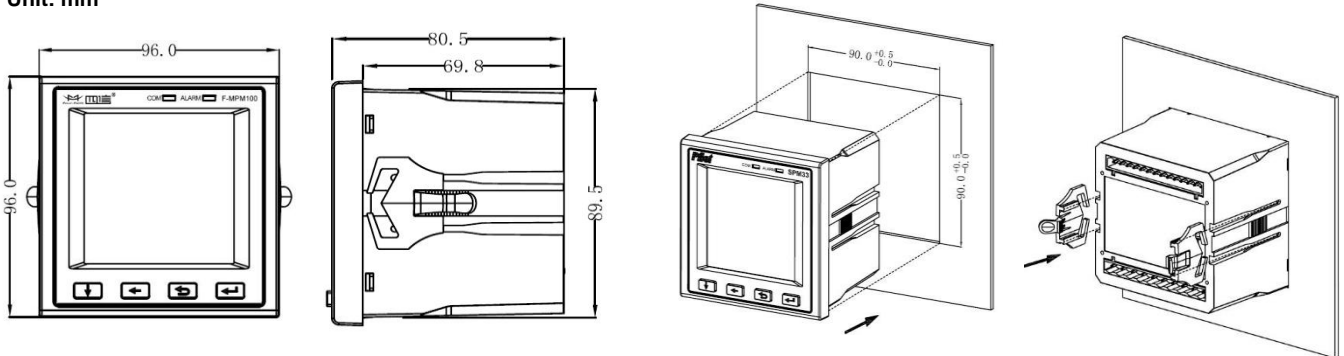
## Technical Specification

<b>Connection Mode</b>	3 phase 3 wires, 3 phase 4 wires	<b>Power Supply</b>	AC 85~265V or DC 100~300V	
<b>Metering</b>	True RMS, 1 sec refresh time	<b>Power loss</b>	<5VA	
<b>Input</b>	Rated current: 5A or 1A Rated voltage: 220/380V, 35Hz~65Hz	<b>Communication</b>	RS485 serial, support Modbus-RTU Baudrate: 4800, 9600, 19200bps Address: 1~247	
<b>Overload</b>	Current: 120% of rated, continuously Instantaneous current: 10 times/	<b>Dimension (L x W x H)</b>	Panel: 96 x 96 x 18 mm Cut-out: 89.5 x 89.5 x 69.8 mm (+0.5mm)	
	Low voltage system: Up to 400V(L-N) / 650V (L-L) High voltage system: Up to 650kV	<b>IP index</b>	IP54 (front panel) and IP20 (case)	
<b>Status input voltage</b>	2 channel active status input, less than 60V is open, more than 140V is closed, the maximum input is 300V	<b>Weight</b>	Approx. 500gr.	
<b>Relay output (optional)</b>	2 channels, Node capacity: 250Vac/5A	<b>Environment</b>	Normal operating temperature: -10°C ~ +55°C Operating temperature: -25°C ~ +55°C Storage temperature: -40°C ~ +70°C Humidity: 5%~95% non-condensing	
<b>Power frequency withstand voltage</b>	AC 2KV/minute		<b>Standard (EMC)</b>	Electrostatic discharge immunity test IEC 61000-4-2, Level 4 Radiated immunity test IEC 61000-4-3, Level 4 Electrical fast transient/burst immunity test IEC 61000-4-4, Level 4 Surge immunity test (1, 2/50μs ~ 8/20μs) IEC 61000-4-5, Level 4
<b>Insulation resistance</b>	≥ 100MΩ			
<b>Impulse withstand voltage</b>	5kV (peak), 1.2/50μs			

Parameter	Accuracy	Measuring Range
Voltage	0.5%	Line - line : 0 ~ 650V Line - Neutral : 0 ~ 400V
		PT primary side: up to 650KV PT secondary side: 100 - 400V (L-N) (Settable)
Current	0.5%	Each phase: 0 ~ 65,000A Zero sequence : 0 ~ 65,000A
Power factor	0.5%	-1~1
Active power	0.5%	0~ 99,999,999.9 W
Reactive power	1.0%	0~ 99,999,999.9W
Active energy	1.0%	0~ 99,999,999.9 kWh
Reactive energy	2.0%	0~ 99,999,999.9 kVarh
Three-phase voltage unbalance	class B	0%~100%
Three-phase current unbalance	class B	0%~100%
THD	class B	0%~100%

## Dimension & Installation

Unit: mm



## Order Information

F-MPM100--①--②

<b>R</b>	Two relay alarm output
<b>V1</b>	3×230/398V, 5A (support High voltage system up to 650KV, PT secondary settable )
<b>V2</b>	3×230/ 398V,1A

**Example:** Model No. F-MPM100-R-V1 indicates the device provide basic function, two relay alarm output, rated input 220/ 380V, 5A



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