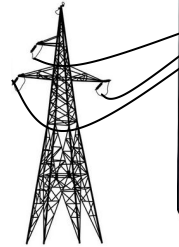
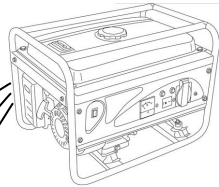


Feature

- 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)



Grid



Generator

Basic Function

SPM33 measure and display real-time parameters:

- Voltage—Ua, Ub, Uc, Uab, Ubc, Uca,
- Voltage unbalance rate – UL-L unbal, UL-N unbal
- Current—Ia, Ib, Ic, In
- Current unbalance rate –I unbal
- Active power – Pa, Pb, Pc, $\sum P$
- Reactive power –Qa, Qb, Qc, $\sum Q$
- Apparent power—Sa, Sb, Sc, $\sum S$
- Power factor—PFa, PFb, PFc, $\sum PF$
- 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
- 31st harmonic, THD
- 2 DI, One RS485,

Optional Function

- 2 Relay output

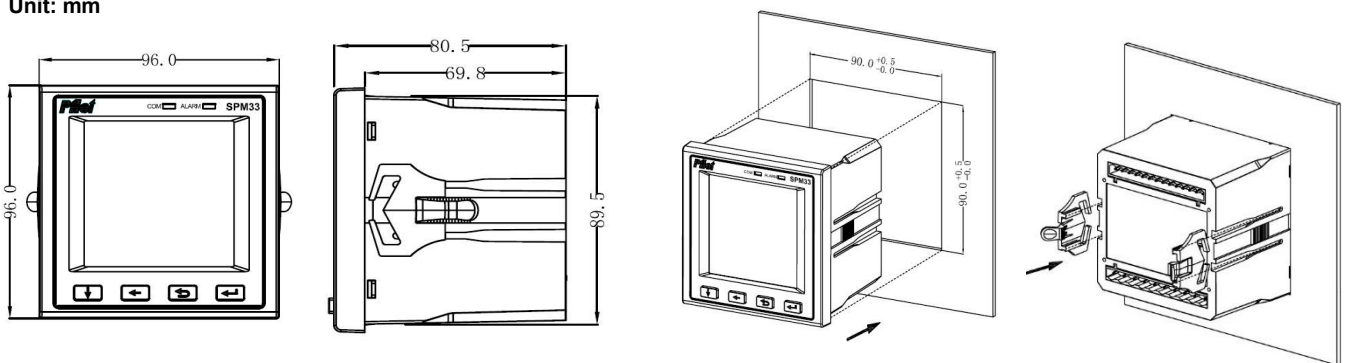
Technical Specification

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

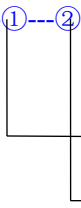
Parameter	Accuracy	Measuring Range
Voltage	0.5%	Line - line : 0 ~ 650V Line - Neutral : 0 ~ 400V
		PT primary side: up to 650KV PT secondary side: 100 - 400V (L-N) (Settable)
Current	0.5%	Each phase: 0 ~ 65,000A Zero sequence : 0 ~ 65,000A
Power factor	0.5%	-1~1
Active power	0.5%	0~ 99,999,999.9 W
Reactive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

SPM33


R	Two relay alarm output
V1	3×220/380V, 5A (support Hight voltage system up to 650KV, PT secondary settable)
V2	3×220/ 380V, 1A

Example: Model No. SPM33-R-V1 indicates the device provide basic function, two relay alarm output, rated input 220/ 380V, 5A

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Your representative