SPM33 Multifunction Power Meter

Feature

- Suit for voltage distribution system up to 650kV
  PT primary side & PT secondary side settable
- Dual Source kWh record seperately electricity
  base & generator supply
- 31st Harmonic analysis, THD
- One RS485, support MODBUS-RTU protocol
- Phase sequence adjustment
- 2 status input (standard)
- Alarm setpoint (optional)
- Bar chat display for harmonic

Dual Source kWh records

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, ∑P
- Reactive power –Qa, Qb, Qc, ∑Q
- Apparent power—Sa, Sb,Sc, ∑S
- Power factor—PFa, PFb, PFc, ∑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

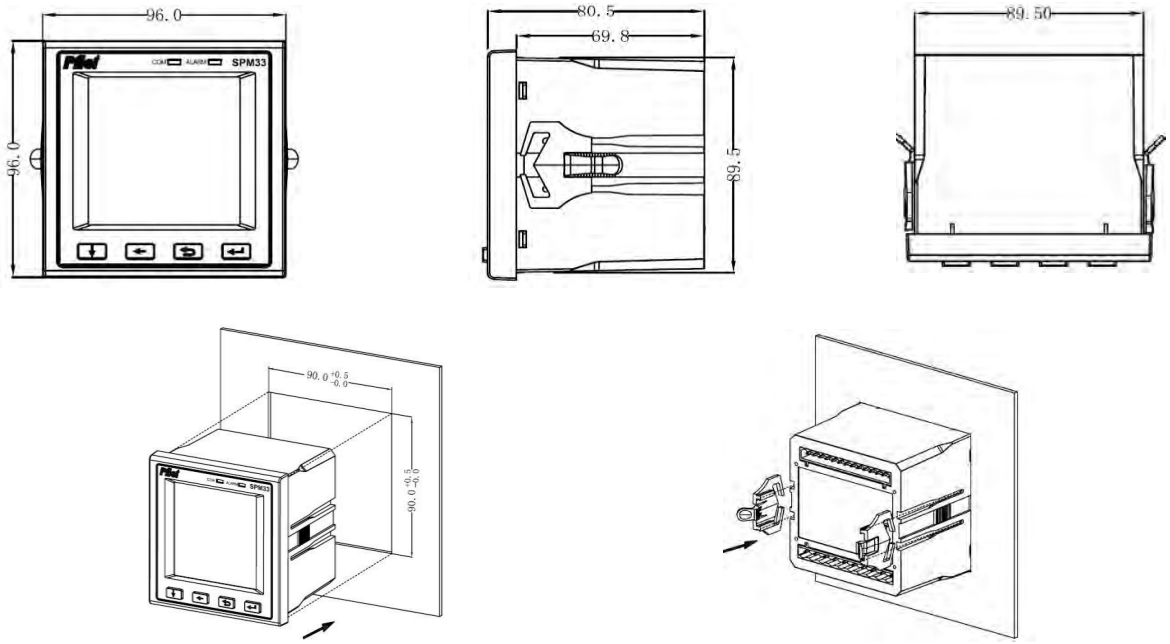
Connection Mode	3 phase 3 wires, 3 phase 4 wires
Metering	True RMS, 1 sec refresh time
Input	Rated current: 5A or 1A Rated voltage: 220/380V, 35Hz~65Hz
Overload	Current: 120% of rated, continuously Instantaneous current: 10 times/
	Low voltage system: Up to 400V(L-N) / 650V (L-L) High voltage system: Up to 650kV
Status input voltage	2 channel active status input,less than 60V is open,more than 140V is closed,the maximum input is 300V
Relay output (optional)	2 channels, Node capacity: 250Vac/5A
Power frequency withstand voltage	AC 2KV/minute
Insulation resistance	≥ 100MΩ
Impulse withstand voltage	5kV (peak), 1.2/50*uS*

Power Supply	AC 85~265V or DC 100~300V
Power loss	<5VA
Communication	RS485 serial, support Modbus-RTU Baudrate: 4800, 9600, 19200bps Address: 1~247
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)
IP index	IP54 (front panel) and IP20 (case)
Weight	Approx. 500gr.
Environment	Normal operating temperature: -10℃～+55℃ Operating temperature: -25℃～+55℃ Storage temperature: -40℃～+70℃ Humidity: 5%~95% non-condensing
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

Parameter	Accuracy	Measuring Range
Voltage	0.5%	Line - line ： 0 ~ 650V Line - Neutral ： 0 ~ 400V
		PT primary side: 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	0.5 % (for 5A input)	0~ 99,999,999.9 kWh
	1.0 % (for 1A input)	
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--①---②

R	Two relay alarm output
V1 V2	3×220/380V, 5A 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