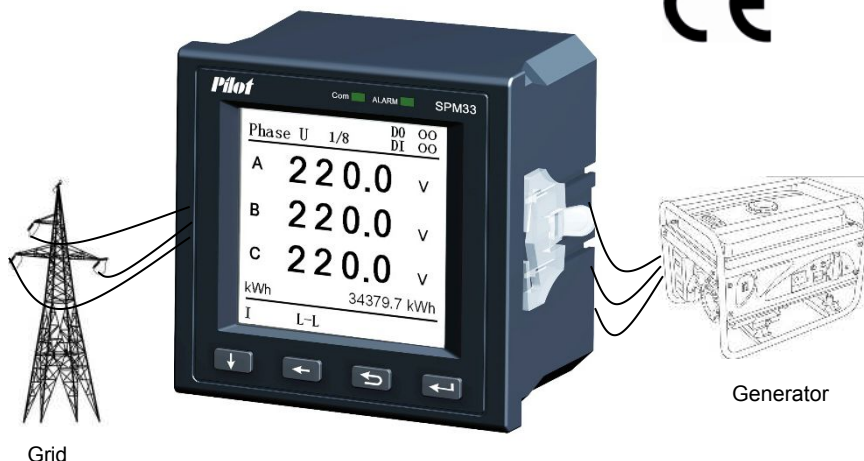


Feature

- Economical multifunction power meter
- Suit for voltage distribution system up to 650kV
- Dual Source kWh phasetrac record separately 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

SPM33 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 separately 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

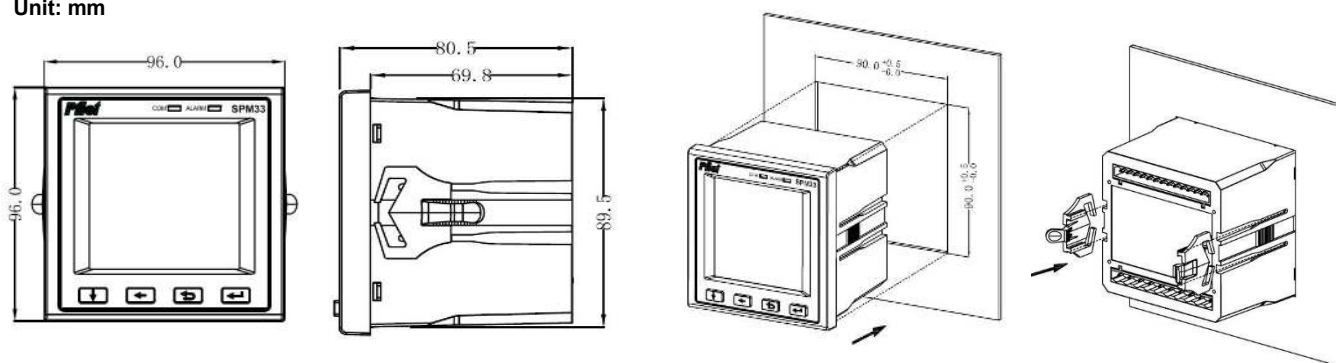
Technical Specification

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℃~+55℃ Operating temperature: -25℃~+55℃ Storage temperature: -40℃~+70℃ 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

SPM33-①-②

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

Pilot® ZHUHAI PILOT TECHNOLOGY CO., LTD.
PILOT (HENGQIN) CO., LTD.

Add: No. 15, Keji 6 Road, Chuangxin Haian, Tangjia Hi-tech Zone,
Zhuhai, Guangdong, China

Post Code: 519085

Tel: +86 756 3639029/ 3626166

Fax: +86 756 3629600/ 3629700

Email: overseamarket@pmac.com.cn

http://www.pmac.com.cn



Your representative