

Feature

- Suit for low-voltage distribution system below AC 400V (L-N)
- RS485/Modbus communication to conduct group network management and achieve automatic control
- Large dot matrix LCD.
- Class 0.5s and class 1 accuracy in kWh(optional)
- 2 channel active status input (standard)
- Alarm setpoint (standard)
- Up to 31st harmonic analysis, K factor, THD (standard)
- Bar chart display of current and voltage harmonics



Basic function

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 – $P_a, P_b, P_c, \Sigma P$
- Reactive power – $Q_a, Q_b, Q_c, \Sigma Q$

- Apparent power— $S_a, S_b, S_c, \Sigma S$
- Power factor— $PF_a, PF_b, PF_c, \Sigma PF$
- Frequency— F
- Active energy— kWh
- Reactive energy— $kvarh$
- Demand and Max. record for I, P
- 2 DI, RS485

Optional function

- 2 relay outputs (optional)

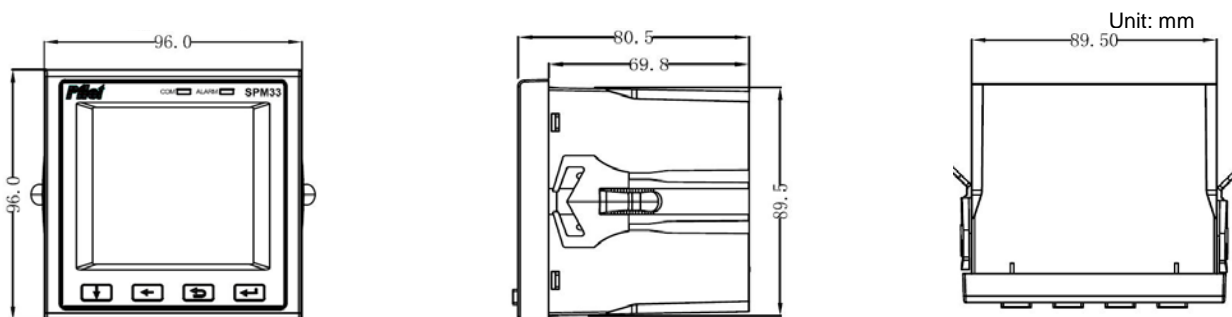
Technical specification

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

Accuracy of electrical parameters

Parameter	Accuracy	Measuring Range
Voltage	0.5%	Line - line : 0 ~ 650V Line - Neutral : 0 ~ 400V
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%

Dimensions



Installation



Order Information

SPM33 - ① - ②

R	Two relay alarm output
V1	3 × 220/380V, 5A
V2	3 × 220/ 380V ,1A

Example: Model No. SPM33-R-V1 indicates : the low-voltage three-phase multifunction power meter with rated measuring 220/380V 5A ,two channel active status input,optional two relay alarm output,