



Basic Function

- Suit for 110V, 120V, 220V, 230V, 240V AC low voltage system
- 7 +1 digits LCD display (9999999.9 kWh)
- Measure V, I, P, Q, S, PF, F, kWh, kvarh, Multi-tariff energy value
- Record historical energy for latest 31 days (per 15min.), latest 12 months and latest 10 years
- kWh accuracy class 1.0
- Support over-voltage timing, under-voltage timing, over-current timing function
- 2 LED indicates pulse (Settable for kWh or kvarh)
- LCD display prompt for phase sequence error
- 3 keys for programming, 35mm DIN rail installing, standard DIN ED5002
- One RS485 port, MODBUS or DL/T645 protocol (selectable)
- Standard: IEC62053-21/ 23

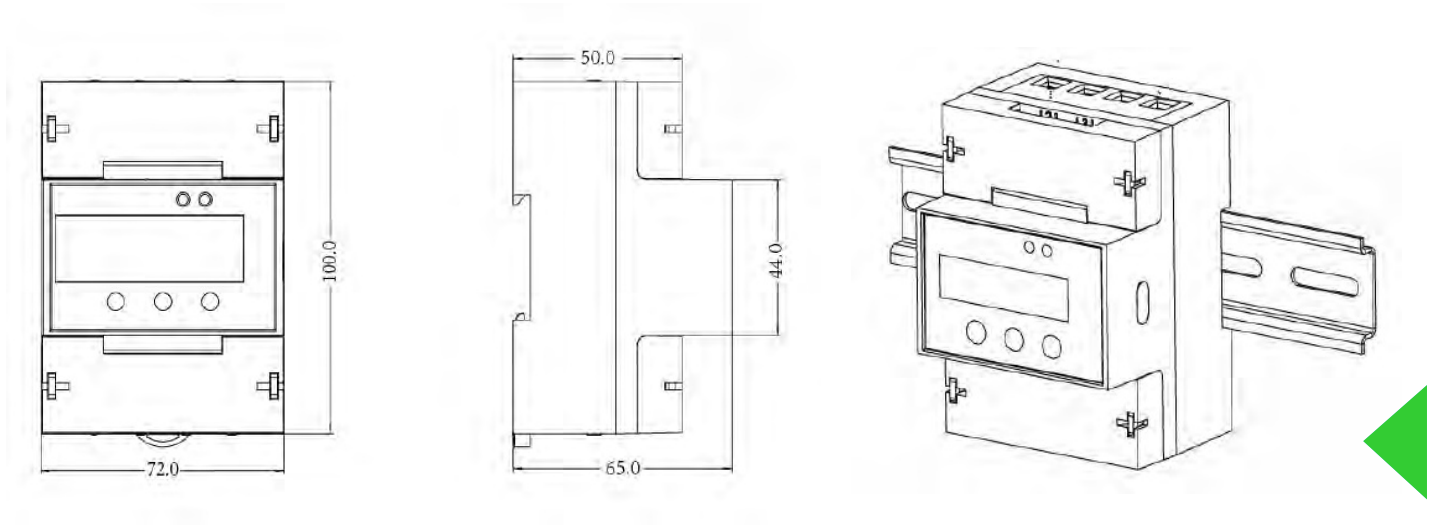


Technical Specification

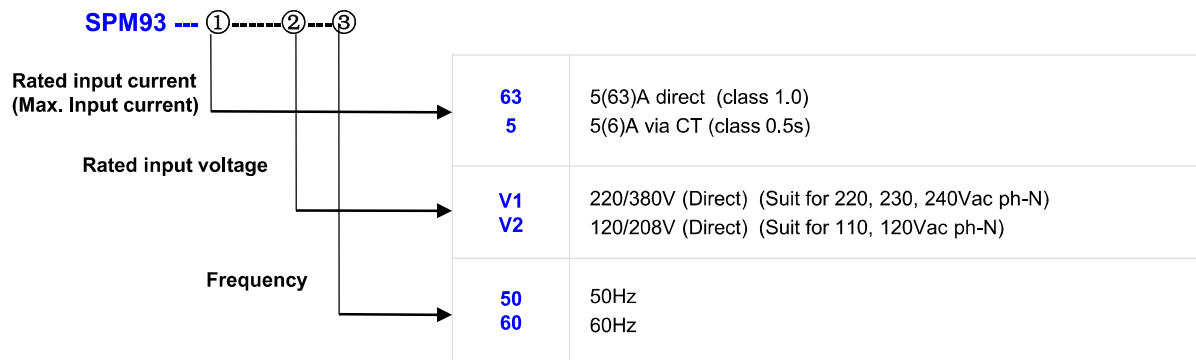
Rated current	Direct: 5(63) Or 5(6)A via CT	Connection mode	3-phase 4-wire
Rated voltage	AC 220V ph-N or 120V ph-N (Optional)	Pulse output	2 channels (Settable for kWh or kvarh)
Frequency	50/60Hz (Optional), range: 47~65Hz	Starting Current	0.4%Ib (direct connect), 0.2%Ib (via CT)
Burden	<2W	Power Frequency withstand voltage	2kV
Power supply	Self supply (Note: RS485 won't work, when connect 1 phase,) For 220Vac (L-N), range: 184~276Vac For 120Vac (L-N), range: 96~144V	Accuracy	kWh accuracy: class 0.5s or class 1.0
Communication	RS485 serial, MODBUS-RTU or DL/T645 Protocol Baud rate: 2400, 4800, 9600 Address: 1~247	Pulse constant	1000
Environment	Operating temperature: -20°C~ +55 °C Storage temperature: -40°C~ +70 °C Humidity: 5%~95% non-condensing	Dimension	72*100*65mm (4 module)
		Standard (EMC)	Electrostatic discharge immunity test IEC 61000-4-2, Level 4 Radiated immunity test IEC 61000-4-3, Level 3 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 Conducted emission EN55022, Class B Radiated emission EN55022, Class B

Parameter	Accuracy	Resolution	Measuring Range	
Display data, can also be read via MODBUS	Voltage	0.2%	0.01V	For 220Vac (L-N), range: 184~276Vac For 120Vac (L-N), range: 96~144V
	Current	0.2%	0.001A	Direct: 5(63), Via CT: 5(6)A
	Active power	0.5%	0.1W	0~1MW
	Power factor	0.5%	0.001	-1.000~+1.000
	Frequency	0.01	0.01Hz	47~65Hz
	Active energy	Class 1 for 5(63)A	0.1kWh	0~9999999.9 kWh
		Class 0.5s for 5(6)A		
Reactive energy	Class 2	0.1kvarh	0~9999999.9 kvarh	
Only can be read via MODBUS	Reactive power	1.0%	0.1Var	0~1Mvar
	Apparent power	0.5%	0.1VA	0~1MVA

Dimension & Installation



Order Information



Example 1:

Model No. SPM93-63-V1-50, which indicates the device provides basic function, accuracy class 1, rated current is 5(63)A , provides TOU (Multi-tariff) function and rated voltage input is 220/380V, 50Hz