

Features



- Real-time measure 1 to 4 circuit DC voltage, current, power , kWh
- Dual-direction energy data, multi-tariff energy data
- One DI, one pulse output
- One RS485, MODBUS-RTU protocol
- Optional dual RS485
- Optional 4G (LTE) wireless communication, MQTT, HTTP protocol
- 35mm DIN rail installing, standard DIN ED5002

Technical Specification

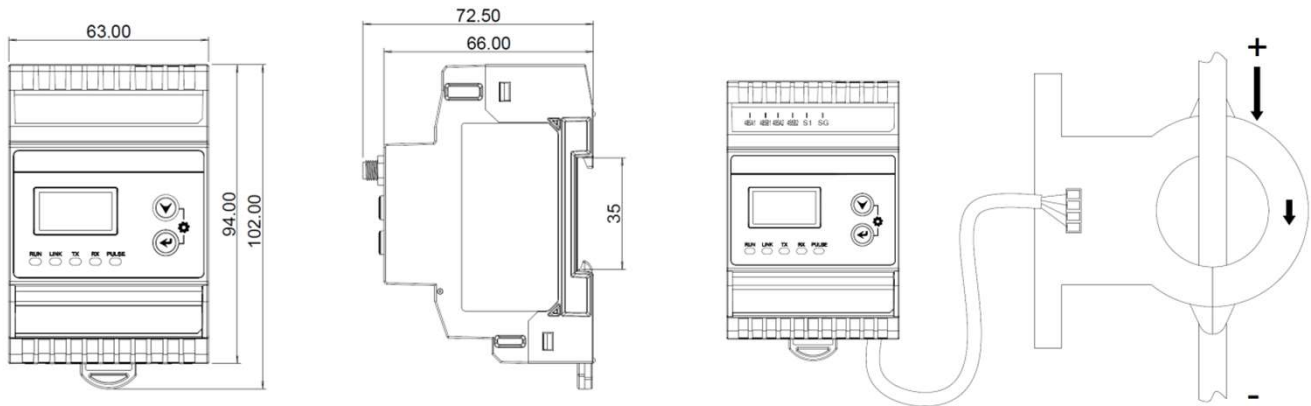
Accuracy	Class 1
Power supply voltage	DC48V, range: DC36V~72V
Power consumption	<1W
Rated Voltage DC	DC 48V, range: 2~1000V
Rated Current DC	12±8mA via hall sensor
Starting Current	0.002lb
Digital Input	Wet contact, DC 48V
Pulse output	1 channels, pulse width: 80ms
Pulse Constant	1000imp/ kWh

Communication	1 or 2 RS485 port, MODBUS-RTU
	Address: 1~247
	Baud rate: 1200, 2400, 4800, 9600, 19200, 38400bps
LTE Wireless	LTE-FDD B1/B3/B5/B8 LTE-FDD B34/B38/B39/B40/B41
LoRa Wireless	470-510Mhz (customized model)
Dimension (L*W*H)	102*63*72.5mm
IP index	IP 20
Environment	Operating temperature: -25°C~ +60 °C Max. Operating temperature: -40°C~ +70 °C

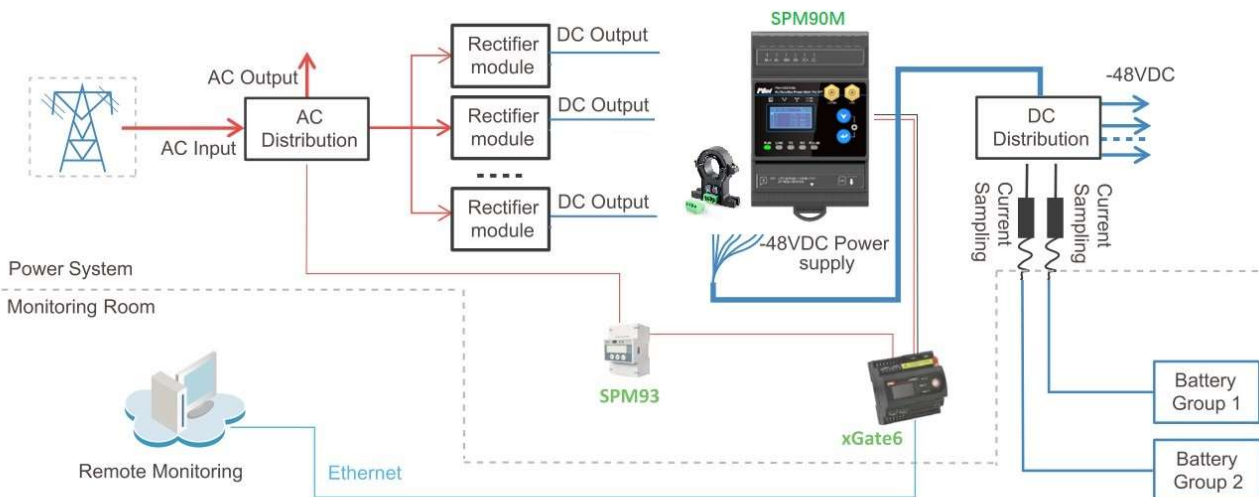
EMC Standard	Electrostatic Discharge Immunity Test	IEC61000-4-2:2001
	RF Electromagnetic Field Immunity testing	IEC61000-4-3:2002
	Electrical fast transient immunity test	IEC61000-4-4:2006
	Surge immunity test	IEC61000-4-5:2005
	Injected Current Immunity Test	IEC61000-4-6:2006
	Electromagnetic emission limit	CISPR22: 2006
	Voltage sag and short-time interruption Immunity testing	Passed

Parameter	Accuracy	Resolution	Measuring Range
Voltage	0.2%	0.001V	10~1000V
Current	0.2%	0.001A	0~2000A
Power	0.5%	0.001W	0~2000kW
Energy	Class 0.5	0.001kWh	0~99999999.999 kWh

Dimension & Installation



Typical Connection



Order Information

SPM90M -- ① -- ②	N	Basic function (1 RS485+ 1 Digital input + 1 Pulse output)
	Z	Dual RS485
	4G	LTE (4G) wireless communication
	HOS	Measure 1 circuit
	4HOS	Measure 4 circuits