

## Basic Function



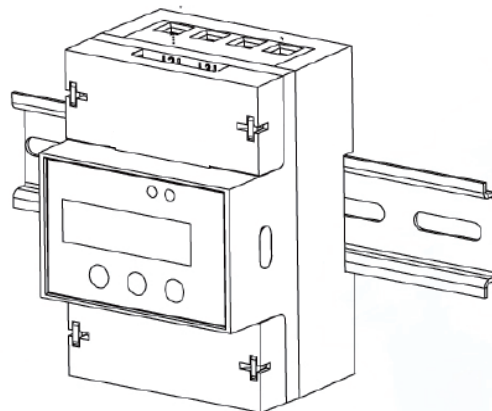
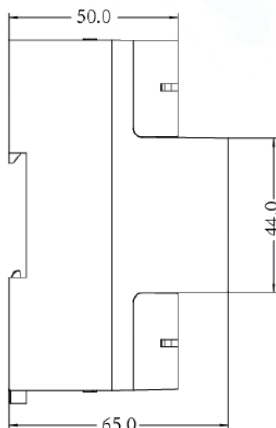
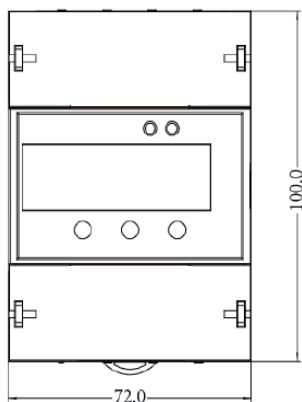
- Suit for 110V, 120V, 220V, 230V, 240V AC low voltage system
- 7 +1 digits LCD display (9999999.9 kWh)
- Measure U, I, P, Q, S, PF, F, kWh, kvarh, Multi-tariff energy value
- Record freeze energy for per 15 min/day
- kWh accuracy: 5(6)A class 0.5s, 5(63)A class 1.0
- Support over-voltage timing, under-voltage timing, over-load 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
- Record historical energy for latest 31 days, latest 12 months

## Technical Specification

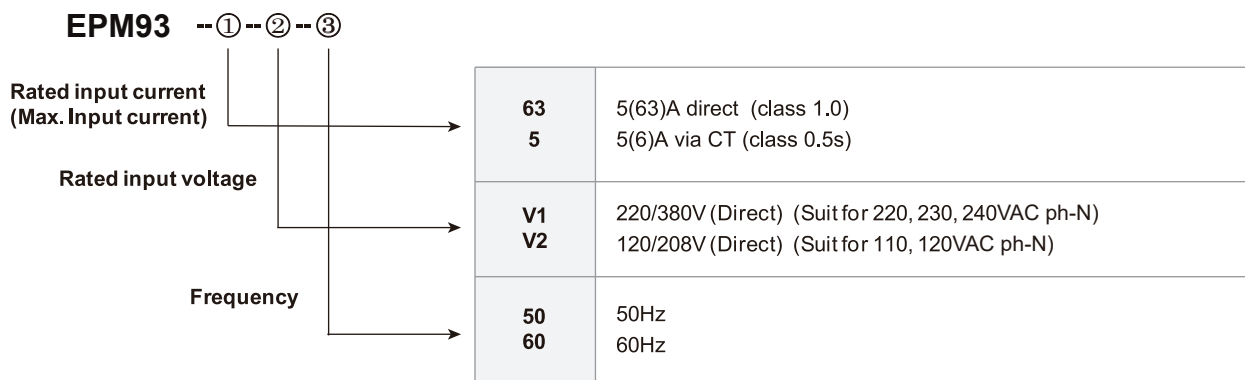
<b>Rated current</b>	Direct: 5(63)A Or 5(6)A via CT	<b>Connection mode</b>	3P/4W
<b>Rated voltage</b>	AC 220V ph-N or 120V ph-N (Optional)	<b>Pulse output</b>	2 channels (Settable for kWh or kvarh)
<b>Frequency</b>	50/60Hz (Optional), range: 47~65Hz	<b>Starting Current</b>	0.4%Ib (direct connect), 0.2%Ib (via CT)
<b>Power consumption</b>	<2W	<b>AC voltage tests</b>	4kV
<b>Power supply</b>	Self supply (Note: RS485 won't work, when connect 1 phase, ) For 220VAC (L-N), range: 184~276VAC For 120VAC (L-N), range: 96~144VAC	<b>Accuracy</b>	kWh accuracy: class 0.5s or class 1.0
<b>Communication</b>	RS485 serial, MODBUS-RTU or DL/T645 Protocol Baud rate: 2400, 4800, 9600 Address: 1~247	<b>Pulse constant</b>	400imp/kWh for 5(63)A 6400imp/kWh for 5(6)A
<b>Environment</b>	Operating temperature: -20°C~+55°C Storage temperature: -40°C~+70°C Humidity: 5%~95% non-condensing	<b>Dimension</b>	72*100*65mm (4 module)
		<b>Wire Diameters</b>	7mm x 7mm ( 16mm <sup>2</sup> )
		<b>Standard (EMC)</b>	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	0.5%	0.01V	For 220Vac (L-N), range: 184~276Vac For 120Vac (L-N), range: 96~144V	
	Current	0.5%	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**



**For example:** EPM93-63-V1-50, which indicates the device providing basic function, accuracy class 1, rated current is 5(63)A, TOU (Multi-tariff) function and rated voltage input is 220/380V, 50Hz.