

DFPM93 AC Three Phase Din-Rail Energy Meter

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(6)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

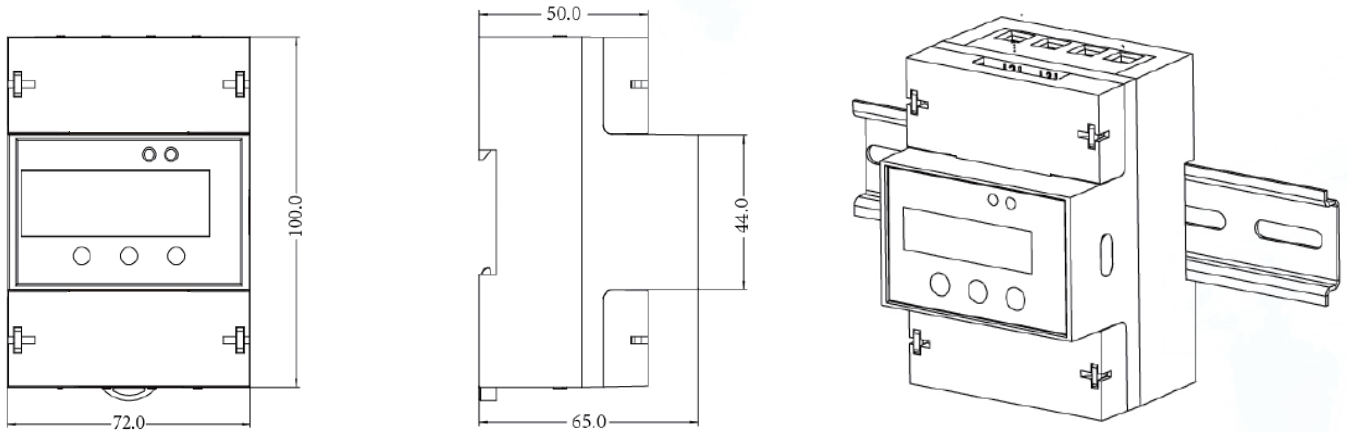
Rated current	Direct: 5(63)A Or 5(6)A via CT	Connection mode	3P/4W
Rated voltage	AC 220V ph-N or 120V ph-N (Optional)	Pulse output	2 channels (Settable for kWh or kvarh)
Frequency	50/60Hz (Optional), range: 47~65Hz	Starting Current	0.4%Ib (direct connect), 0.2%Ib (via CT)
Power consumption	<2W	AC voltage tests	4kV
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: 96~144VAC	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	400imp/kWh for 5(63)A 6400imp/kWh for 5(6)A
Environment	Operating temperature: -20℃~+55℃ Storage temperature: -40℃~+70℃ Humidity: 5%~95% non-condensing	Dimension	72*100*65mm (4 module)
		Wire Diameters	7mm x 7mm (16mm ²)
		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	0.5%	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

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Dimension & Installation

Unit: mm



Order Information

DFPM93 -- ① -- ② -- ③

Rated input current (Max. Input current)	63 5	5(63)A direct (class 1.0) 5(6)A via CT (class 0.5s)
Rated input voltage	V1 V2	220/380V (Direct) (Suit for 220, 230, 240VAC ph-N) 120/208V (Direct) (Suit for 110, 120VAC ph-N)
Frequency	50 60	50Hz 60Hz

For example: DFPM93-63-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.