

Datasheet

- Three phase 100A direct fed
- MID B+D certified
- Accuracy class 1 (Active Energy)
- Bi-directional measurement for kW and kWh
- Configurable pulse output
- RS485 Modbus RTU
- Multi-parameter measurement
- Resettable energy counter

SDM72D-M is a three phase energy monitoring solution with a configurable pulse output and RS485 RTU Modbus port. This product will measure and display multi-parameters like total active energy(kWh), import and export power (watts) / energy (kWh) , current, voltage, frequency, power factor, etc. Housed for DIN rail mounting, IP51 protection and direct connection up to 100A. Certified in the UK according to EU directive 2014/32/EU. MID certificate number 0120 / SGS0213.



Specification Table

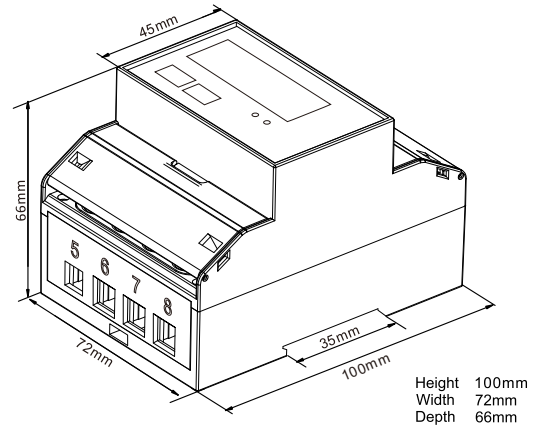
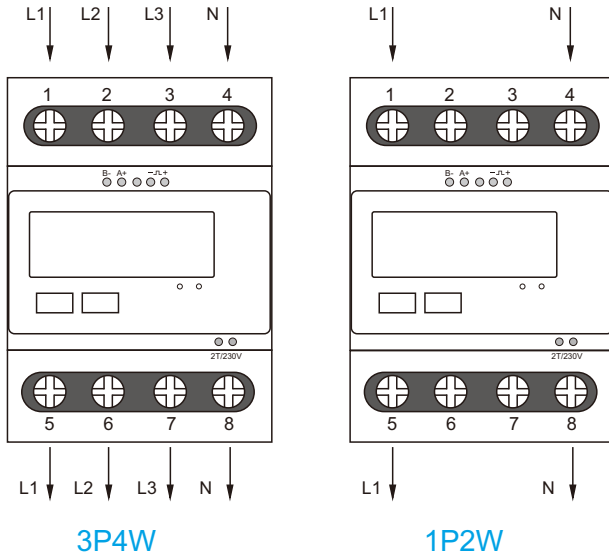
Specification	
Nominal voltage(Un)	3x230/400 V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Basic current (Ib)	10A
Maximum rated current (Imax)	100A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50Hz for MID; 50/60Hz for non-MID
Power consumption per phase	≤ 2W/10VA
Pulse output	Configurable (default: 1000imp/kWh)
Display	LCD
Max reading	999999.9 kWh

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600/19200bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

Performance criteria	
Operating humidity	≤ 90%, no condensing
Storage humidity	≤ 95%, no condensing
Operating temperature	-25°C - +55°C/-40°C - +70°C(optional)
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

Wiring Configuration

Dimension Drawing



*Note: current reverse version available

Ordering Options

Meter Type	Description of Meter
SDM72D-M-1	1P2W, 3P4W, Measures active energy & power Bi-directional measurement IMP& EXP Resettable partial energy, Pulse output, RS485 Modbus RTU, Max.100A direct connection, Accuracy better than class 1/B.
SDM72D-M-2	1P2W, 3P4W 3x230(400)V, 0.5~10(100)A, 50/60Hz, Active energy (kWh), Current / Voltage / Power per phase, Total Power, IMP & EXP energy, Pulse output and RS485 Modbus RTU, 100A Direct load, Accuracy better than 1/B, 72mm 4 module width, Din rail mounting.
SDM72D-M-2T	1P2W, 3P4W 3x230(400)V, 0.5~10(100)A, 50/60Hz, Dual Source, Active energy (kWh), Current / Voltage / Power per phase, Total Power, IMP & EXP energy, Max. current demand, Max. active power demand, Pulse output and RS485 Modbus RTU, 100A Direct load, Accuracy better than 1/B, 72mm 4 module width, Din rail mounting.

Conformity References

Electromagnetic Compatibility: EN 61326-1:2013 & EN 61326-2-3:2013

Low Voltage Directive: EN 61010_1:2010+A1:2019 & EN 61010-2-30-2010

Mid Directive: 2014/32/EU

For more information on these products, please contact our sales team on 86 0573 83698881 or email sales@eastrongroup.com

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