

Datasheet

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

SDM72D-M series is a three phase energy monitoring solution with a configurable pulse output and RS485 RTU Modbus port. This product measures and displays 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 Netherlands according to EU directive 2014/32/EU. MID certificate number MID T12831.



Specification Table

Specification	
Nominal voltage(Un)	3x230/400 V ac
Operational voltage	100-277V AC (L-N); 100-480V AC (L-L)
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Current input	0.5-10(100)A
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	50/60Hz
Power consumption per phase	≤ 2W/10VA
Display	LCD
Max reading	999999.9 kWh

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
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	-40°C - +70°C
Storage temperature	-40°C - +80°C
Reference temperature	23°C± 2°C
International standard	EN IEC 62052-11:2021/A11:2022 / EN50470-3:2022
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 front panel; IP20 whole meter
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

Pulse output	
Pulse output type	Optocoupler psaaive pulse outputs
Pulse Output 1	Configurable
Pulse width 1	200/100/60ms(default 35mS)
Pulse LED	1000imp/kWh
Pulse width	100mS

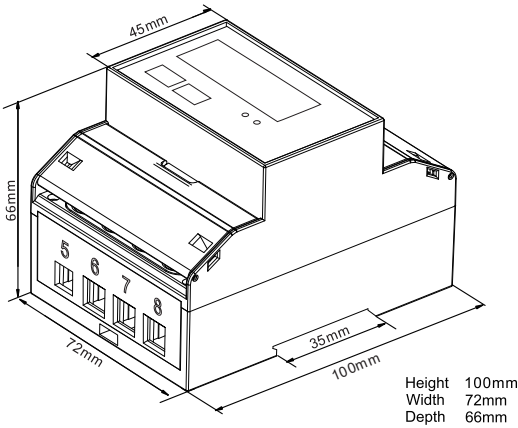
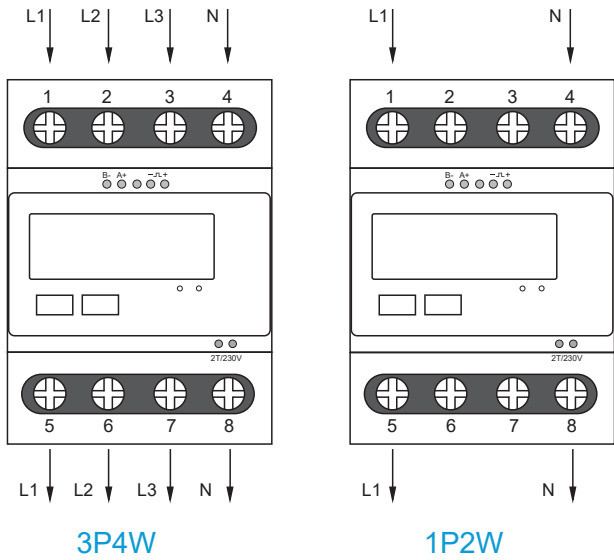
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Datasheet

Wiring Configuration

Dimension Drawing



*Note: current reverse version available

Ordering Options

Meter Type	Description of Meter
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 Class 1/B, 72mm 4 module width, Din rail mounting.
SDM72D-M-2T	1P2W, 3P4W 3x230(400)V, 0.5~10(100)A, 50/60Hz, 2 Tariffs, 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 Class 1/B, 72mm 4 module width, Din rail mounting.

Conformity References

Measurement category: IEC 61010-1 CAT III
Current input: Direct connect
Over-voltage category: CAT III
Dielectric withstand: IEC 61010-1 double insulated, IEC 62052-31:2015
Protective class: II
EMC: EN 61326-1:2021 & EN 61326-2-3:2021, EN IEC 62052-11:2021/A11:2022
Low Voltage Directive: EN 61010-1:2010+A1:2019 & EN IEC 61010-2-030:2021+A11:2021, IEC 62052-31:2015
MID Std: EN 50470-3:2022 and IEC / EN IEC 62052-11:2021/A11:2022, IEC 62052-31:2015

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