

Datasheet

- Three Phase 100A Direct Fed
- MID B+D Certified
- Accuracy Class 1 (Active Energy)
- Bi-directional Measurement for kW and kWh (SDM72BI)
- Fixed Pulsed output
- RS485 Modbus option (SDM72D-M)
- Active Energy and Power Measurement
- Resettable energy counter
- Low cost

The SDM72DR/BI is a entry level three-phase energy monitoring solution with a fixed pulsed output or RS485 RTU Modbus (SDM72D-M) This product will only measure and display total active energy (kWh) and Power (Watts) with optional partial reset energy (SDM72DR) Or the Bi-directional version which will read Import/Export and Total Active Energy (kWh) (SDM72BI).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	
Model	SDM72D/BR/BI
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	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	999999.9 kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
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

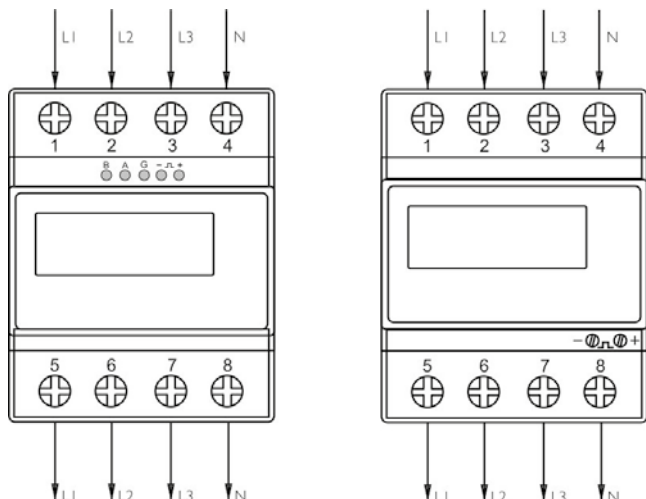
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

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Wiring Configuration

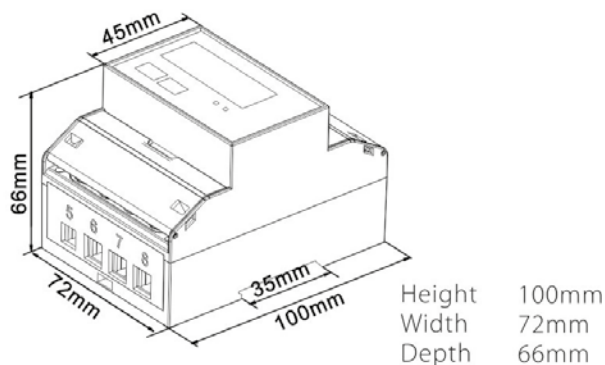


SDM72D-M

SDM72DR

SDM72BI

Dimension Drawing



Ordering options

Meter Type	Description of Meter
SDM72DR	3PH, 3X230(400)V,0.5~10(100)A,50/60Hz, Active energy (kWh) + active power (W)Resettable partial energy, Pulse output, 100A direct load, Class 1.0 Accuracy, 72mm 4 module width, Din rail mounting.
SDM72BI	3PH, 3X230(400)V,0.5~10(100)A,50/60Hz, Active energy (kWh) + active power (W), Bi-directional measurement (Import & export), Pulse output, 100A direct load, Class 1.0 Accuracy, 72mm 4 module width, Din rail mounting.
SDM72D-M	2P3W, 3P4W , Measures active energy & power Bi-directional measurement IMP& EXP Resettable partial energy Pulse output RS485 Modbus RTU Max.100A direct connection, Accuracy better then class 1/B.
SDM72D-M V2	2P3W, 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.

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

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