

SDM18 Series -M/-MB

100A Direct connect

- Measures kWh, kVAh, kW, kVA, PF, Hz, dmd, V, A, etc.
- Bi-directional measurement IMP & EXP
- RS485 Modbus RTU
- Din rail mounting 35mm
- 100A direct connection
- Better than Class 1 accuracy
- MID Certified

This document provides operating, maintenance and installation instructions of SDM18 Series. The meter measures and displays the characteristics of single phase two wire application. It can handle direct current connection up to 100A.

The meter provides measurement for voltage, current, power, frequency, power factor and energy information. An RS485 or Mbus port was provided for remote communication and configuration.



Model table

Model	Current Input	Communications	MID
SDM18-M	0.5-10(100)A	RS485 Modbus	•
SDM18-MB	0.5-10(100)A	M-Bus EN13757-3	•

Specification table

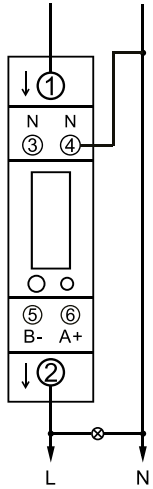
Specification	
Voltage AC (Un)	230V
Voltage range	176-276V AC
Base Current (Ib/Iref)	10A
Max. Current (Imax)	100A
Mini Current (Imin)	0.5A
Starting current	0.4% of Ib
Power consumption	<2W/10VA
Frequency	50Hz (MID)
	50/60Hz (non-MID)
AC voltage withstand	4KV for 1 minute
Impulse voltage withstand	6KV~1.2uS waveform
Overcurrent withstand	30Imax for 0.01s
Pulse LED	1000imp/kWh
Display	LCD with white backlit
Max. Reading	99999.9kWh

Accuracy	
Voltage	0.5% of range maximum
Current	0.5% of nominal
Frequency	0.2% of mid-frequency
Power factor	1% of Unity
Active power	1% of range maximum
Reactive power	1% of range maximum
Apparent power	1% of range maximum
Active energy	Class 1 IEC62053-21
	Class B EN50470-1/3
Reactive energy	Class 2 IEC 62053-23

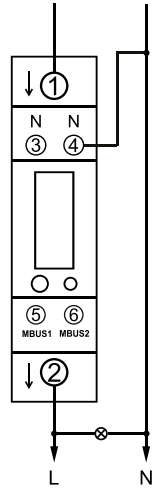
Environment	
Operating temperature	-40°C to +70°C
Storage and transportation temperature	-40°C to +70°C
Reference temperature	23°C±2°C
Relative humidity	0 to 95%, non-condensing
Altitude	Up to 2000m
Warm up time	3s
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2

Mechanics	
Din rail dimensions	18x90x66 (WxHxD) DIN 43880
Mounting	DIN rail 35mm
Ingress protection	IP51 (indoor)
Material	Self-extinguishing UL94V-0

Wiring Configuration

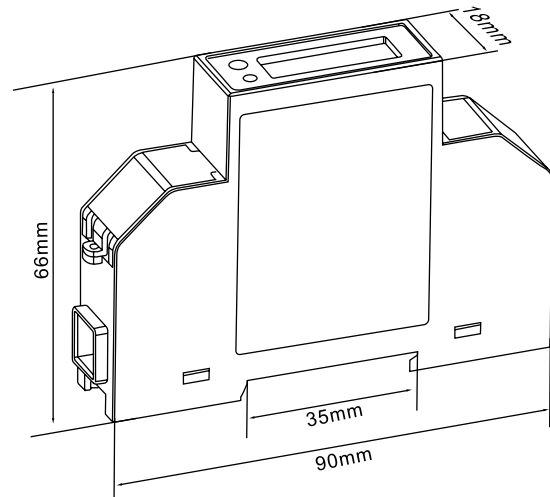


SDM18-M

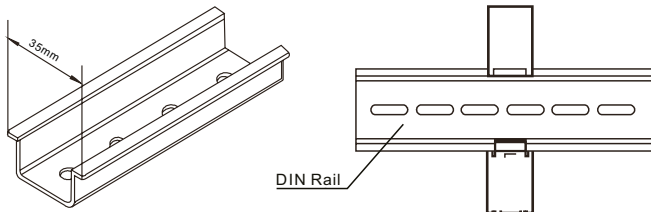


SDM18-MB

Dimension Drawing



installation



Ordering options

Meter Type	Description of Meter
SDM18-M	Total kWh, Import kWh, Export kWh, Voltage, Current, Active power, Frequency, Power factor, Address, Baudrate, Parity, Software version
SDM18-MB	Total kWh, Import kWh, Export kWh, Voltage, Current, Active power, Frequency, Power factor, Address, Baudrate, Parity, Secondary address high, Secondary address low, Software version

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