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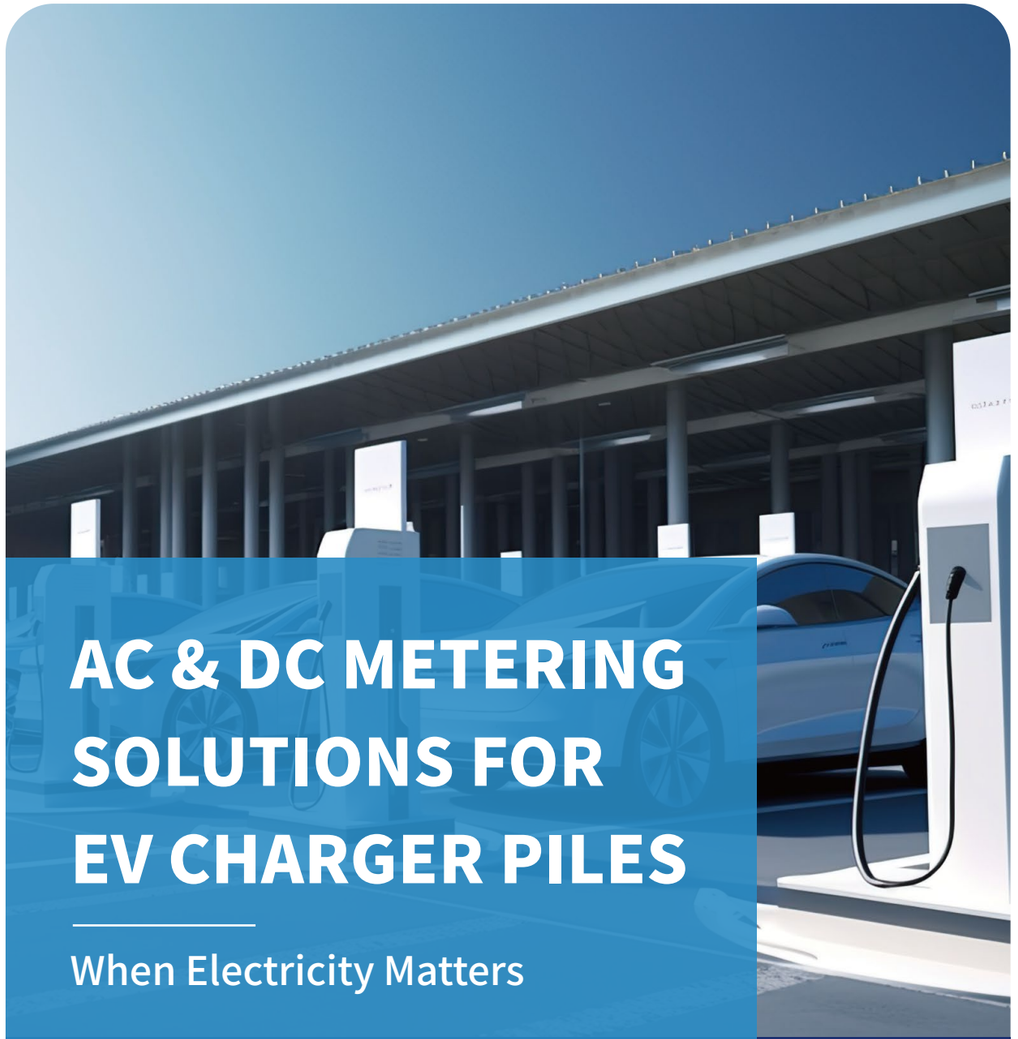


AC & DC METERING SOLUTIONS FOR EV CHARGER PILES

When Electricity Matters

EV Charger Metering

About us

Eastron Electronic Co., Ltd. headquartered in Jiaxing, China, Eastron Electronic is a leading high- tech manufacturer of electricity products and energy measurement solutions.

Over the years, we have developed a wide range of electricity meters, sensors, communication modules, and management systems. Our experienced R&D teams in China and the UK, supported by collaborations with leading institutions, drive continuous innovation, ensuring our products remain competitive.

To ensure product reliability, Eastron has set up its own professional lab that performs EMC, LVD, accuracy, and environment tests according to IEC, EN, GB, and UL standards. Holding over 300 patents, we are certified as a "High-tech Enterprise" and "R&D Centre," operate under ISO 9001, and have SGS MID approval and UL certification.

Eastron partners with customers globally, providing high- quality products and high- end technical support. Our solutions serve clients in over 60 countries across Europe, Asia- Pacific, the Americas, the Middle East, and Africa.

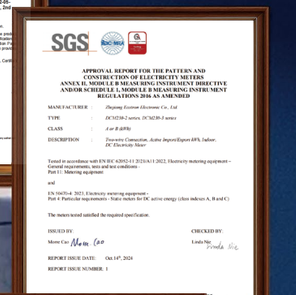
Company Culture
【Vision】Global Leader in Micro Smart Metering
【Philosophy】Enabling Sustainable Growth for Customers
【Mission】Making Every kWh Smarter, Safer, and More Accurate
【Value】Integrity、Pragmatism、Innovation、Progress

Annual Production Capacity
5000000+

Patent
300+

Export Country
60+

MID UL CE SAA EN18031 RED PTB LNE



EV CHARGER METERING

Charging stations supply power for plug-in electric vehicles. With the rapidly growing EV market, demand for charging stations is expanding significantly in both residential and commercial sectors. Accurate energy measurement is critical. Users and operators need reliable monitoring as charging costs are added to utility bills. High-accuracy meters are essential for billing authentication and ensuring customer trust in fair and stable measurement.

Eastron provides certified metering solutions for both common charger types: AC and DC charging stations. MID, UL, LNE and PTB certifications are available.

DC EV CHARGER METERING

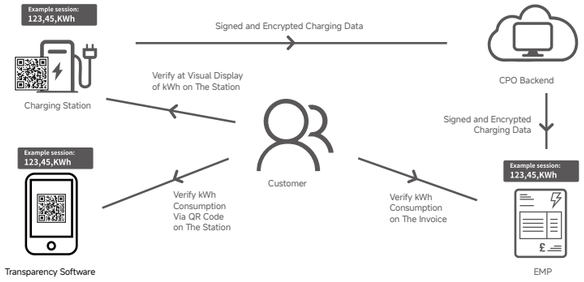
DCM6 & DCM-D

DC EV Charger Metering

MID CE PTB LNE

- 150~1000V DC
- Up to 650A
- OCMF 1.2.0 Compliance
- RS485 Modbus RTU
- Accuracy Class 1 or Class B
- Cable Loss Calculation
- Charging Duration Monitoring
- 225000+ Transaction Records
- 3000+ Events Records

How it Works



EMP: E-Mobility Provider
CPO: Charge Point Operator
OCMF: Open Charge Metering Format

DCM6 Technical Specification

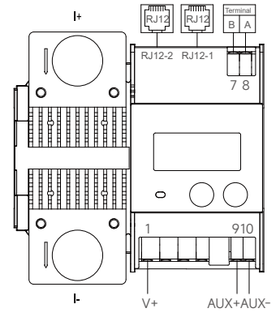
Electrical Characteristics	DCM6-650	DCM6-200
Voltage Range	150~1000V DC	
Aux. Power Supply	12~36V DC	
Current Range	6.5~130(650)A	1~40(200)A
Voltage Circuit Power Consumption	< 0.5W@Un	
Current Circuit Power Consumption	0.12W at Imax	
Aux. Power Supply Power Consumption	< 2W	
Display Digitals	9999999.9999 kWh	
Performance Criteria		
Operating Temperature	-40°C~+80°C	
Storage Temperature	-40°C~+85°C	
Operation Humidity	≤90%RH, non-condensing	
Storage Humidity	≤95%RH, non-condensing	
Altitude	≤ 2000m	
Accuracy		
Active Energy	Class 1 IEC62053-41 ; Class B EN50470-4	
Voltage	±0.5%	
Current	±0.5%	
Active Power	±1%	
Communication		
Communication Type	RS485 Modbus RTU	
Baud Rate	4800,9600,19200(default),38400,115200 bps	
Address Range	001 to 247	
Parity Bit	none(default) / odd / even	
Stop Bit	1/2	

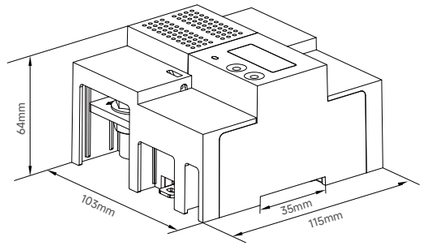
DCM-D Technical Parameters

	D1	D2
Power Supply	12~36V DC	12~36V DC
Power Consumption	<1.5W	<1.5W
Working Temperature	-40°C~+80°C	-40°C~+80°C
Storage Temperature	-40°C~+85°C	-40°C~+85°C
Humidity	≤90% (non-condensing)	≤90% (non-condensing)
Mechanical	M1	M1
Electromagnetic	E2	E2
Housing Material	PC UL94-V0	PC UL94-V0
Installation	Din rail mounted & Screw mounted	Din rail mounted & Screw mounted
Communication Port	RJ12, 115200bps, 8N1	RJ12, 115200bps, 8N1
Bluetooth	V5.1	V5.1
Optional Communication	/	Ethernet Modbus TCP

Wiring and Dimension

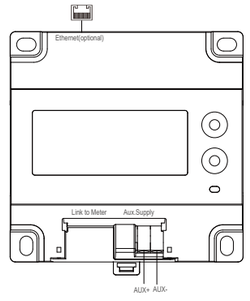
DCM6

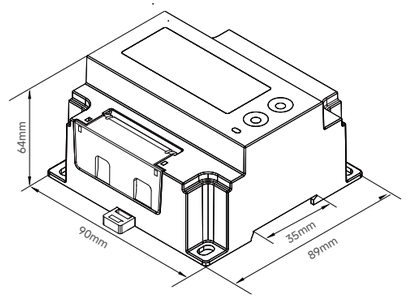




Height 115mm / Width 103mm / Depth 64mm

DCM-D





Height 89mm / Width 90mm / Depth 64mm

DCM6 Technical Standard

[1] EN50470-4:2023 "Electricity metering equipment (d.c.)- Part 4: Particular requirements -Static meters for DCactive energy (class indexes A, B and C)"

[2] IEC62053-41:2021 "Electricity metering equipment (d.c.)- Particular requirements - Part 41:.Static meters for DC energy (classes 0,5 and 1)"

[3] IEC62052-11:2020 "Electricity metering equipment (d.c.) - General requirements, tests and testconditions-Part 11:Metering equipment"

[4] EN-EC 62052-11/A11:2022 "Electricity metering equipment (d.c.)- Part 11: general requirements,tests and test conditions-Metering equipment"

[5] VDE-AR-E2418-3-100:"Elektromobilitat-Messsysteme fur Versorgungseinrichtungen"

[6] PTB-A 20.1: "Messgerate fürElektrizitat: lektrizitatszahler und deren Zusatzeinrichtungen"

[7] PTB-A 50.7:"Anforderungen an elektronische und softwaregesteuerte Messgerate undZusatzeinrichtungen fürElektrizität, Gas, Wasser und Warme"

[8] OCMF1.3.0: "Open Charge Metering Format"

DCM230-2 Series

DC EV Charger Metering

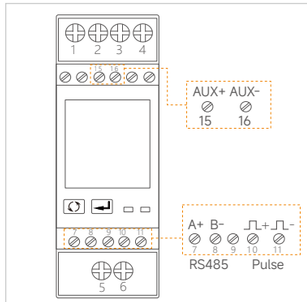
MID

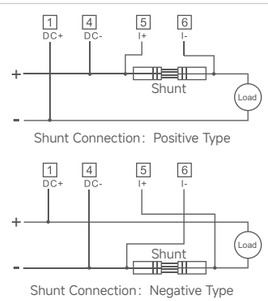
- 100~1000V DC
- Up to 600A
- Multi-parameter Measurement
- Bi-directional Measurement
- RS485 Modbus RTU
- Accuracy Class 1 or Class B
- DC Shunt Connection

Technical Specification

Electrical Characteristics	DCM230-2-150	DCM230-2-200	DCM230-2-300	DCM230-2-400	DCM230-2-600
Voltage Range	100~1000V DC				
Aux. Power Supply	9~40V DC				
Current Range	1.5~30(150)A	2~40(200)A	2.5~50(300)A	2.5~50(400)A	2.5~50(600)A
DC Shunt Input	75mV				
Voltage Loop Power Consumption	≤ 0.5W				
Current Loop Power Consumption	≤ 18W	≤ 24W	≤ 36W	≤ 48W	≤ 72W
Auxiliary Loop Power Consumption	≤ 2W				
Display Digitals	999999.9999 kWh				
Performance Criteria					
Operating Temperature	-40°C~+70°C				
Storage Temperature	-40°C~+85°C				
Operation Humidity	≤ 90%, non-condensing				
Storage Humidity	≤ 95%, non-condensing				
Altitude	≤ 2000m				
Accuracy					
Active Energy	Class 1 IEC62053-41 ; Class B EN50470-4				
Voltage	±0.5%				
Current	±0.5%				
Active Power	±1%				
Communication					
Communication Type	RS485 Modbus RTU				
Baud Rate	1200,2400,4800,9600(default) ,19200bps				
Address Range	001 to 247				
Parity Bit	none(default)/ odd / even				
Stop Bit	1/2				

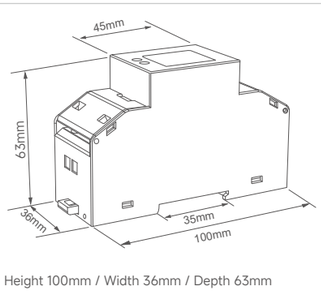
Wiring and Dimension





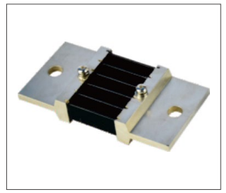
Shunt Connection: Positive Type

Shunt Connection: Negative Type



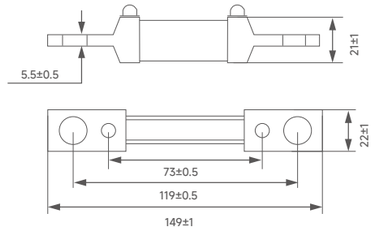
Height 100mm / Width 36mm / Depth 63mm

ESFL-2 Series

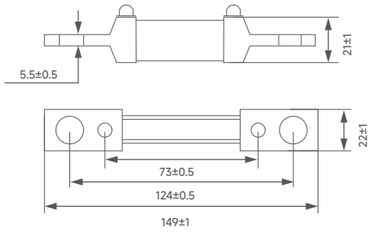


Primary Input	Rated Voltage Output	Accuracy	Dimension (mm)	Enclosure Dimension (mm)
150A	75mV	±0.2%	22x149x21	83.1x17.5x48.5
200A	75mV	±0.2%	22x149x21	83.1x17.5x48.5
300A	75mV	±0.2%	26x149x21.5	83.1x17.5x48.5
400A	75mV	±0.2%	38x149x21.5	83.1x17.5x48.5
600A	75mV	±0.2%	62x149x21.5	83.1x17.5x48.5
800A	75mV	±0.2%	76x125x21	83.1x17.5x48.5
1000A	75mV	±0.2%	95x125x21	83.1x17.5x48.5

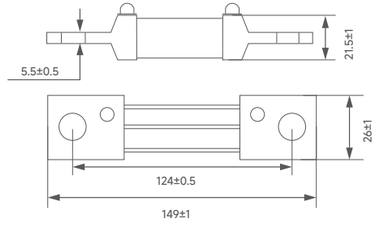
Dimension



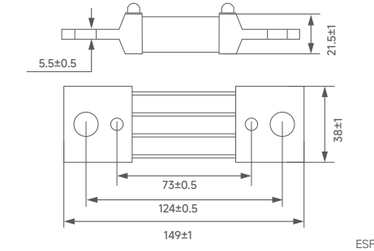
ESFL-2-150



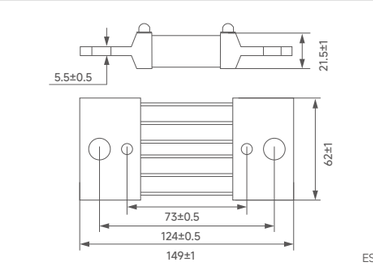
ESFL-2-200



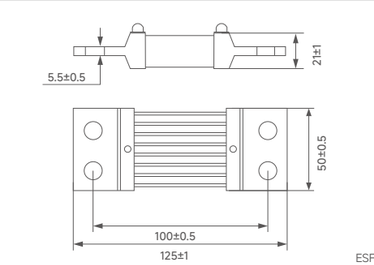
ESFL-2-300



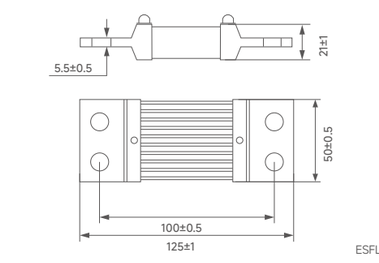
ESFL-2-400



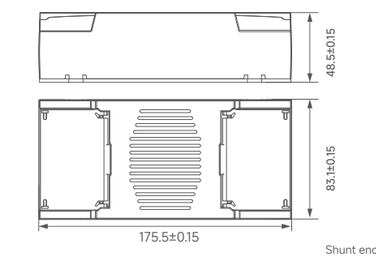
ESFL-2-600



ESFL-2-800



ESFL-2-1000



Shunt enclosure

DCM232

DC EV Charger Metering

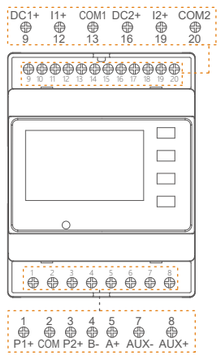
CE

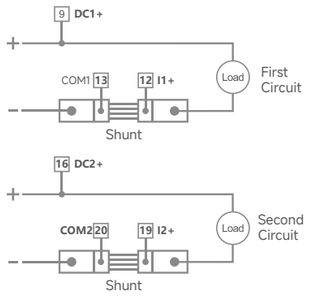
- 150~1000V DC
- 75mV/60mV DC Shunt Connection
- Multi-parameter Measurement
- Bi-directional Measurement
- RS485 Modbus RTU
- Accuracy Class 1
- Dual Channels
- Current Overload Alarm

Technical Specification

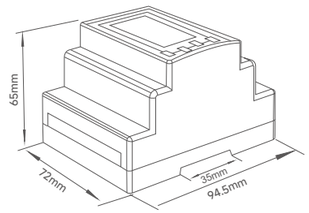
Electrical Characteristics	
Voltage Range	150~1000V DC
Aux. Power Supply	9~40V DC
Current Range	1~2000A
DC Shunt Input	60mV, 75mV(default)
Power Consumption	≤ 1W/5VA
Display Digitals	99999999.9999 kWh
Performance Criteria	
Operating Temperature	-40℃~+70℃
Storage Temperature	-40℃~+85℃
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 1 IEC62053-41
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	1200,2400,4800,9600(default),19200 bps
Address Range	001 to 247
Parity Bit	none(default)/ odd / even
Stop Bit	1/2

Wiring and Dimension





(Positive Connection is Available)



Height 94.5mm / Width 72mm / Depth 65mm

AC EV CHARGER METERING

SDM630-EV V2

11kW/22kW AC EV Charging Metering

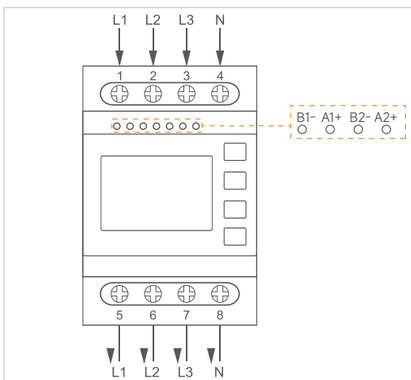
MID CE PTB

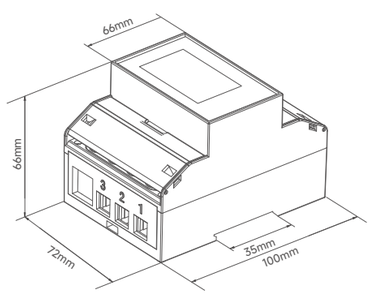
- Works with 1P2W/3P3W/3P4W
- 100~277V(L-N), 100~480V(L-L)
- Up to 100A
- Multi-parameter Measurement
- Bi-directional Measurement
- Two Channels of RS485
- Accuracy Class 0.5/1 or Class C/B
- German Eichrecht Standards
- Dot Matrix LCD Backlit Display
- Support OCMF Communication Protocol

Technical Specification

Electrical Characteristics		
Voltage Range	100~277V AC (L-N) / 100~480V AC (L-L)	
Current Range	0.3~10(100)A	
Power Consumption	<2W/10VA	
Frequency	50/60Hz	
Display Digitals	99999999 kWh/kVArh	
Performance Criteria		
Operating Temperature	-40℃~+70℃	
Storage Temperature	-40℃~+85℃	
Operation Humidity	≤ 90%, non-condensing	
Storage Humidity	≤ 95%, non-condensing	
Altitude	≤ 2000m	
Accuracy		
Active Energy	Class 0.5 IEC62053-22/Class 1 IEC62053-21 ; Class C/B EN50470-3:2022	
Voltage	±0.5%	
Current	±0.5%	
Active Power	±1%	
Communication		
Communication Type	Modbus Output (configurable)	Modbus Output (non-configurable)
Baud Rate	2400,4800,9600(default),19200,38400 bps	9600 bps
Address Range	001 to 247	001 to 247
Parity Bit	none(default) / odd / even	none
Stop Bit	1/2	1

Wiring and Dimension





Height 100mm / Width 72mm / Depth 66mm

SDM630-M

11kW/22kW AC EV Charging Metering

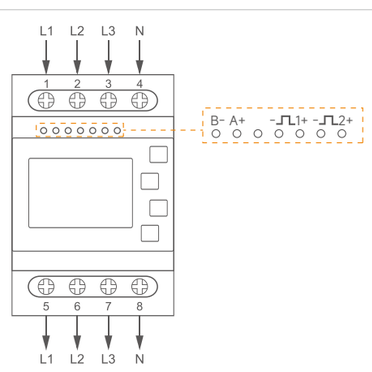
MID UL CE

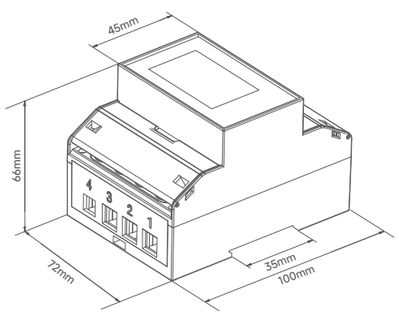
- Works with 1P2W/1P3W/3P3W/3P4W
- 100~277V(L-N), 100~480V(L-L)
- Up to 100A
- Multi-parameter Measurement
- Bi-directional Measurement
- Two Pulse Outputs
- RS485 Modbus RTU
- Accuracy Class 0.5/1 or Class C/B
- True RMS Metering Provides
- Accurate Measure

Technical Specification

Electrical Characteristics	
Voltage Range	100~277V AC (L-N) / 100~480V AC (L-L)
Current Range	0.3~10(100)A
Power Consumption	<2W/10VA
Frequency	50/60Hz
Display Digitals	99999.99 kWh/kVArh
Performance Criteria	
Operating Temperature	-40℃~+70℃
Storage Temperature	-40℃~+85℃
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 0.5 IEC62053-22/Class 1 IEC62053-21 ; Class C/B EN50470-3:2022
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	2400,4800,9600(default),19200,38400 bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 100mm / Width 72mm / Depth 66mm

SDM54-EV

11kW/22kW AC EV Charging Metering

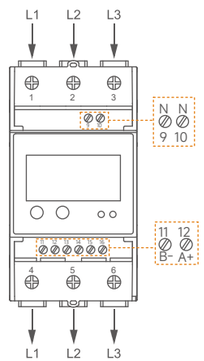
MID CE

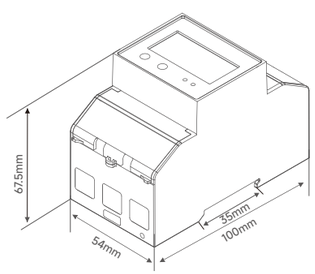
- Works with 1P2W/1P3W/3P4W
- 100~289V(L-N), 173~500V(L-L)
- Up to 100A
- Multi-parameter Measurement
- RS485 Modbus RTU
- Accuracy Class 1 or Class B
- Bi-directional Measurement
- 54mm Width

Technical Specification

Electrical Characteristics	
Voltage Range	100~289V AC (L-N) / 173~500V AC (L-L)
Current Range	0.5~10(100)A
Power Consumption	<2W/10VA
Frequency	50Hz
Display Digitals	999999.99 kWh/kVArh
Performance Criteria	
Operating Temperature	-40℃~+70℃
Storage Temperature	-40℃~+85℃
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 1 IEC62053-21 ; Class B EN50470-1/3
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	2400,4800,9600(default),19200,38400 bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 100mm / Width 54mm / Depth 67.5mm

SDM54-M

11kW/22kW AC EV Charging Metering

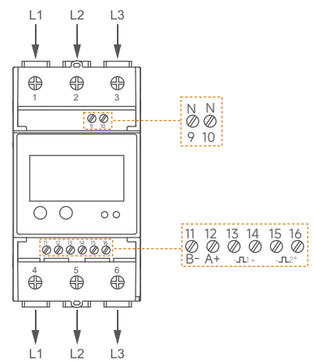
MID CE

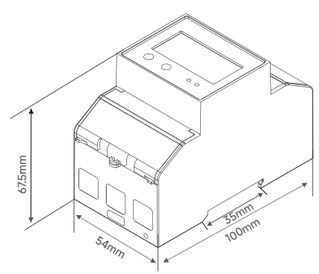
- Works with 1P2W/1P3W/3P4W
- 100~289V(L-N), 173~500V(L-L)
- Up to 100A
- Bi-directional Measurement
- Two Pulse Outputs
- RS485 Modbus RTU
- Accuracy Class 1 or Class B
- Multi-parameter Measurement
- 54mm Width

Technical Specification

Electrical Characteristics	
Voltage Range	100~289V AC (L-N) / 173~500V AC (L-L)
Current Range	0.5~10(100)A
Power Consumption	<2W/10VA
Frequency	50Hz
Display Digitals	999999.99 kWh/kVArh
Performance Criteria	
Operating Temperature	-40℃~+70℃
Storage Temperature	-40℃~+85℃
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 1 IEC62053-21 ; Class B EN50470-1/3
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	2400,4800,9600(default),19200,38400 bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 100mm / Width 54mm / Depth 67.5mm

SDM72D-M

11kW/22kW AC EV Charging Metering

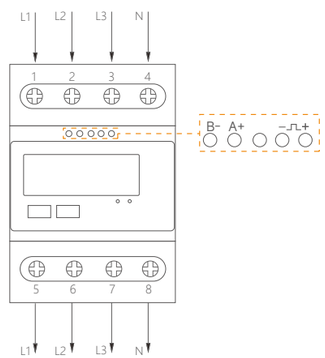
MID CE

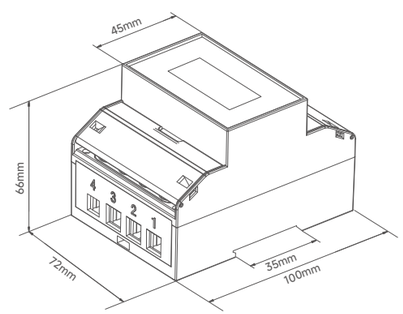
- Works with 1P2W/1P3W/3P4W
- 100~277V AC(L-N) / 100~480V AC(L-L)
- Up to 100A
- Multi-parameter Measurement
- Bi-directional Measurement
- Pulse Output
- RS485 Modbus RTU
- Accuracy Class 1 or Class B

Technical Specification

Electrical Characteristics	
Voltage Range	100~277V AC (L-N) / 100~480V AC (L-L)
Current Range	0.5~10(100)A
Power Consumption	<2W/10VA
Frequency	50/60Hz
Display Digitals	999999.9 kWh/kVArh
Performance Criteria	
Operating Temperature	-40°C~+70°C
Storage Temperature	-40°C~+85°C
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 1 IEC62053-21 ; Class B EN50470-3:2022
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	2400,4800,9600(default),19200,38400 bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 100mm / Width 72mm / Depth 66mm

SDM230-M

7kW AC EV Charging Metering

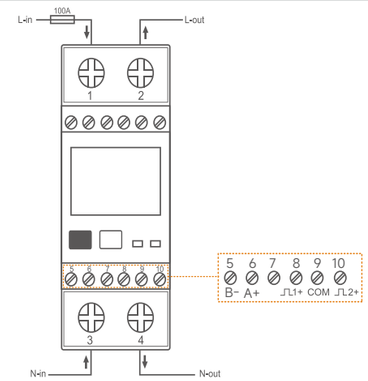
MID UL CE

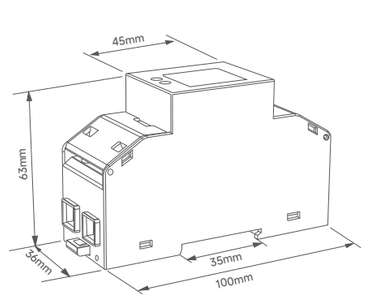
- Works with 1P2W
- 100~277V AC
- Up to 100A
- Multi-parameter Measurement
- Two Pulse Outputs
- RS485 Modbus RTU
- Accuracy Class 0.5/1 or Class C/B
- Bi-directional Measurement

Technical Specification

Electrical Characteristics	
Voltage Range	100~277V AC
Current Range	0.15~10(100)A
Power Consumption	<2W/10VA
Frequency	50/60Hz
Display Digitals	99999.99 kWh/kVArh
Performance Criteria	
Operating Temperature	-40°C~+70°C
Storage Temperature	-40°C~+85°C
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 0.5 IEC62053-22/Class 1 IEC62053-21 ; Class C/B EN50470-3:2022
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	1200,2400,4800,9600(default),19200, 38400 bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 100mm / Width 36mm / Depth 63mm

SDM18-M

7kW AC EV Charging Metering

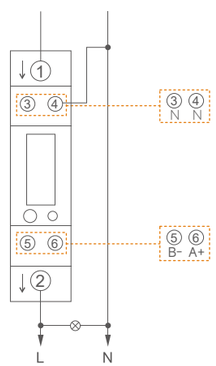
MID CE

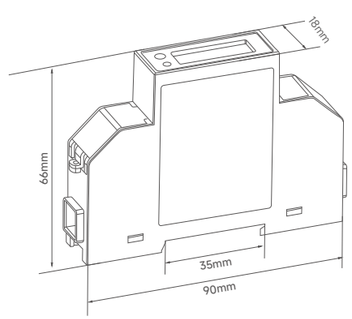
- Works with 1P2W
- 176~276V AC
- Up to 100A
- Bi-directional Measurement
- RS485 Modbus RTU
- Accuracy Class 1 or Class B
- Multi-parameter Measurement

Technical Specification

Electrical Characteristics	
Voltage Range	176~276V AC
Current Range	0.5~10(100)A
Power Consumption	<2W/10VA
Frequency	50Hz
Display Digitals	99999.9 kWh/kVArh
Performance Criteria	
Operating Temperature	-40°C~+70°C
Storage Temperature	-40°C~+85°C
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 0.5 IEC62053-22/Class 1 IEC62053-21 ; Class C/B EN50470-3:2022
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	1200,2400,4800,9600(default) bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 90mm / Width 18mm / Depth 66mm

SDM120-M

7kW AC EV Charging Metering

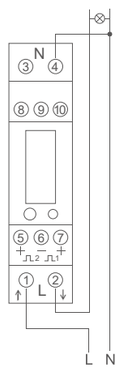
MID CE

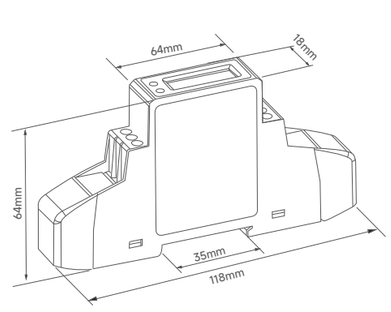
- Works with 1P2W
- 100~277V AC
- Up to 45A
- Bi-directional Measurement
- Two Pulse Outputs
- RS485 Modbus RTU
- Accuracy Class 0.5/1 or Class C/B
- Multi-parameter Measurement

Technical Specification

Electrical Characteristics	
Voltage Range	100~277V AC
Current Range	0.15~5(45)A
Power Consumption	<2W/10VA
Frequency	50/60Hz
Display Digitals	99999.9 kWh/kVArh
Performance Criteria	
Operating Temperature	-40°C~+70°C
Storage Temperature	-40°C~+85°C
Operation Humidity	≤ 90%, non-condensing
Storage Humidity	≤ 95%, non-condensing
Altitude	≤ 2000m
Accuracy	
Active Energy	Class 0.5/1 IEC62053-21 ; Class C/B EN50470-3:2022
Voltage	±0.5%
Current	±0.5%
Active Power	±1%
Communication	
Communication Type	RS485 Modbus RTU
Baud Rate	2400,4800,9600(default),19200,38400 bps
Address Range	001 to 247
Parity Bit	none(default) / odd / even
Stop Bit	1/2

Wiring and Dimension





Height 118mm / Width 18mm / Depth 64mm