

CD570

DC Energy Meter



HIGH ACCURACY MEASUREMENT

- EN 50470: Cl.C (0.5), IEC 62053-41: 0.5 and ANSI C12.32:Cl.C (0.5) (Include Shunt)
- 0.2% Accuracy on Voltage and Current

HIGH PERFORMANCE

- Cable Loss Compensation
- Direct Connection (Built-In Shunt): 600 A, 400 A, 250 A
- Directly Connected to 1000 V DC
- Wide Operating Temperature Range: -40 °C ~ 70 °C
- Built-In Insulate Measurement Function

CERTIFICATION

- CE
- MID

ENERGY

- Bi-Directional Energy
- Dual Circuits Energy Monitor
- TOU, Four Tariffs, 12 Seasons, 14 Schedules

RECORD

- 12 Monthly Energy Record
- Event Record
- Alarm Record
- Transaction Energy Counter can be Recorded

FEATURES

Metering

- Voltage
- Current
- Power

Energy and Energy Record

- Bi-Directional Energy
- 12 Monthly Energy Record
- Each Transaction Energy Counter can be Recorded

Time of Use (TOU)

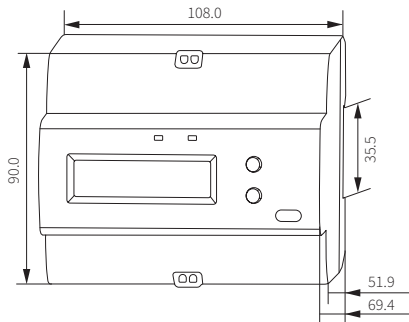
- Four Tariffs, 12 Seasons, 14 Schedules
- Two TOU Settings can Automatically Switch at the Setting Time
- 12 Monthly TOU Energy Record

Alarms

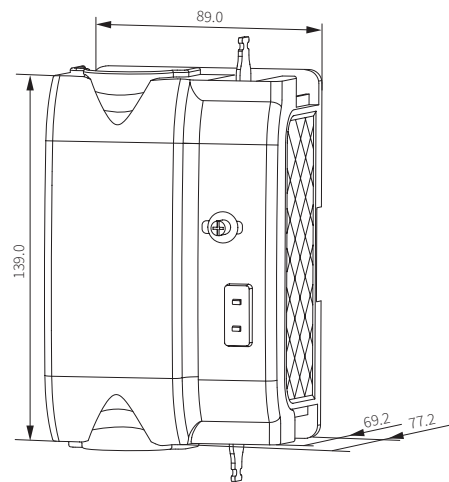
- Over or Under Setting Limit
- Voltage, Current, Voltage Ripple, Current Ripple, Temperature can Trigger Alarm

DIMENSIONS

Unit: mm

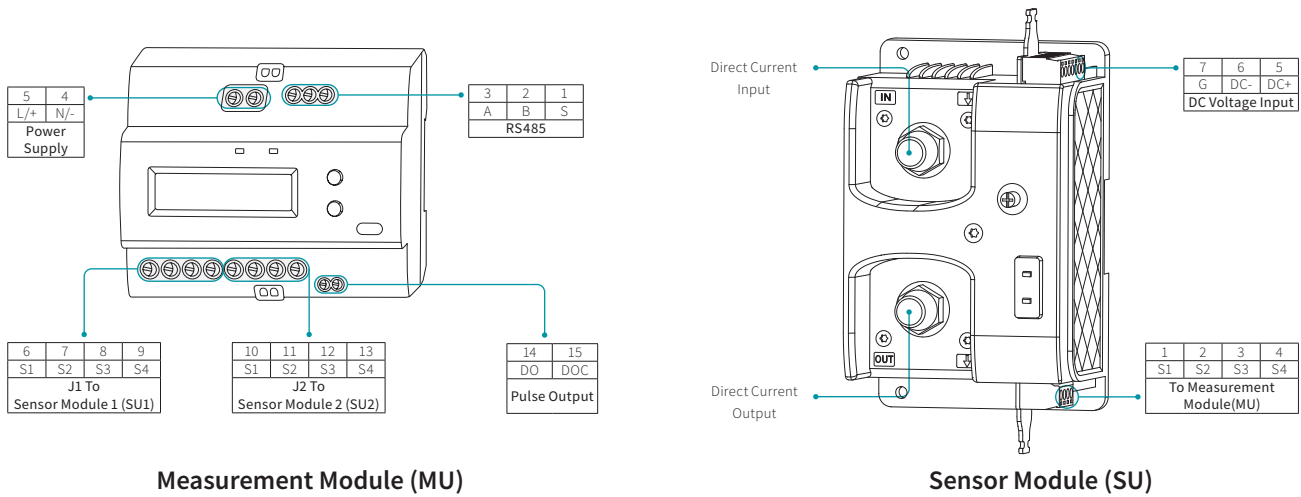


Measurement Module (MU)

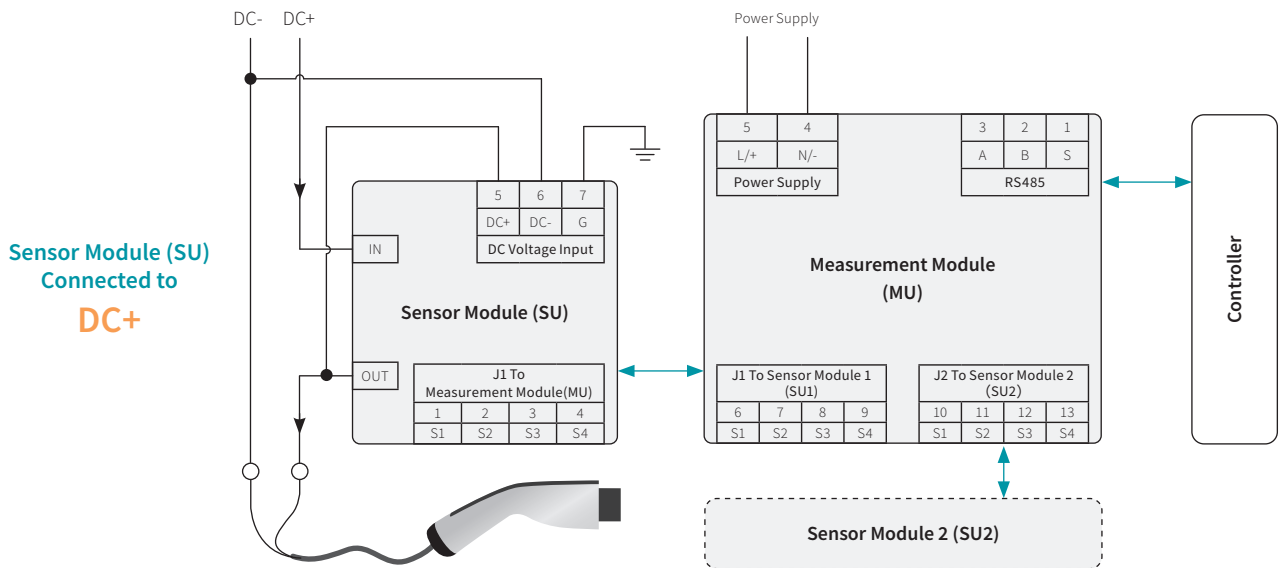
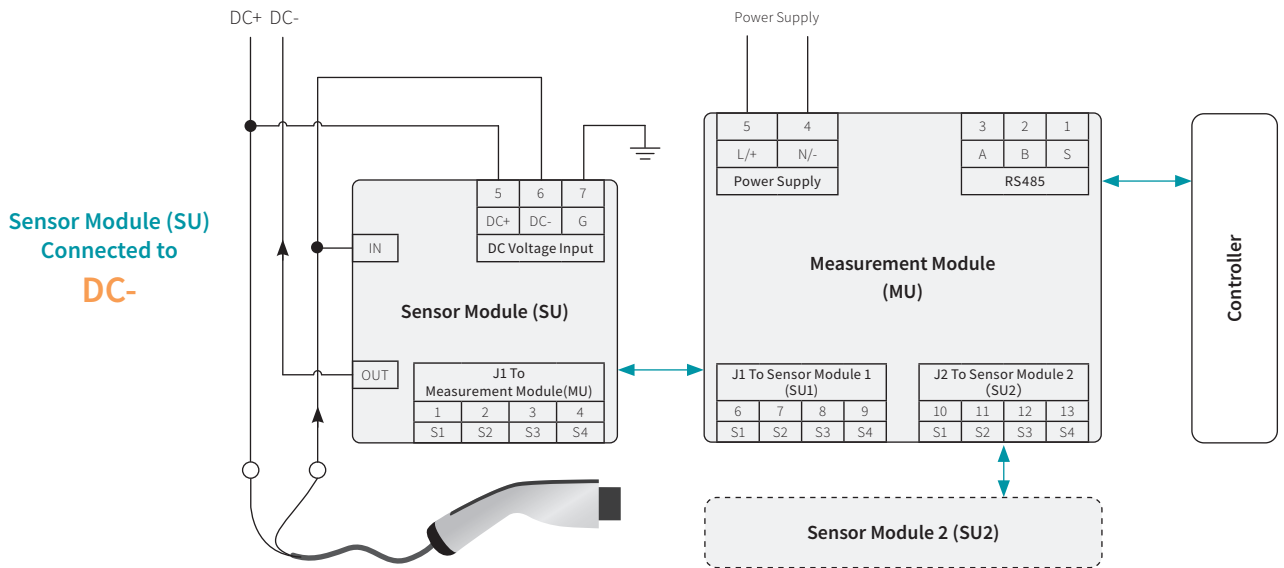


Sensor Module (SU)

TERMINAL DIAGRAM



APPLICATION DIAGRAM



SPECIFICATION

Measurement Accuracy

Parameter	Accuracy	Resolution	Range
Voltage	0.2%	0.1 V	100 ~ 1150 V DC
Current	0.2%	0.01 A	2.4 ~ 600 A
Power	0.5%	Settable, 0.0001 kW (Max)	0 ~ 600 kW
Energy	IEC62053-41: 0.5 EN 50470: Cl.C (0.5) ANSI C12.32: Cl.C (0.5)	Settable, 0.0001 kWh (Max)	0 ~ 99999999.9 kWh
Temperature	± 2°C	0.1 °C	-40 ~ 105°C
Stability	<0.5 sec/day	-	-

Operating Conditions

Voltage	
Nominal Voltage	1000 V DC
Voltage (Max)	1150 V DC
Measurement Range	100 ~ 1150 V DC

Current			
Current (Max) I_{max}	250 A	400 A	600 A
Nominal Current I_n	50 A	80 A	120 A
Transition Current I_{tr}	5 A	8 A	12 A
Current (Min) I_{min}	1.5 A	2.4 A	3.6 A
Starting Current I_{st}	0.2 A	0.32 A	0.48 A

Standards Compliance	
Product Standard	
Product Standard	IEC 62053-41:2021
Safety Standard	UL 61010-1 ed.3, CAT III Pollution Level 2
Certification Standard	EN 50470-1: 2006; EN 50470-3: 2006
Electromagnetic Compatibility	
Fast Transients Immunity	IEC 61000-4-4
Surge Immunity	IEC 61000-4-5
Radiated Field Immunity	IEC 61000-4-3
Conducted Disturbances Immunity	IEC 61000-4-6
Radiated and Conducted Emission	EN 55032/CISPR 32 Class B

Pulse Output	
Voltage	5 ~ 30 V DC
Current	5 ~ 50 mA
Pulse Width	80 ms
Pulse Constant	100 imp/kWh, Settable

Power Supply	
P1 Optional	100 ~ 240 V AC, 50/60 Hz, or 100 ~ 300 V DC, 2 W
P2 Optional	9 ~ 36 V DC, 2 W

Communication	
Type	RS485
Communication Protocol	Modbus RTU
Baud Rate	2400 ~ 115200 bps

Operating Environment	
Operating Temperature	-40 ~ 70°C
Storage Temperature	-40 ~ 85°C
Relative Humidity	5% ~ 95% (Non-Condensing)
Altitude	2000m
IP Degree of Protection	IEC60529, IP30

ORDERING INFORMATION

Model	Circuit	Current	Power Supply
CD570	- C1: Single Circuit	- 250: 250 A	- P1: AC Power Supply
	- C2: Dual Circuits	- 400: 400 A	- P2: DC Power Supply
		- 600: 600 A	

Ordering Example: CD570-C1-250-P1

CD570 DC Smart Billing Meter Ordering Information

Ordering Model	Specification Description	PN
CD570-C1-250-P1	Single Circuit, 250 A, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC	071880009
CD570-C1-250-P2	Single Circuit, 250 A, Power Supply 9 ~ 36 V DC	071880010
CD570-C1-400-P1	Single Circuit, 400 A, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC	071880001
CD570-C1-400-P2	Single Circuit, 400 A, Power Supply 9 ~ 36 V DC	071880002
CD570-C1-600-P1	Single Circuit, 600 A, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC	071880003
CD570-C1-600-P2	Single Circuit, 600 A, Power Supply 9 ~ 36 V DC	071880004
CD570-C2-250-P1	Dual Circuits, 250 A, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC	071880011
CD570-C2-250-P2	Dual Circuits, 250 A, Power Supply 9 ~ 36 V DC	071880012
CD570-C2-400-P1	Dual Circuits, 400 A, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC	071880005
CD570-C2-400-P2	Dual Circuits, 400 A, Power Supply 9 ~ 36 V DC	071880006
CD570-C2-600-P1	Dual Circuits, 600 A, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC	071880007
CD570-C2-600-P2	Dual Circuits, 600 A, Power Supply 9 ~ 36 V DC	071880008

Note:

1. The CD570 single circuit meter include of 1 measurement module (MU), 1 sensor module (SU) and 1 cable ;
2. The CD570 dual circuits meter include of 1 measurement module (MU) , 2 sensor modules (SU) and 2 cables.

Revision Date: Apr., 2024 V1.04

