

CD560

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)
- 0.2% Accuracy on Voltage and Current

ENERGY

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

HIGH PERFORMANCE

- Cost-Effective
- Directly Connected to 1500 V DC
- Wide Operating Temperature Range: -40 °C ~ 70 °C

CERTIFICATION

- CE
- UL
- MID

APPLICATIONS

- Electric Vehicle Charging



- Energy Storage



- Solar PV



FEATURES

Metering

- Voltage
- Current
- Power
- Ampere-Hour

Energy and Energy Record

- Bi-Directional Energy
- 12 Monthly Energy Record

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

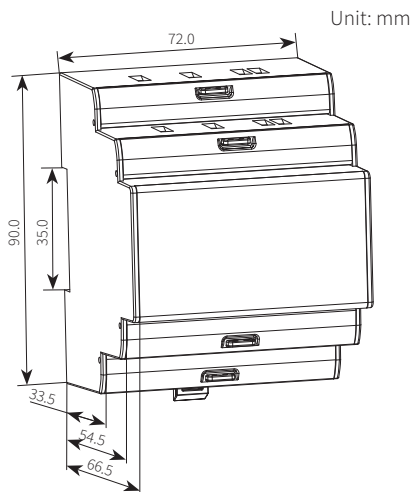
Reduce Electricity Theft Design

- Terminal Cover Sealing
- Metrology Seal

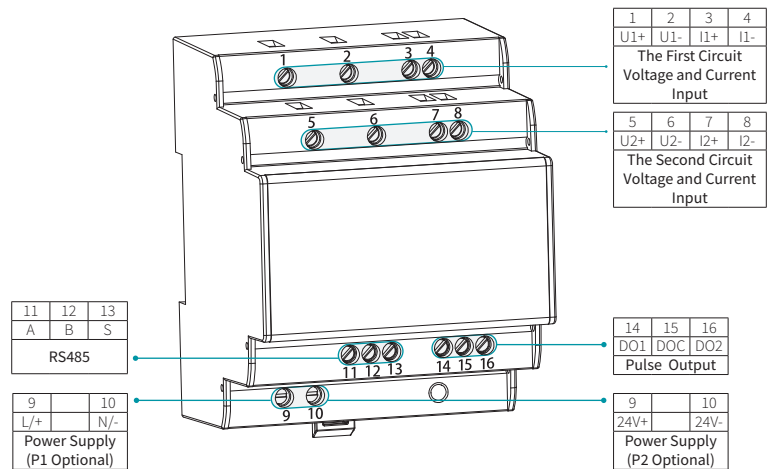
Demand

- Power and Current Demand
- Peak Demand Record

DIMENSIONS



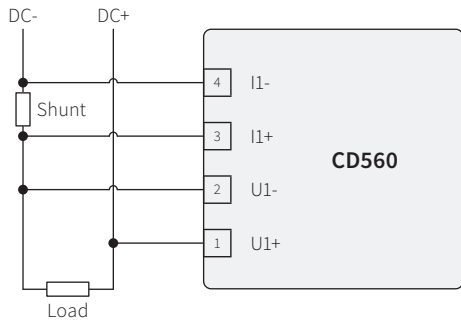
TERMINAL DIAGRAM



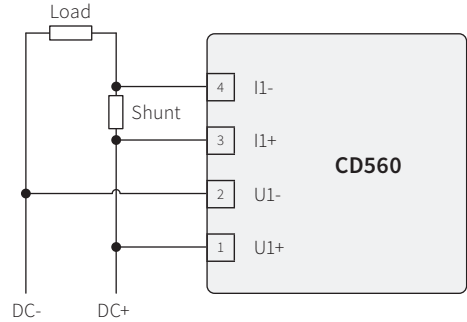
TYPICAL WIRING

The First Circuit Current Wiring Using Shunt

Shunt Connected to DC-

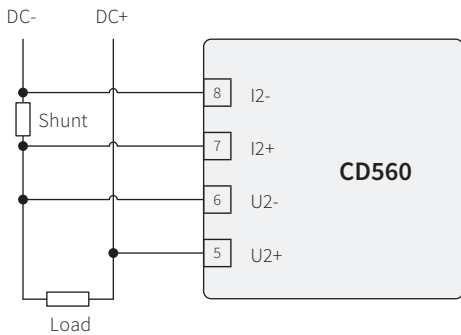


Shunt Connected to DC+ (Special specifications)

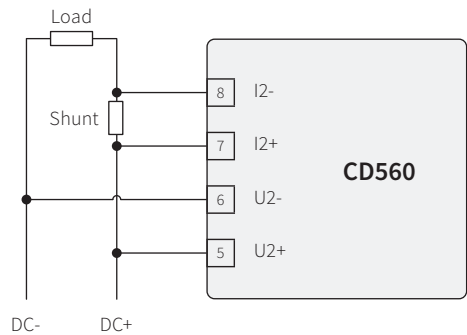


The Second Circuit Current Wiring Using Shunt

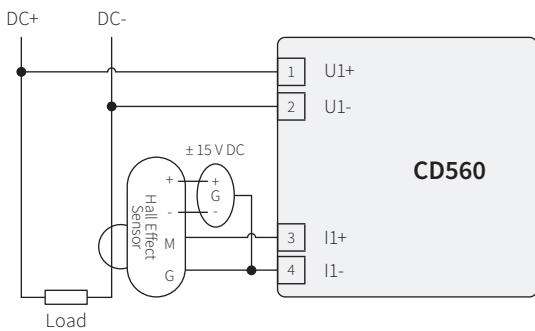
Shunt Connected to DC-



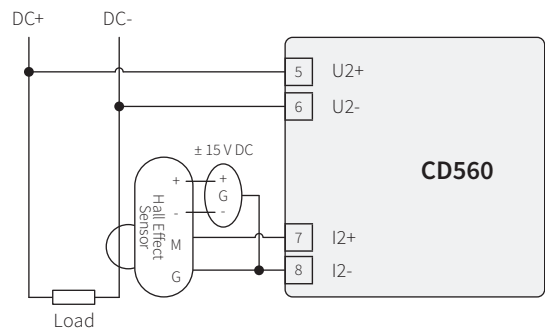
Shunt Connected to DC+ (Special specifications)



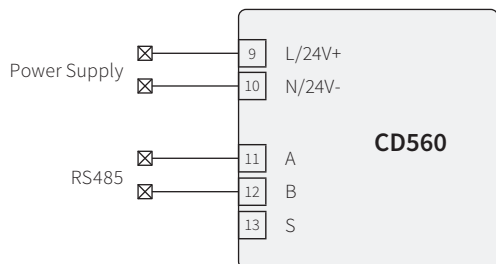
The First Circuit Current Wiring Using Hall Effect Sensor



The Second Circuit Current Wiring Using Hall Effect Sensor



Power Supply and Communication



SPECIFICATION

Measurement Accuracy

| METERING | | | |
|-------------|--|------------------|--|
| Parameter | Accuracy | Resolution | Range |
| Voltage | 0.2% | 0.1 V | Nominal Voltage: 1000 V/1500 V DC Measurement Range: 0.1 Un ~ 1.15 Un |
| Current | 0.2% | 0.01 A | Shunt or Hall Effect Sensor Indirect Connection |
| Power | 0.5% | 0.1 kW | 0 ~ 50000 A |
| Energy | IEC 62053-41: 0.5 EN 50470: Cl. C (0.5) ANSI C12.32: Cl. C (0.5) | 0.0001 kWh (Max) | 0 ~ 420000000.0 kWh |
| Ampere-Hour | 0.5% | 0.1 Ah | 0 ~ 420000000.0 Ah |
| Stability | 0.5 s/d | - | - |

Operating Conditions

| Voltage | |
|------------------|---------------------|
| Nominal Voltage | 1000 V DC/1500 V DC |
| Range | 0.1 Un ~ 1.15 Un |
| Starting Voltage | 0.05 Un |
| Accuracy | 0.2% |
| Resolution | 0.1 V |

| Current | |
|------------------|--|
| Nominal Current | Shunt : ± 50 mV/ ± 75 mV Hall Effect Sensor : 0 ~ ± 5 V/0 ~ ± 4 V |
| Range | 0 ~ 1.2 Ib |
| Starting Current | 0.001 Ib |
| Accuracy | 0.2% |
| Resolution | 0.001 A |

| Operating Environment | |
|-------------------------|--|
| Operating Temperature | -40 ~ 70 °C |
| Storage Temperature | -40 ~ 85 °C |
| Relative Humidity | Annual mean: <75% For 30 days, these days being spread in a natural manner over one year: 95% |
| IP Degree of Protection | IP30 |
| Altitude | 2000 m |

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

| Power Supply | |
|-----------------|--|
| Operating Range | 100 ~ 240 V AC, 50/60 Hz, <5 VA, CAT III 100 ~ 300 V DC, <2 W, CAT III 9 ~ 36 V DC, <2 W |

| 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 |

ORDERING INFORMATION

| Model | Circuit | Voltage | Current | Power |
|-------|---------------------|---|--|--|
| CD560 | - S: Single Circuit | - 1500 V: Nominal Input Voltage 1500 V DC | - A1: Shunt (50 ~ 75 mV) | - P1: 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC |
| | - D: Dual Circuits | - 1000 V: Nominal Input Voltage 1000 V DC | - A2: Voltage Hall Effect Sensor (0 ~ ±5 V/0 ~ ±4 V) | - P2: 9 ~ 36 V DC |

Ordering Example: CD560-S-1000V-A1-P2

CD560 DC Smart Power and Energy Meter Ordering Information

| Ordering Model | Specification Description | PN |
|---------------------|--|-----------|
| CD560-S-1000V-A1-P2 | Single Circuit, Nominal Input Voltage 1000 V DC, Current via Shunt, Power Supply 9~36 V DC | 071930001 |
| CD560-D-1000V-A1-P2 | Dual Circuits, Nominal Input Voltage 1000 V DC, Current via Shunt, Power Supply 9 ~ 36 V DC | 071930002 |
| CD560-S-1500V-A1-P2 | Single Circuit, Nominal Input Voltage 1500 V DC, Current via Shunt, Power Supply 9~36V DC | 071930003 |
| CD560-S-1500V-A2-P2 | Single Circuit, Nominal Input Voltage 1500 V DC, Current via Hall Effect Sensor, Power Supply 9 ~ 36 V DC | 071930004 |
| CD560-S-1500V-A1-P1 | Single Circuit, Nominal Input Voltage 1500 V DC, Current via Shunt, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC | 071930005 |
| CD560-S-1500V-A2-P1 | Single Circuit, Nominal Input Voltage 1500 V DC, Current via Hall Effect Sensor, Power Supply 100 ~ 240 V AC, 50/60 Hz, 100 ~ 300 V DC | 071930006 |

Note:

The list shows regular model. If you need to configure other specified products , please contact us.

Shunt Connected to DC+, Order number add “-H”.

Example: CD560-S-1000V-A1-P2-H

Revision Date: Apr., 2024 V1.05

