1 Product Introduction
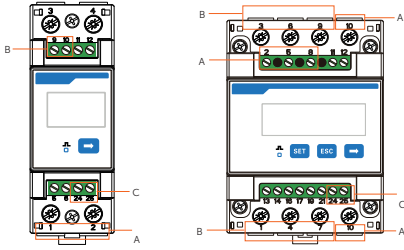

Figure 1-1 DDSU666-CT

Figure 1-2 DTSU666-CT

Table 1-1 DDSU666-CT terminal definition

No.	Terminal No.	Terminal Definition	Definition
A	1	UL	Voltage input terminal, connected to the L wire
	2	UN	Phase N voltage input terminal, connected to the N wire
B	9	I*	Current input terminal, connected to S1 wire of CT
	10	I	Current output terminal, connected to S2 wire of CT
C	24	RS485A	RS485 terminal A
	25	RS485B	RS485 terminal B

Table 1-2 DTSU666-CT terminal definition

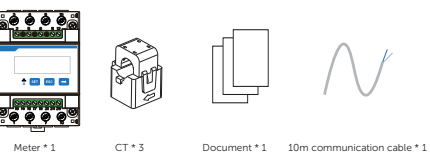| No.	Terminal No.	Terminal Definition	Definition
A	2, 5, 8	UA, UB, UC	Voltage input terminal of phase A, B and C, respectively connected to L1, L2 and L3 wire
	10	UN	Phase N voltage input terminal, connected to the N wire
B	1/4/7	IA*, IB*, IC*	Current input terminal of phase A, B and C, connected to S1 wire of CT
	3/6/9	IA, IB, IC	Current output terminal of phase A, B and C, connected to S2 wire of CT
C	24	RS485A	RS485 terminal A
	25	RS485B	RS485 terminal B

Note: The terminals in the same box are a pair.

2 Scope of Delivery

DDSU666-CT

Meter * 1   CT * 1   Document * 1   10m communication cable * 1

DTSU666-CT

Meter * 1   CT * 3   Document * 1   10m communication cable * 1
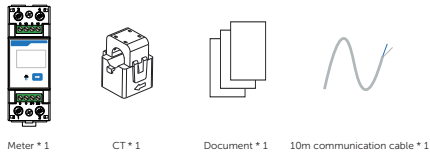
Note: The included CT model is NCTK24 200A/5A. For optional CT models, see the *User Manual*.

3 Mounting

The device is designed to be installed on the 35 mm DIN rail inside the power distribution box.

Procedure

After connecting the cables based on the system wiring diagrams, mount the meter to the 35 mm DIN rail, and then clip it to the rail with strength.
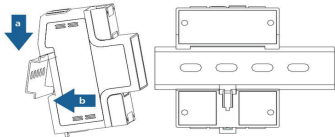

Figure 3-1 Mounting the meter

4 Typical System Wiring

When the system is powered on, ensure that the RS485 cables are kept separate from the power cables to protect the inverter from potential damages.

DDSU666-CT

— L wire — — S1 wire — — RS485A wire — — PE wire —
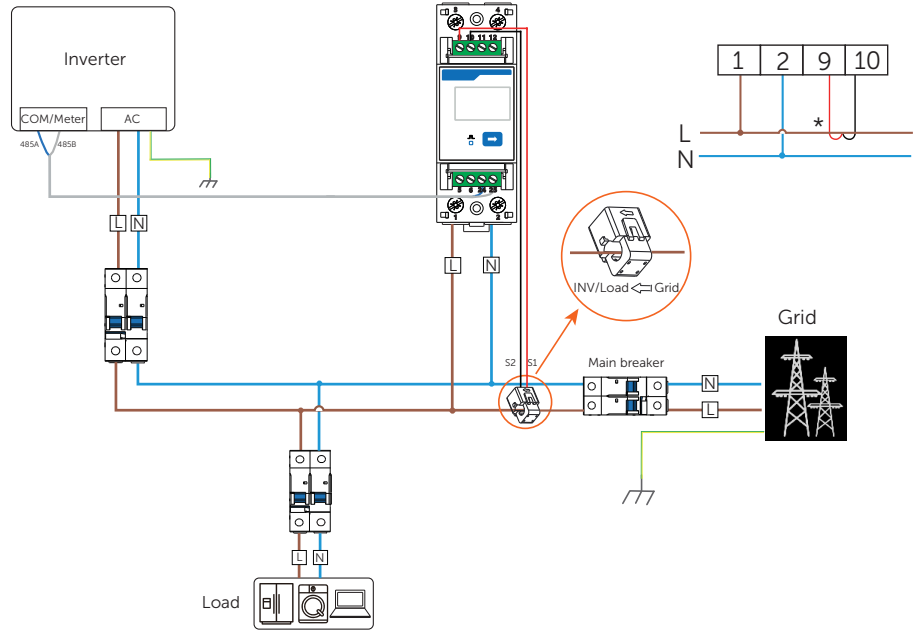— N wire — — S2 wire — — RS485B wire —

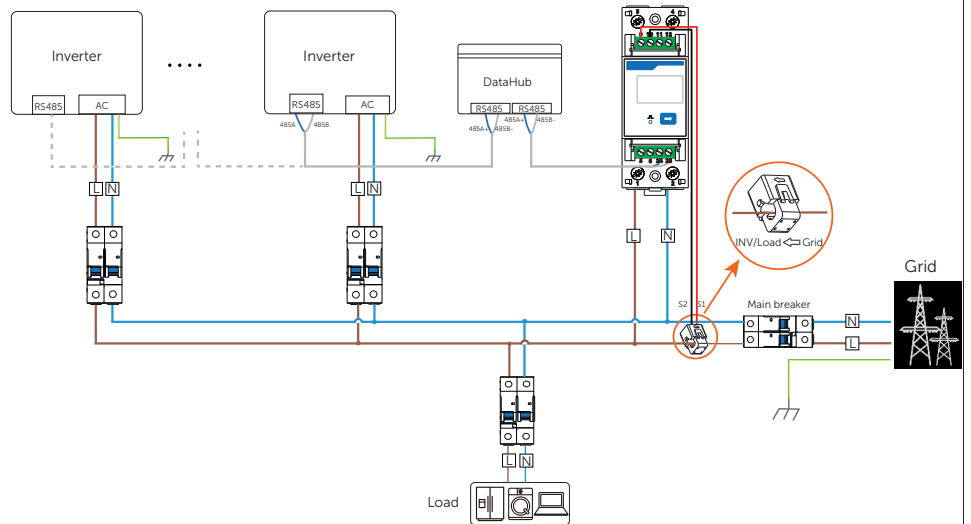Figure 4-1 Networking through RS485 cable

Figure 4-2 Networking through DataHub

Note: The diagram of networking through DataHub uses the cascading of gird-connected inverters for example, and the RS485 terminal of the master inverter for connecting slave inverters and DataHub might vary depending on the inverter models. For wiring details, see the user manual of the specific inverter and DataHub.

4 Typical System Wiring

DTSU666-CT

DTSU666-CT supports 3-phase 4-wire (3P4W) and 3-phase 3-wire (3P3W). The diagrams use 3-phase 4-wire wiring mode for example. For 3-phase 3-wire wiring mode, N wire does not need to be connected, and CT is not required for phase B.

Legend:
- —— L1 wire
- —— L2 wire
- —— L3 wire
- —— N wire
- —— S1 wire
- —— S2 wire
- —— RS485A wire
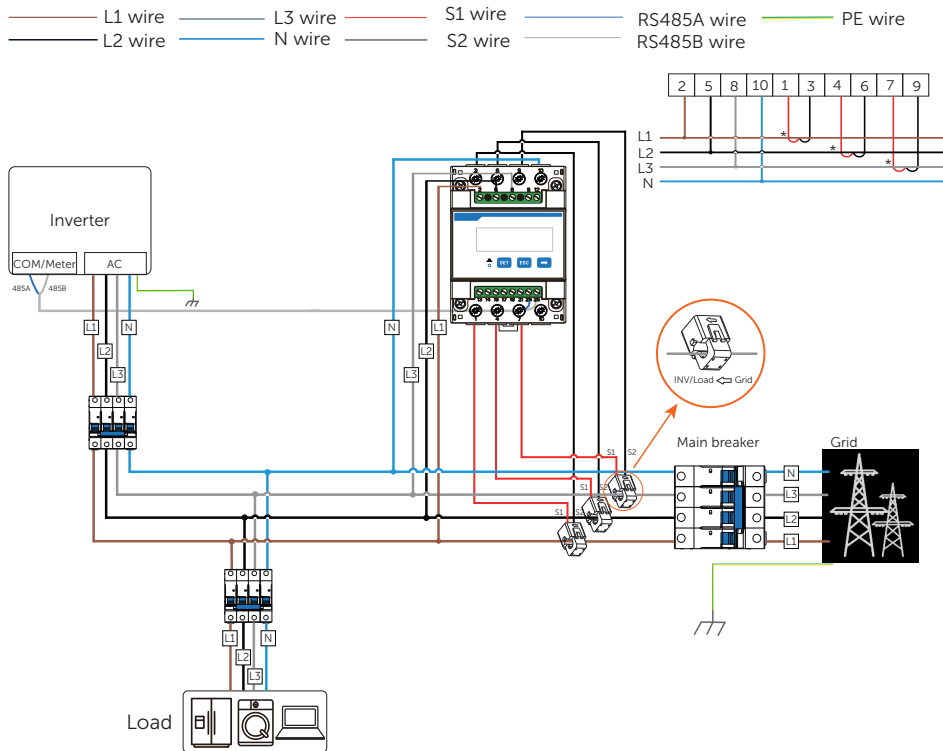- —— RS485B wire
- —— PE wire

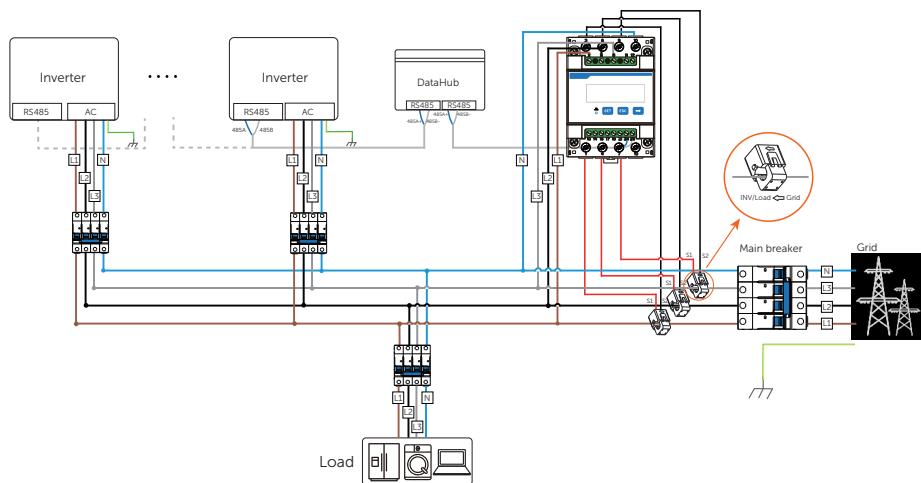Figure 4-3 Networking through RS485 cable

Figure 4-4 Networking through DataHub

Note: The diagram of networking through DataHub uses the cascading of grid-connected inverters for example, and the RS485 terminal of the master inverter for connecting slave inverters and DataHub might vary depending on the inverter models. For wiring details, see the user manual of the specific inverter and DataHub.

5 Compatible Inverters and Pin Definition

DDSU666-CT

DDSU666-CT can only be connected to single-phase inverters. It is compatible with the following single-phase inverters. While connecting the cables, pay special attention to the connector type and the pin number of the inverter.

Table 5-1 Compatible inverters and pin definition (1)

Inverter series	Terminal type	Connector type	Pin No.	Pin definition	Remarks
X1-HYB LV	COM	RJ45	4	485A	Select either COM1, COM2 or COM3
			5	485B	
X1-AC	Meter	RJ45	7	485A	—
			8	485B	
• X1-HYB G4 • X1-FIT G4 • X1-IES	Meter/CT	RJ45	4	485A	—
			5	485B	
• X1-MINI G4 • X1-BOOST G4	CC/MCT	RJ45	4	485A	—
			5	485B	
X1-SMART G2	COM/CT	Quick-connect terminal	4/11	485A	—
			5/12	485B	

Note: Two terminals of different types are available for meter on X1-Smart G2, and the pins in the same box are a pair.

DTSU666-CT

DTSU666-CT can be connected to both single-phase and three-phase inverters. Therefore, besides the above the single-phase inverters, it is also compatible with the following three-phase inverters.

Table 5-2 Compatible inverters and pin definition (2)

Inverter series	Terminal type	Connector type	Pin No.	Pin definition
• X3-HYB G4 • X3-FIT G4 • X3-IES	Meter/CT	RJ45	4	485A
			5	485B
X3-ULTRA	COM 2	RJ45	4	485A
			5	485B
X3-MIC G2		RJ45	4	485A
			5	485B
X3-PRO G2		O/I terminal	5	485A
			6	485B
• X3-MEGA G2 • X3-FORTH		Quick-connect terminal	7	485A
			8	485B

6 Troubleshooting

Following are common problems with the meter when used with inverters. For further assistance, contact SolaX Customer Service.

01 What if the inverter LCD or SolaXCloud reports a MeterFault alarm when the meter is connected to and enabled on the inverter?

The inverter reports a MeterFault alarm when it fails to communicate with the meter. Please follow the steps to troubleshoot:

Step 1: Check the wiring between the meter and inverter based on the inverter user manual and the provided wiring diagrams. Ensure that terminal 24 of the meter is connected to RS485 terminal A of the inverter, and terminal 25 of the meter is connected to RS485 terminal B of the inverter. For pin definitions of different inverter models, see "Compatible Inverters and Pin Definition" and the respective user manual .

Step 2: Check whether the meter settings meet the requirements of the inverter. Typically, for communication with SolaX inverters, the meter address should be set to 001, with a baud rate of 9600, no parity and 1 stop bit. These settings are default to the meter. If the current meter settings are not correct, see the *User Manual* for how to modify them.

Step 3: Contact the distributor or SolaX technical support.

02 What if the meter readings, such as power, do not match the actual situation?

Abnormal meter readings might result from incorrect wiring, improper CT connection, inconsistent parameter settings and more of the meter.

Following are common problems with abnormal meter readings and methods to fix them. For other situations, contact the distributor or SolaX after-sales service.

- The power reading of a phase is opposite to the actual power flow. For example, the actual power flow is importing 2 kWh, but the reading is exporting 2 kWh.

  In this case, check whether the CT direction and wiring of S1 and S2 are correct. The CT must point away from the grid to the inverter or load. S1 and S2 wire of the CT must be connected to the input and output terminal of the meter respectively.

- The reading is proportionally larger or smaller than the actual value. For example, the actual export power is 2 kWh, but the reading is 1 kWh.

  In this case, check whether the current ratio set on the meter corresponds to the CT specification. If not, see the *User Manual* to reset it.