

DDSU1079-CT Smart Power Sensor

Quick Guide

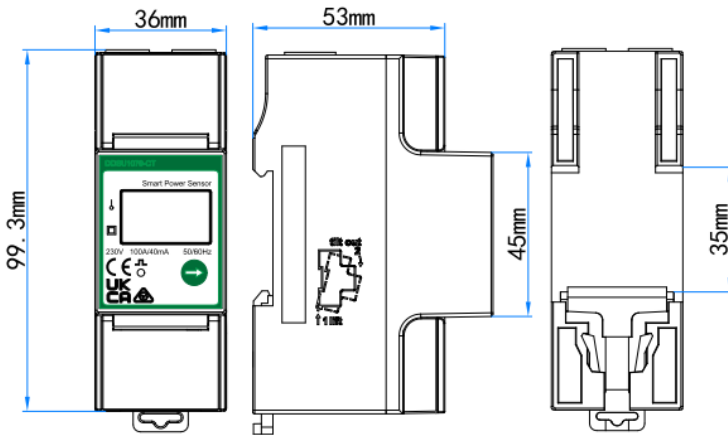
Issue: 01

Date: 2024-01-30

1 Overview

1.1 Dimensions

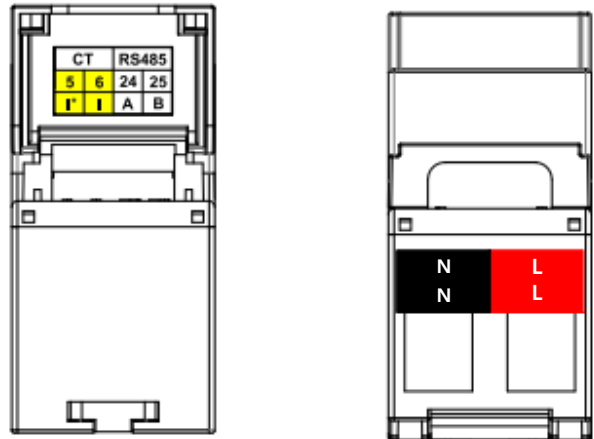
DDSU1079-CT



1.2 Port Definition

Input voltage: 230 V; input current of the current transformer (CT): 40 mA

CT: 100 A/40 mA

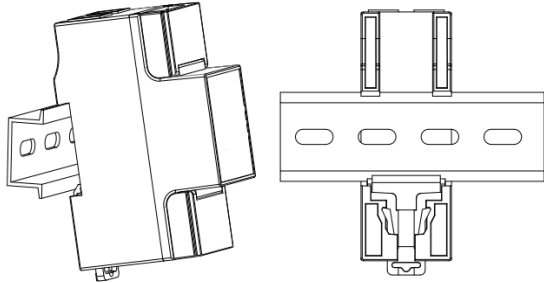


NOTE

The protective film of the nameplate can be removed.

2 Installing the DDSU1079-CT

1. Install the Smart Power Sensor on the DIN 35 mm standard guide rail.
2. Press the Smart Power Sensor downwards onto the guide rail, and then push it in place along the guide rail.



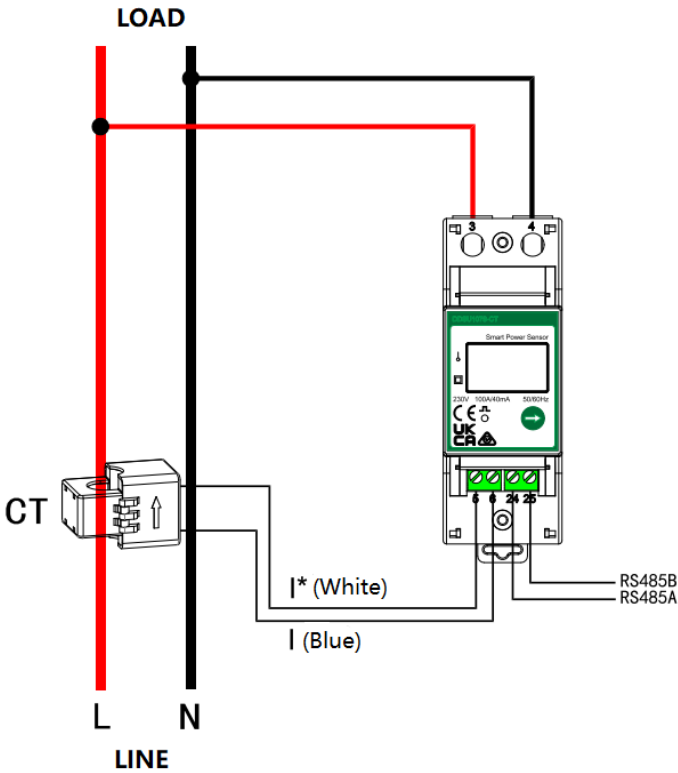
3 Installing the DDSU1079-CT Cables

3.1 Required Cables

Cable	Port	Type	Conductor Cross-sectional Area	Outer Diameter	Source
AC output power cable	L-3	Two-core outdoor copper cable	1.5–4 mm ²	8.0–12 mm	Prepared by the customer
	N-4				
CT cable	I*-5	/	/	/	Provided by the manufacturer
	I-6	/	/	/	
Communications cable	RS485A-24	Two-core outdoor shielded twisted pair	0.5 mm ²	6–8 mm	Provided by the manufacturer
	RS485B-25				

3.2 Cable Connection

1. Connect voltage lines L and N to terminals 3 and 4 of the Sensor, respectively.
2. Connect CT output lines I* and I to terminals 5 and 6 of the Sensor, respectively.
3. Connect RS485A and RS485B to the communication host.









NOTE

The maximum torque of the screws for terminals 3 and 4 is 0.9 N·m, and the recommended torque is 0.6 ± 0.1 N·m. The maximum torque of the screws for terminals 5, 6, 24, and 25 is 0.5 N·m, and the recommended torque is 0.34 ± 0.05 N·m.











4 Display and Parameter Settings

4.1 Display (Auto Loop)

Auto loop switch time = 5s.

No.	Display Interface	Description	No.	Display Interface	Description
1		Imp. active energy = 1.2 kWh	2		Exp. active energy = 1.00 kWh
3		Active power = 1.1 kW	4		Voltage = 220.0 V
5		Current = 5.000 A	6		Freq. = 50.00 Hz

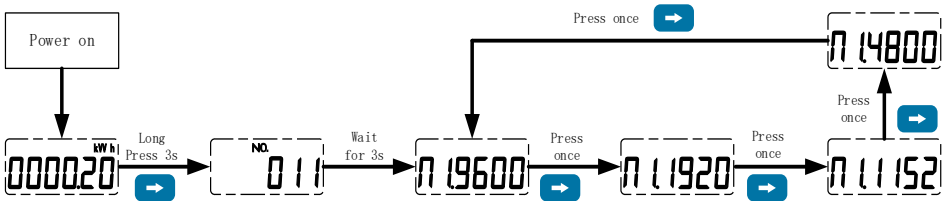
4.2 Display

No.	Display Interface	Description	No.	Display Interface	Description
1		Comb. active energy = 0.20 kWh	2		Imp. active energy = 1.2 kWh
3		Exp. active energy = 1.00 kWh	4		None parity, 1 stop bit, Baud = 9600 bit/s
5		Comm. Add = 11	6		Voltage = 220.0 V
7		Current = 5.000 A	8		Active power = 1.1 kW
9		Power Factor = 1.000	10		Freq. = 50.00 Hz

Comb. active energy = Imp. active energy - Exp. active energy

4.3 Parameter Settings

Press the button to set the communication address and the baud rate for the Power Sensor. Hold down the button for 3s. The Power Sensor automatically enters the interface for setting the communication address, while the setting & display interface of baud rate and communication address circularly displays. Press the button to set the baud rate or communication address. The interface for setting the communication address and baud rate will exit if the button is not operated for 20s.



5 Troubleshooting

Symptom	Cause Analysis	Troubleshooting Method
No display after power-on	<ol style="list-style-type: none"> 1. The cable connection is incorrect. 2. The supply voltage is abnormal. 	<ol style="list-style-type: none"> 1. Connect the cables correctly (see wiring diagrams). 2. Supply the correct voltage based on the specifications.
Abnormal RS485 communication	<ol style="list-style-type: none"> 1. The RS485 communications cable is disconnected, short-circuited, or reversely connected. 2. The communication address, baud rate, data bit, and parity bit of the meter do not match those of the communication host. 	<ol style="list-style-type: none"> 1. Reconnect the communications cable or replace it. 2. Set the communication address, baud rate, data bit, and parity bit of the meter to be the same as those of the communication host by pressing buttons. For details, see "Parameter Settings."
Inaccurate metering	<ol style="list-style-type: none"> 1. The cable connection is incorrect. Check whether the corresponding phase sequence of voltage and current is correct. 2. Check whether the CT input line and output line are reversely connected. If the power value is negative, the cables are connected incorrectly. 	Connect the cables correctly (see wiring diagrams).

6 Installation Verification

1. Check that all mounting brackets are securely installed and all screws are tightened.
2. Check that all cables are reliably connected in correct polarity without short circuits.