DDSU666 Smart Meter
Quick Operation Guide

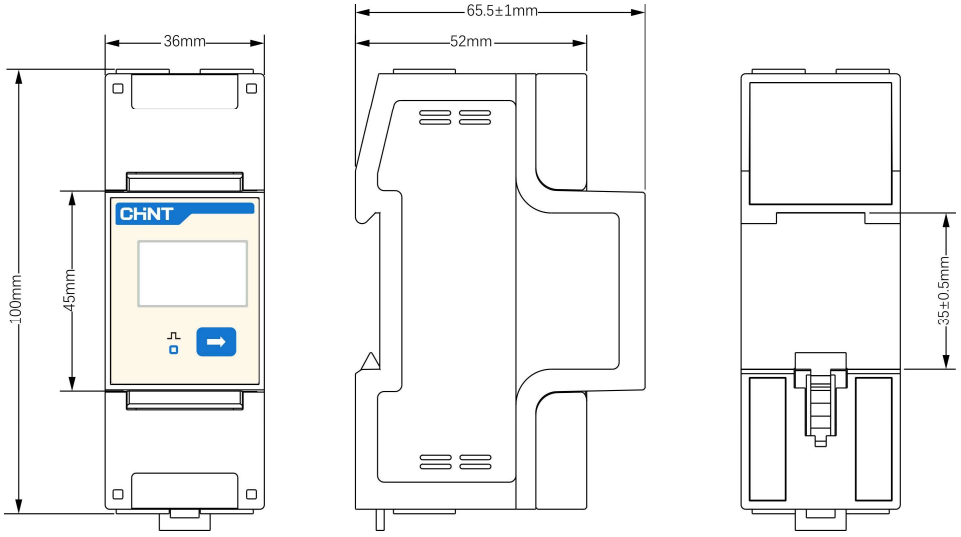
Issue: 014-03
Date: 2024-05

ZTW0.464.0053

1 Product Description

1.1 Outline and mounting dimensions

Model	Wiring Method	modulus	Dimensions (L*W*H) mm	Suttle(kg)	Rail dimension
DDSU666 Series	External CT access	2	100×36×65.5	About 0.15	DIN35 standard guide rails



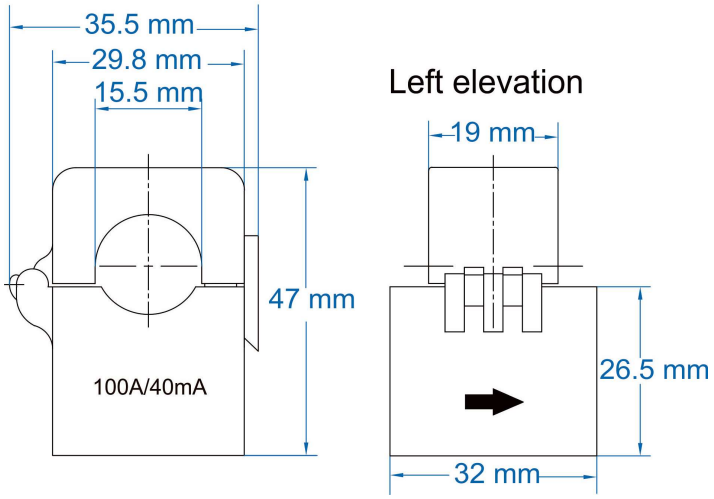
NOTE
The unnoted tolerance is ±1mm;
The appearance, size and information are subject to actual objects.

1.2 Product performance specifications

Model	DDSU666
Current specification	100A/40mA
Access method	External CT access
Nominal voltage	220V…240V
Frequency	50/60Hz
Current measuring range	0~100A
Voltage measuring range	100V…276V
Accuracy class	Class B(Class 1)
Power grid system	single phase
Baud rate	1200bps/2400bps/4800bps/9600bps(default 9600bps)/ 19200bps/115200bps(customizable)
Temperature	-25℃~+55℃(nominal),-40℃~+70℃(ultimate)
Way to install	Rail mounting
Authentication	CE,RCM,SAA

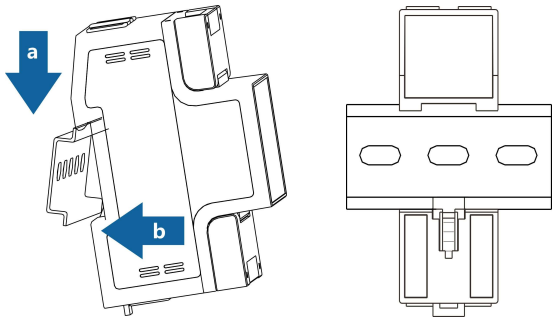
1.3 Recommended current transformers

Current transformer cable length of 6000 ± 20mm, if the cable is too long can be cut short, if the cable is too short can be extended cable (up to 15000mm).
The net weight of the transformer is 0.12kg.



2 Install

Mount the Smart Meter to the 35mm DIN rail. Hook it to the top edge of the rail and press down until it snaps into place.



3 Installing cables

3.1 Prepare Cables

- **100A/40mA wiring - External CT Access**

Cables	Port	Port number	Type	Conductor Cross-sectional Area Range	Outer Diameter	Source
Voltage Cable	L or UL	3	Multi-core Outdoor Copper Cable	4mm^2~25mm^2	5mm~10mm	Prepared by the customer
	N or UN	4				
Current transformer cable(single circuit)	I1*	9	/	/	/	Prepared by the customer or supplied with current transformers
	I1	10				
Current transformer cable(double circuit)	I2*	11(selectable)				
	I2	12(selectable)				

- **Communications cable**

Cables	Port	Port number	Type	Conductor Cross-sectional Area Range	Outer Diameter	Source
Communications cable (advise)	RS485_1 A	24	Two core outdoor twisted-pair shielded wire	0.25mm^2~1.5mm^2	4mm~11mm	Prepared by the customer
	RS485_1 B	25				
	RS485_2 A	5(selectable)				
	RS485_2 B	6(selectable)				

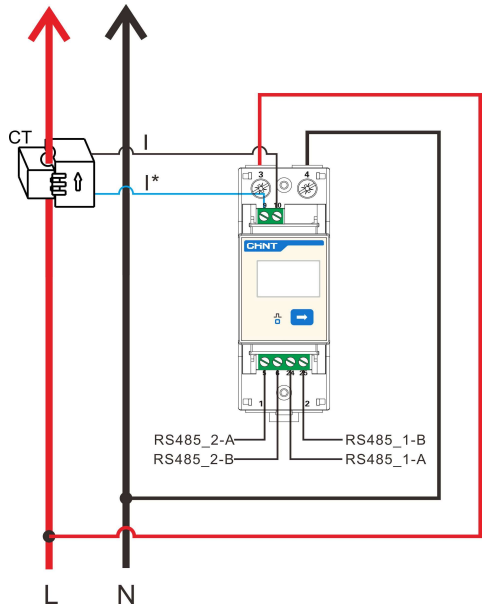
*The wiring method shall be based on the actual object.

NOTE

The maximum torque for terminal screws 3 and 4 is 1.7 N·m, and the recommended torque is 0.9 N·m to 1.1 N·m. The maximum torque for terminal screws 5, 6, 9, 10, 11, 12, 24 and 25 is 0.4 N·m, and the recommended torque is 0.15 N·m to 0.25 N·m.

3.2 Wiring Diagram

- **100A/40mA wiring - External CT Access**



CAUTION

The following conditions may result in electric shock or fire.

1. Before connecting cables, ensure that the Smart Meter is not damaged in any way.
2. Please ensure that the grounding wire is securely installed.
3. Before powering on, please ensure that the wiring is correct.

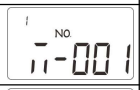
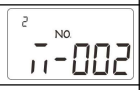
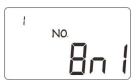
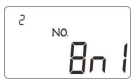
NOTE

If there is only one 485 port, there is no 5 or 6 terminal.

4 Displays project and parameter Settings

4.1 Display

The key "→" is used to switch the display interface and set the parameter disp to enable the rotating display function.

No.	Display interface	Instruction	No.	Display interface	Instruction
1		Total positive active energy = 1.20kWh, a superscript of 1 would indicate a first current loop	11		Secondcircuit power factor Ft = 1.000
2		Reverse total active energy = 1.00kWh, a superscript of 1 would indicate a first current loop	12		Frequency = 50.000 Hz
3		Total positive active energy = 1.20kWh, superscript bit 2 would indicate a second current loop	13		The first and second communications are simultaneously set to the 645 protocol with address high 00000000
4		Reverse total active energy = 1.00kWh, superscript bit 2 would indicate a second current loop	14		The first and second communications are simultaneously set to the 645 protocol with address high 00000001
5		Voltage U= 220.0V	15		The first communication serial port is Modbus and the communication address is 1
6		First circuit current I = 5.000 A	16		The Second communication serial port is Modbus and the communication address is 2
7		Second circuit current I = 5.000 A	17		Baud rate of 9600bps for the first communication serial port
8		First circuit active power P = 1.100kW	18		Baud rate of 9600bps for the Second communication serial port
9		Second circuit active power P = 1.100kW	19		The first communication serial port has 8 data bits, no parity, and 1 stop bit.
10		First circuit power factor Ft = 1.000	20		The Second communication serial port has 8 data bits, no parity, and 1 stop bit.

NOTE

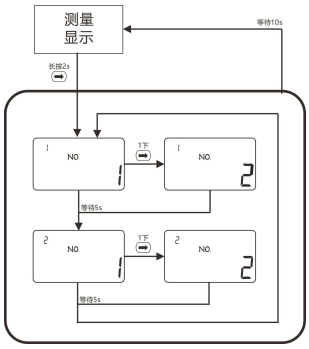
1,The 1 or 2 in the upper row of the communication parameter page is used to distinguish the two communication ports, if there is only one 485 communication, there is no display of two communication parameters.

2,When the meter is a single-loop metering meter, there is no second display interface and no loop number display on the electric parameter and power display page.

4.2 Parameter setting operation example

Description of pressing key: "→" means "add". Long press the key for 2s, the display interface enters the first Modbus address setting interface, short press to set the address size, stop operation and wait for 5s to automatically switch to the next setting. If it has not been operated, exit the key setting after 10s and return to the normal measurement display interface.

Description of pressing key



NOTE

1,If the communication is abnormal, check and set the parameters.
2,If the communication is single-channel, the time of key setting exit is 5s.
3,The range of communication address can be customized according to customer requirements, the default communication address ranges from 1 to 247.

5 Diagnosis, analysis and troubleshooting of common faults

Fault phenomenon	Reason analysis	Elimination
No display after the instrument being powered on	Incorrect wiring mode; Abnormal voltage supplied for the instrument;	1.If the wiring mode is incorrect, please connect based on the correct wiring mode (see the wiring diagram). 2.If the supplied voltage is abnormal, please supply the voltage on the instrument specification. If this is not the problem above, contact your local supplier.

6 Warranty and Service

We guarantee free reparation and change for the multi-meter if found any unconformity with the standard, under circumstance of that the users fully comply with this instructions and complete seal after delivery within 18 months.

7 Environmental protection

Dear clients,
Please assist us: when the product life is end, to protect our environment, please recycle the product or components, while for the materials that cannot be recycled, please also deal with it in a proper way. Really appreciate your cooperation and support.

8 Declaration

1、The products, services or functions you purchase are all subject to the commercial contract and terms signed with our company. All or part of the products, services or functions described in this manual may not be included in the scope of the products you purchased.
2、Unless otherwise agreed in the contract, the company does not make any express or implied statement or guarantee for the contents of this manual.
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4、The company is not responsible for any indirect losses caused by the provision, display or use of this information.

9 Manufacturer Information

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