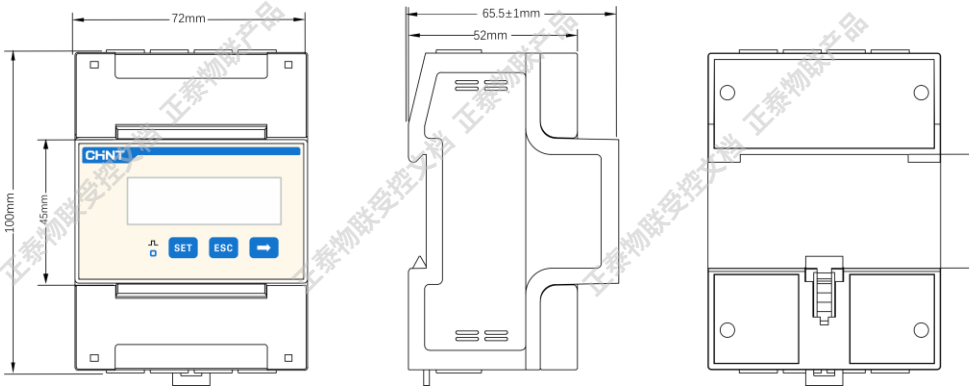
DTSU666-F series three phase four wire electronic energy meter
DSSU666-F series three phase three wire electronic energy meter
Quick Operation Guide

Issue : 001-01
Date: 2024-11

1 Product introduction

1.1 Outline and mounting dimensions

Model	Module	Dimension (L*W*H) mm	Suttle (kg)	Rail dimension
DTSU666-F	4	100×72×65.5	About 0.35	DIN35 standard guide rail
DSSU666-F	4	100×72×65.5	About 0.35	DIN35 standard guide rail



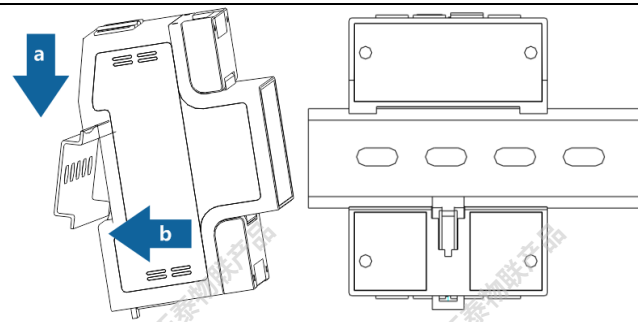
NOTE
The unnoted tolerance is ±1mm ;
The appearance, size and information are subject to actual objects.

1.2 Product performance specification

Model	DTSU666-F	DSSU666-F
Current specification	0.015-1.5(6)A	
Nominal voltage	3X220/380V…3×240/415V	3X380V…3×415V
Frequency	50/60Hz	
Current measuring range	0~6A	
Voltage measuring range	3x57.7/100V…3X277/480V	3x100V…3X480V
Accuracy class	Class C (0.5S)	
Network system	Three phase four wire	Three phase three wire
Baud rate	1200/2400/4800bps/9600bps (default 9600bps)/19200bps	
Temperature	-25℃~+55℃(nominal),-40℃~+70℃(ultimate)	
Way to install	Rail mounting	

2 Install

Mount the electric energy meter to a 35 mm DIN rail. Hook it into the top edge of the rail and press down until it snaps into place.



3 Installing cables

3.1 Prepare cables

Cables	Port	Port number	Type	Conductor Cross-sectional Area Range	Outer Diameter	Source
voltage cable	L1 or UA	2	Multi-core outdoor copper cable	1.5mm ² ~ 2.5mm ²	3mm~ 5mm	Prepared by the customer
	L2 or UB	5				
	L3 or UC	8				
	N or UN	10				
current transformer cable	IA*	1	Multi-core outdoor copper cable	4mm ² ~ 25mm ²	5mm~ 10mm	Prepared by the customer or supplied with current transformers
	IA	3				
	IB*	4				
	IB	6				
	IC*	7				
	IC	9				
Communications cable (advise)	RS485 A	24	Two core outdoor twisted-pair shielded wire	0.25mm ² ~ 1.5mm ²	4mm~ 11mm	Prepared by the customer
	RS485 B	25				

NOTE

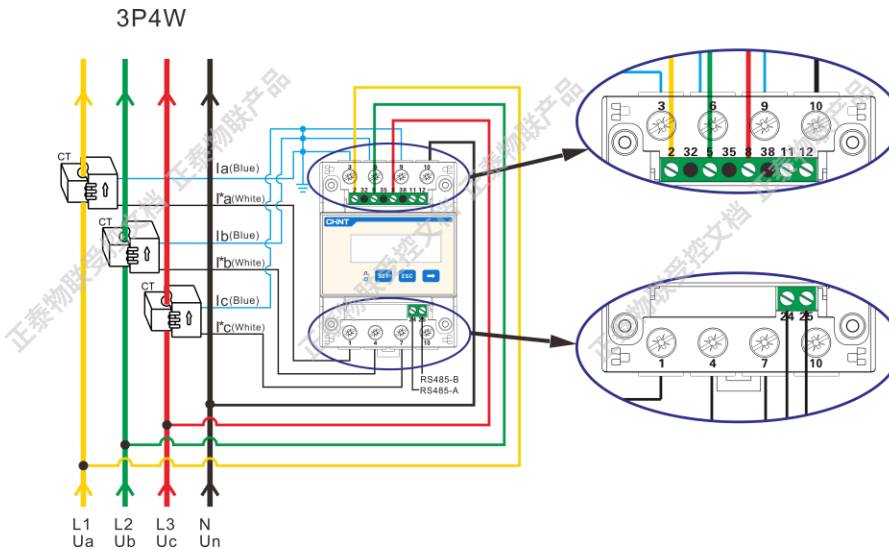
The maximum torque of terminal screws 1, 3, 4, 6, 7, 9, and 10 is 1.7N·m. The recommended torque is 0.9N·m~1.1N·m. The maximum torque of terminal screws 2, 5, 8, 24, and 25 is 0.4N·m. The recommended torque is 0.15N·m~0.25N·m.

3.2 Wiring diagram

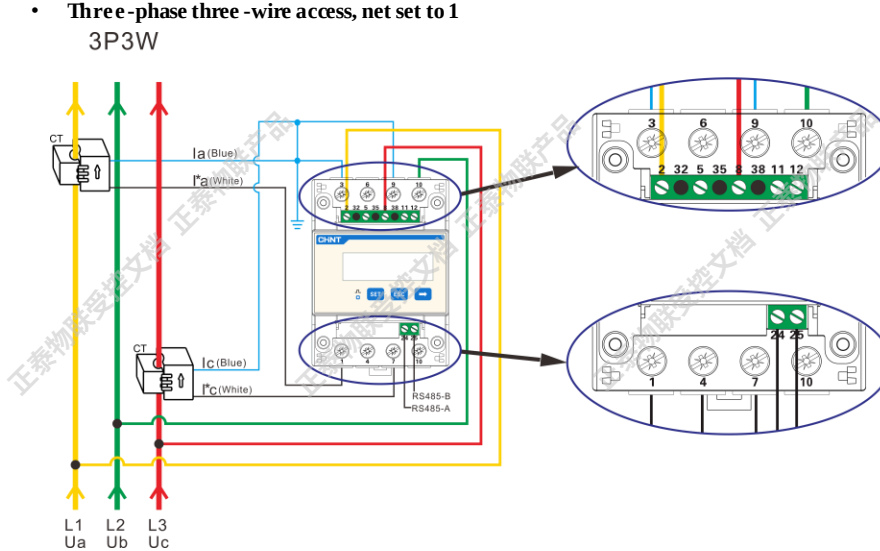
CT specification requirements: Accuracy class 0.5 or 0.5s, secondary side current 1A or 5A.

The L1, L2, L3, N are the same as Ua, Ub, Uc, Un.

- **Three-phase four-wire access, net set to 0**



- **Three-phase three-wire access, net set to 1**

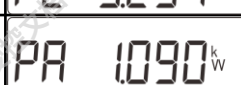
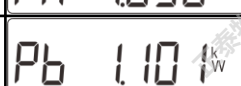
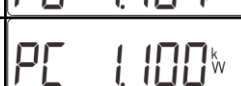
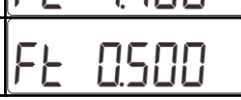


CAUTION Ensure that the ground cable is securely installed. Improper grounding may cause electric shock to the human body.

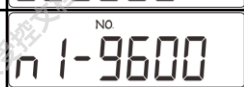
4 Displays project and parameter Settings

4.1 Display

To switch to the screen, press ESC or ⇨. Press ESC to the previous page and ⇨ to the next.

No.	Display interface	Instruction
1		Total active energy = 10000.00kWh
2		Total positive active energy = 10000.00kWh
3		Total inverse active energy =2345.67kWh
4		A-phase voltage = 220.0V
5		B-phase voltage = 220.1V
6		C-phase voltage = 220.2V
7		A-phase current = 5.000 A
8		B-phase current = 5.001A
9		C-phase current = 5.002A
10		Combined active power = 3.291kW
11		Phase A active power = 1.090 kW
12		Phase B active power = 1.101 kW
13		Phase C active power = 1.100 kW
14		Phase power factor PFt=1.000 (direction consistent with active power)

Continue form

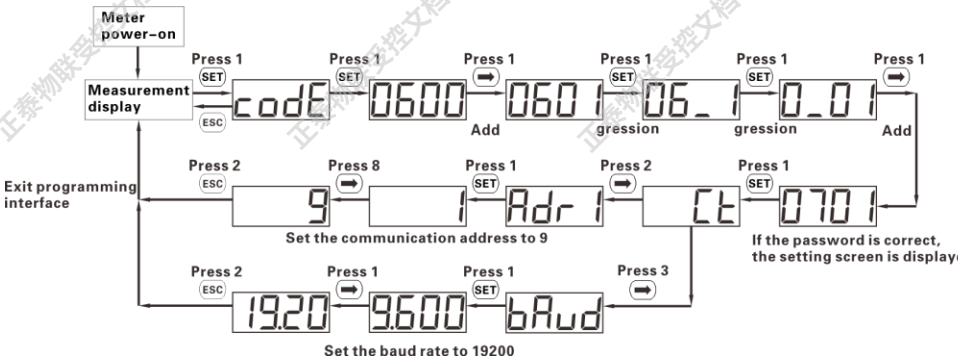
No.	Display interface	Instruction
15		Phase A power factor PFa=1.000
16		Phase B power factor PFb=1.000
17		Phase C power factor PFc=1.000
18		Frequency =50.000Hz
19		T1 Total active energy = 10000.00kWh
20		T2 Total active energy = 10000.00kWh
21		T3 Total active energy = 10000.00kWh
22		T4 Total active energy = 10000.00kWh
23		T5 Total active energy = 10000.00kWh
24	 	The address of DLT/645 is 000000000001
25		The communication serial port has 8 data bits, no parity, and 1 stop bit, 9600bps
26		The address of Modbus is 1
27		The time is 2018.05.01
28		The date is 09:08:57

4.2 Key parameter display

Parameter	Value range	Instruction
Ct	1~9999	Current ratio, used for setting the input loop current ratio: When the current is connected to the line via the transformer, Ct=the rated current of the primary loop / the rated current of the secondary circuit; When the current is directly connected to the line, Ct shall be set as 1.Ct * Pt ≤ 250000.0
Pt	0.1~999.9	Voltage ratio, used for setting the voltage ratio of the input loop;When the voltage is connected to the line via the transformer, Pt= the rated voltage of the primary loop / the rated voltage of the secondary circuit;When the voltage is directly connected to the line, Pt shall be set as 1.0.Ct * Pt ≤ 250000.0
Prot	n.1 n.2 E.1 o.1	The parity and the stop bit of the protocol n.1: no parity and 1 stop bit n.2: no parity and 2 stop bit E.1: even parity bit and 1 stop bit o.1: odd parity and 1stop bit
Adr	1~247	The communication serial port Modbus protocol communication address
bPS	1.200; 2.400; 4.800; 9.600; 19.20;	Baud rate of the communication serial port 1.200：1200bps; 2.400：2400bps; 4.800：4800bps; 9.600：9600bps; 19.20：19200bps;

4.3 Parameter setting operation example

Key description: The following figure will set the first communication parameters as an example to explain the key operation. After the meter is powered on, press SET to enter the codE page. On the codE screen, enter the correct password (701 by default) and press SET to enter the setting screen. On the setting screen, press ⇧ to find the parameter to be SET and press SET to enter, press ⇧ to set the parameter, press Set to proceed forward, and press ESC to exit after parameter setting. If you need to set parameters, follow the following logic.



NOTE If the communication is abnormal, check and set parameters.

5 Diagnosis , analysis and elimination for common faults

Fault phenomenon	Reason analysis	Elimination
No display when powered on	1. Incorrect wiring. 2. Abnormal voltage for the instrument.	1. If it is wrongly connected, please reconnect based on the right wiring mode (see the wiring diagram). 2. If the supplied voltage is abnormal, please choose the specified voltage.

6 Warranty and Service

The manufacturer implements three guarantees for product quality. Within 18 months from the date of delivery, if the user fully complies with the provisions of this manual and the factory seal is still intact, the instrument is found damaged during use, and the company is responsible for free repair or replacement.

7 Environmental protection

Dear customer:

Please help us do one thing, when this product at the end of its life, in order to protect our environment, please do a good job of recycling the product or its parts and materials. Please also dispose of materials that cannot be recycled. Thank you very much for your cooperation and support.

8 Declaration

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9 Manufacturer information

Manufacturer	Zhejiang Chint IoT Technology Co.,Ltd.
Address	Wenzhou Daqiao Industrial Park, Beibaixiang Town, Yueqing City, Wenzhou City, Zhejiang Province, China
Tel.	+86-577-62877777
Service Hotline	+86-400-8177777
Anti counterfeiting complaints	+86-577-62789987
Website	http://aiot.chint.com
E-mail	ztwl@chint.com