

## Contact

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# Six-circuit Multi- function Meter

Product Model:

## DTSD422-D3-G



## Introduction

Six-circuit Multi-function Meter is designed with advanced single chip processing system. It features in easy to install, high reliability and high accuracy. It can measure electricity consumption of two-circuit three-phase and adopt open-type CT. Without changing the original wiring, it can measure voltage, current, power, frequency, power factor, active energy data and etc.,

Embedded GPRS function enables plug and play.

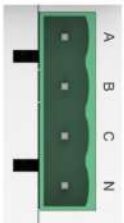

## Feature

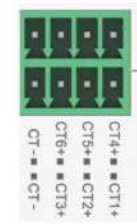


1. Two-way measuring for consumption & production data
2. Measure two-circuit three-phase consumption @ production data
3. Width: 36mm, standard DIN-Rail 35mm, easy to install
4. Open-type CT design
5. Embedded GPRS communication, compatible with SOLARMAN platform

## Basic Parameter

Catalogue	Parameter	Value
Hardware Parameter	Remote Communication	GPRS
	Serial Communication	RS485
	Rated Voltage	3x230/400V
	Rated Current	6x5 (100) A
	CT Length	2m
	Rated Frequency	50/60Hz
	Accuracy	Active 1.0, Reactive 2.0
	Wiring Connection	Three-phase Four-circuit
	Start-up Current	≤0.004Ib
	Consumption	≤3.5W
	Working Temperature	-25°C ~ +60°C
	Working Humidity	≤95% (No condensation)

# Interface Identification

Area	Picture	Description	Network Name	Type	Instruction
1		L-line A	-	AC Interface	Three-phase Power A Input
		L-line B	-	AC Interface	Three-phase Power B Input
		L-line C	-	AC Interface	Three-phase Power C Input
		N-line	-	AC Interface	Three-phase Power N Input
2		RS485 B Receiving & Sending Data	485B-	I/O	-
		RS485 A Receiving & Sending Data	485A+	I/O	-
		GND	GND	Power	Power: GND
		GND	GND	Power	Power: GND
		P2+	Active Pulse 2	Strong current interface	Baud rate: 2400 Check: Parity check Stop: 1 Data: 8
		P1+	Active Pulse 1	Strong current interface	

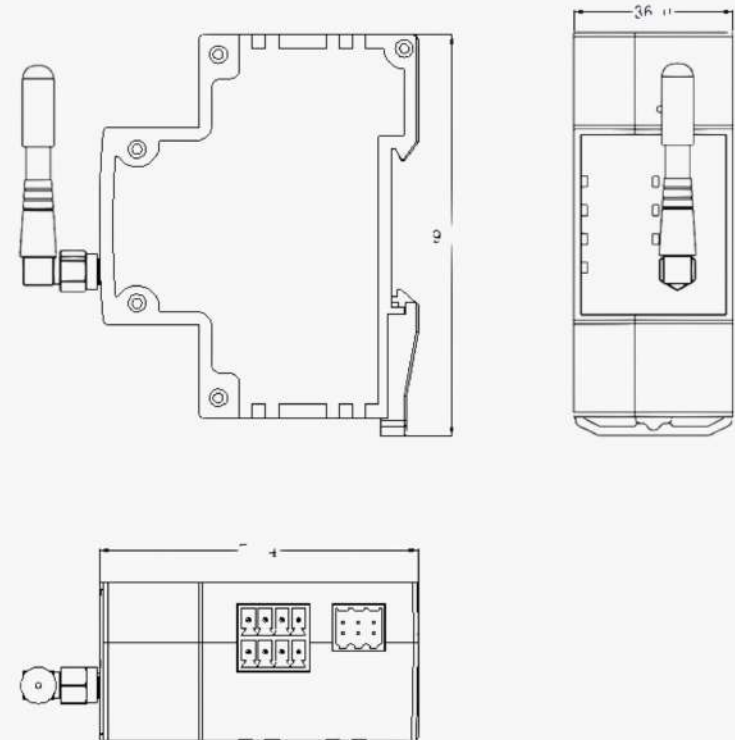
3	CT1+		CT 1+	CT1+	-	No.1 three-phase to P1
	CT2+		CT 2+	CT2+	-	
	CT3+		CT 3+	CT3+	-	
	CT-		CT GND	CT-	-	No.2 three-phase to P2
	CT4+		CT 4+	CT4+	-	
	CT5+		CT 5+	CT5+	-	
4	RESET		Reset Key	RESET	-	Reboot or reset
	SIM		SIM card slot	SIM	MicroSIM card	SIM card



## Indicator Lights Instructions

No.	Light	Implication	Instruction
1	POWER	Meter Power (Green)	Flash: Normal status Off: No power
2	ALARM	Alert Light (Red)	Flash: Abnormal Off: No alert
3	P1	No.1 Three-phase Pulse (CT1, CT2, CT3) (Red)	Flash: Consumption
4	P2	No.2 Three-phase Pulse (CT4,CT5,CT6) (Red)	Flash: Consumption
5	COM	Communication status with WiFi module and meter (Green)	1.On: Module connected to meter 2.On 400ms/Off 1600ms: Module initializing 3.On 400ms/Off 400ms: Data transmitting 4.Off: Fail to communicate with meter
6	SER	Communication status with WiFi module and server (Green)	1.On: Module connected to server 2.On 400ms/Off 400ms: Module connected to router 3.Off: Fail to connect with router
7	NET	Logger running status (Green)	1.On 64ms/Off 800ms: GPRS module not registered 2.On 64ms/Off 2000ms: GPRS module registered 3.On 64ms/Off 600ms: GPRS module transmitting data 4.Off: GPRS module not running

## Product Size (Unit: mm, Accuracy: 2%)



# Product Picture

## CT Size&Picture



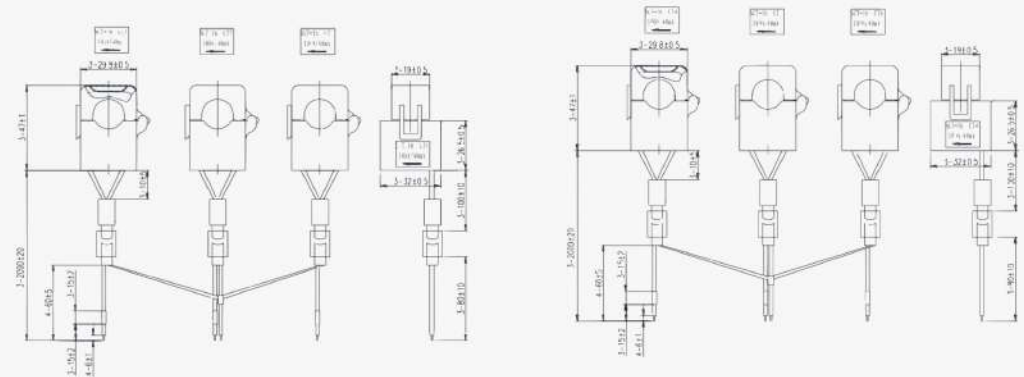
Front View



Left View



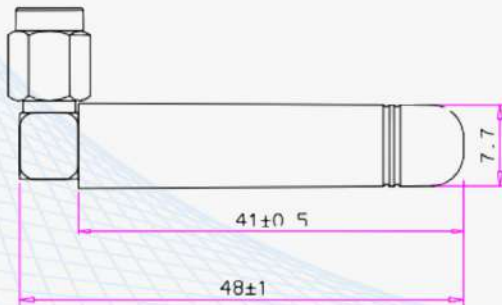
Right View



CT Characteristic

	Value
Rated Frequency	50/60 Hz
Working Temperature	0°C ~ 40°C
Relative Humidity	≤95%
Rated Current I	100A
Rated Output Current I	40mA
Rated Load	20Ω
Accuracy	0.5
DC Component Even Harmonic	None
AC Withstand Voltage	Power frequency voltage (primary winding and secondary winding) 2.5KV/min, No breakdown, Arcing phenomenon, Leakage current < 1mA
Insulation Resistance	Primary winding and secondary winding ≥1000 MΩ/500Vdc

Antenna Size&Parameter



Main specification of external pepper GPRS antenna

- 1.MPEDANCE:50Ω
- 2.FREQUENCY RANGE:900/1800MHz
- 3.VSWR:2.00 Max.
- 4.PEAK GAIN:2dBi TYICAL
- 5.RADIATION:OMNI-DIRECTIONAL
- 6.POLARIZATION:VERTICAL
- 7.WORKING TEMPERATURE:-40°C~+60°C

## Measuring Function

Voltage, frequency, split-phase current(CT1-CT6), power factor,

total split-phase positive/negative power(CT1-CT6),

total split-phase positive/negative energy(CT1-CT6),

No.1 three-phase total positive/negative power(CT1-CT3),

No.1 three-phase total positive/negative energy(CT1-CT3),

No.1 three-phase total positive/negative reactive power(CT1-CT3),

No.1 three-phase total positive/negative reactive energy(CT1-CT3),

No.2 three-phase total positive/negative power(CT4-CT6),

No.2 three-phase total positive/negative energy(CT4-CT6),

No.2 three-phase total positive/negative reactive power(CT4-CT6),

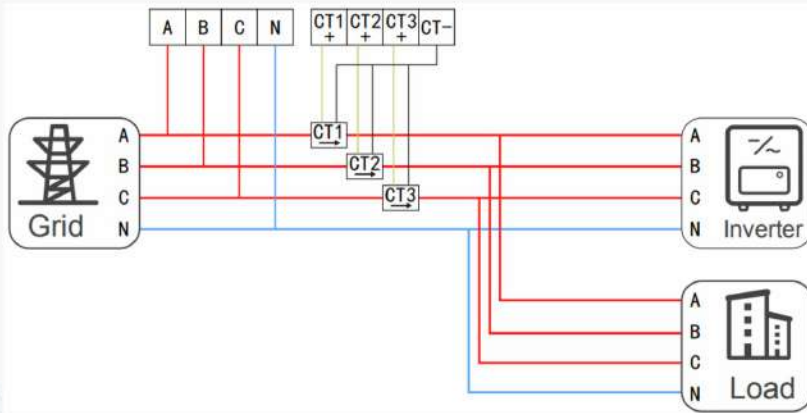
No.2 three-phase total positive/negative reactive energy(CT4-CT6).



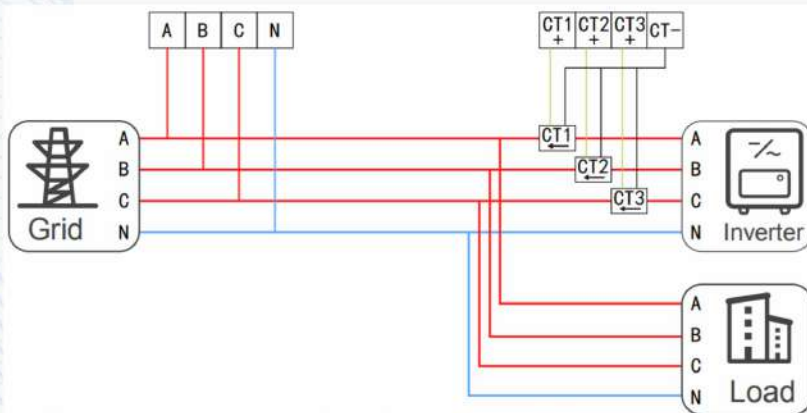
# Measuring Scenario

## One-circuit Three-Phase

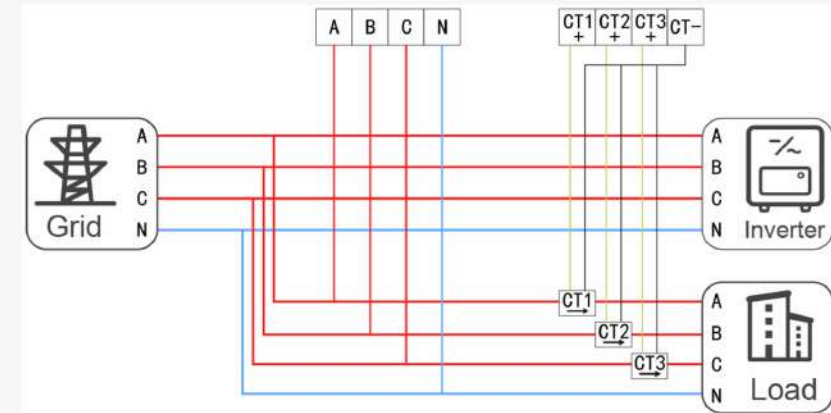
Installation position: Grid side



Installation position: Production side

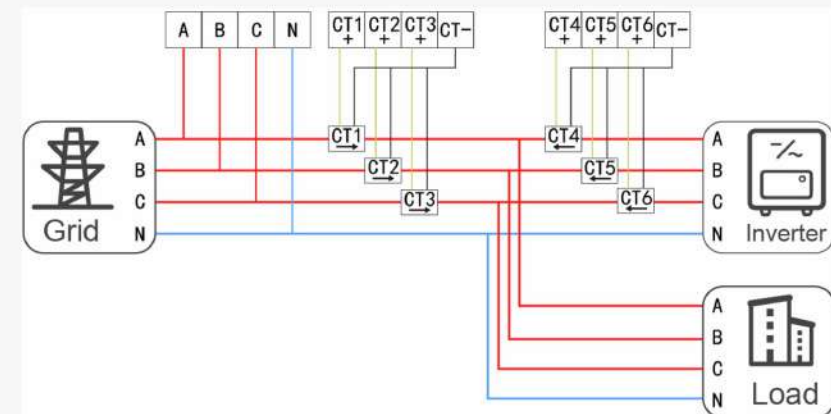


Installation position: Consumption side

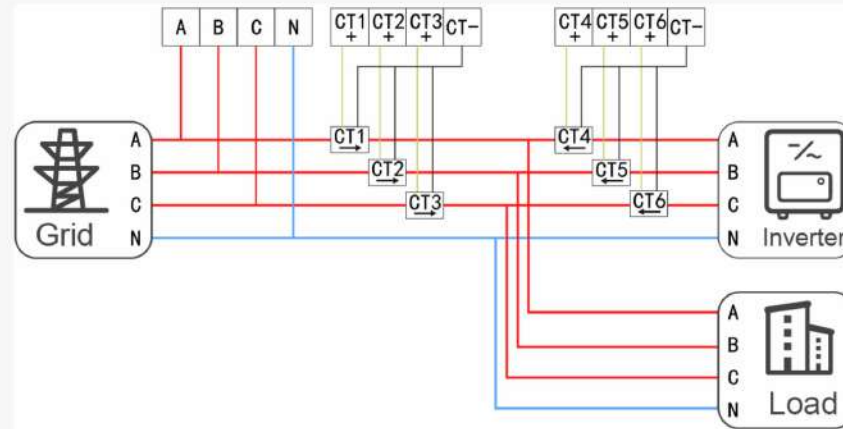


## Two-circuit Three-Phase

Installation position: Grid side+Production side



Installation position: Grid side+Consumption side



Installation position: Production side+Consumption side

