DTS238-4 ZN three phase din rail type multi-function watt hour meter(D3405)



The meter is used in three phase four wire power grid. The meter is designed to measure AC active energy and reactive energy with time of use(TOU) function(the power flow of sharp time, peak time, flat time and off-peak time) and variable parameter. All of its functions comply with the relative technical requirement for class 1 three phase watt hour meter in IEC61036 and its data communication rules obey the requirement of DL/T645 or MODBUS-RTU. It is a long life meter with the advantage of high stability, high over load capability, low power loss and small volume.

Basic Function

- ★LCD display
- ★ Bi-directional total active energy and reactive energy measurement , reverse active/energy measure in the total active/reactive energy
- ★ The meter also display real voltage, real current, real power, real power factor, real frequency, import active energy , export active energy
- ★The meter has 14 programmable interval tables, of which can set up to 14 intervals as four tariff during 24 hours. The minimum units of each tariff interval can be set up as 1 minute
- ★Energy frozen monthly(last 12 months), all data store for 10 years at power failure
- ★Pulse LED indicates working of meter, Pulse output with optical coupling isolation
- ★Loss phase indication in LCD
- ★RS485 communication port, MODBUS-RTU protocol
- ★35mm din rail installation

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Optional Function

- ★Reset energy function(the reset energy kWh display is dependent with the total energy display, this reset will not affect the total energy)
- ★LCD display with backlight

Technical Data

Rate voltage	DTS238-4 ZN three phase four wire 3x127/220V, 3x120/208V, 3x220/380V, 3x230/400V, 3x240/415V	
Working voltage range	0.8~1.2Un	
Rate Current	5A/CT, 1.5(6)A, 5(60)A,10(100)A, or other as required	
Frequency	50Hz or 60Hz	
Connection mode	CT type or Direct type	
Display	LCD	
Accuracy class	Active class 1.0 Reactive class 2.0	
Power consumption	<2W/10VA	
Start current	0.004lb	
Impulse Voltage	6kV 1.2µs waveform	
Over current withstand	30Imax for 0.01s	
IP grade	IP20	
Constant	400~6400 imp/kWh	
Clock accuracy	<0.5s/day (23°C)	
Pulse output	Passive pulse, pulse width is 80 ± 5 ms	
Communication port	RS485 port, baud rate 1200~9600 bps, default is 9600bps,	
	address 1 \sim 247, None parity, stop bits 1, data bits 8.	
Executive standard	DIN 43880, IEC62053-21, IEC62052-11, MODBUS-RTU	
Work temperature	-30°C∼70°C	
Outline dimension LXMXH	70x90x70mm	
Weight	Approx 0.6kg	

Accuracy

Voltage	0.5%
Current	0.5%
Power Factor	1%
Active power	±1%
Reactive Power	±2%
Active Energy (kWh)	Class 1.0
Reactive Energy (kvarh)	Class 2.0

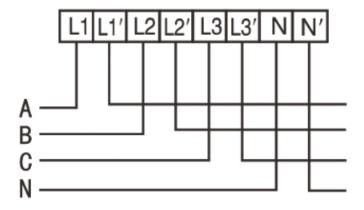
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Environment

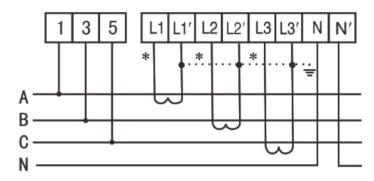
Operating temperature	-25℃~55℃
Storage temperature	-40℃~80℃
Reference temperature	23 ℃ ± 2 ℃
Relative humidity	0 to 95%, non-condensing
Altitude	Up to 2500m
Warm up time	10s
Mechanical Environment	M1
Electromagnetic Environment	E2
Degree of pollution	2

Wire connection

(1) three phase four wire direct connection

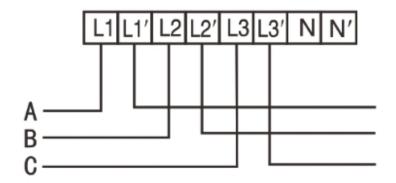


(2) three phase four wire through current transformer connection

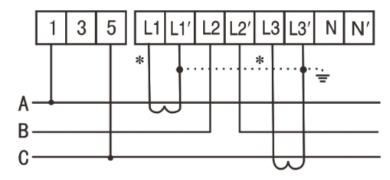


(3) three phase three wire direct connection

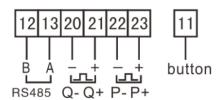
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(4) three phase three wire through current transformer connection



Terminal function



Outline dimension

