

DTS238-7 ZN three phase din rail type multi-function watt hour meter(D1704)



The meter is used in three phase four wire power grid. The meter is designed to measure AC active energy 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 with backlight
- ★Bi-directional total active 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
- ★Keypad for LCD display step by step
- ★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

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)

Noting : other voltage , current are also available . Other function also can be special design as customer requirement

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Technical Data

| | |
|-------------------------|--|
| Rate voltage | DTS238-7 ZN three phase four wire 3x127/220V, 3x120/208V, 3x220/380V, 3x230/400V, 3x240/415V |
| | DSS238-7 ZN three phase three wire(two phase three wire) 2x120/208V, 2x127/220, 3x220V, 3x380V, 3X100V |
| 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 | <0.5W/5VA /each phase |
| Start current | 0.004Ib |
| 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 1~247, 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 | 125x88x73mm |
| Weight | Approx 0.7kg |

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 |

Environment

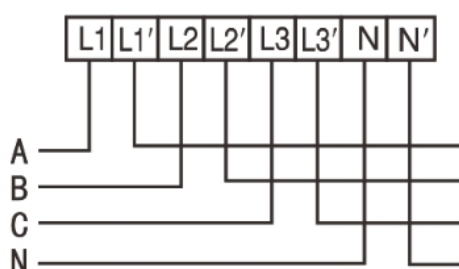
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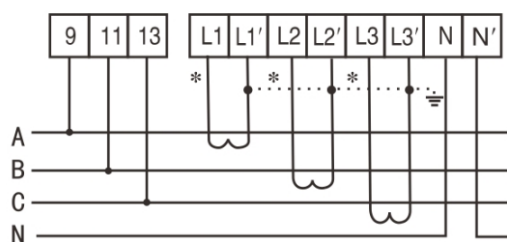
| | |
|-----------------------------|--------------------------|
| Operating temperature | -25°C~55°C |
| Storage temperature | -40°C~80°C |
| Reference temperature | 23°C±2°C |
| Relative humidity | 0 to 95%, non-condensing |
| Altitude | Up to 2500m |
| Warm up time | 10s |
| Mechanical Environment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

Wire connection

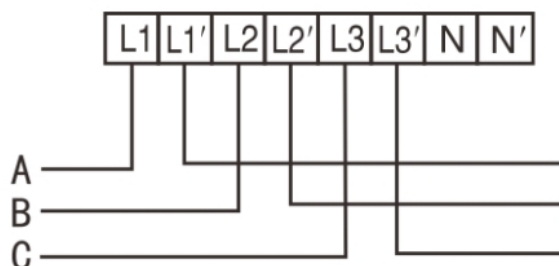
(1) three phase four wire direct connection



(2) three phase four wire through current transformer connection



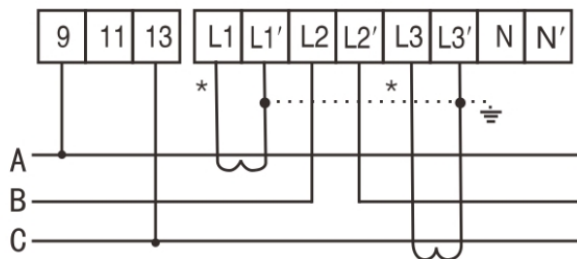
(3) three phase three wire direct connection



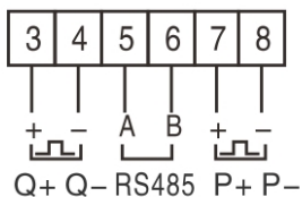
(4) three phase three wire through current transformer connection

Noting : other voltage , current are also available . Other function also can be special design as customer requirement

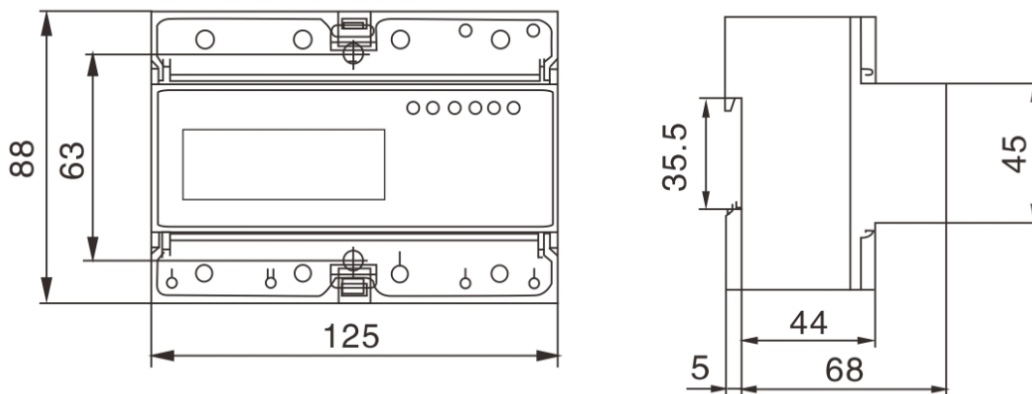
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Terminal function



Outline dimension



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