DTS858

3-phase 4-line electronic active meter(DIN RAIL)



1.Application

DTS858 type 3-phase 4-line Din Rail electronic meter adopts micro-chip technology to measure the energy: adopts large-scale integrated circuit, digital sampling technology and SMT technology. This product conforms to the standard of GB/T17215.312-2008,IEC62053-21.
It can measure the positive active energy directly,has 7 bits LCD display, and has high reliability,small volume,light weight,beautiful outlook,advanced technology,35mm Din Rail install. And it also has good anti-electromagnetic interfere,low consumption,high-accuracy,high-overload,high reliability,anti-theft,long-life.
This meter is applied to measure 3-phase AC active meter of rated frequency 50Hz or 60Hz, install indoors and the temperature shall between -25°C~+55°C,relative humidity shall no more than 95%, and without no corrosion gas.

2.Main technical parameter

specification

Name	Model No.	Accuracy	Rated voltage Ub	Rated current (A)
3-phase 4-line electronic meter	DTS858型	1 level 2 level	220/380V 57.5/100V	1.5(6)、2.5(10)、5(20)、5(30)、10(40)A、15(60)A、20(80)A、30(100)A

note: In the rated current item, a(b), a is Calibration current Ib, (b) is Max rated current Imax.

technical parameter

◆ error limit:

meter basic error limit with balance load

current		factor(cosΦ)	percent of error limit(%)	
direct wiring	through CT wiring		1 level	2 level
0.05Ib	0.02 Ib	1.0	±1.5	±2.5
0.1 Ib	0.05 Ib	0.5L	±1.5	±2.5
		0.8C	±1.5	-
0.1 Ib~1max	0.05 Ib~1max	1.0	±1.0	±2.0
0.2 Ib~1max	0.1 Ib~1max	0.5L	±1.0	±2.0
		0.8C	±1.0	-

meter basic error limit with 1-phase load

current		factor(cosΦ)	percent of error limit(%)	
direct wiring	through CT wiring		1 level	2 level
0.1 Ib ~1max	0.05 Ib ~1max	1.0	±2.0	±3.0
0.2 Ib ~1max	0.1 Ib ~1max	0.5L	±2.0	±3.0

◆ start

Under rated voltage,rated frequency and cosΦ=1,when meter load current is following value,meter can start and measure continuously.

Meter type	Accuracy 1 level	Accuracy 2 level
direct wiring	0.004Ib	0.005Ib
through CT wiring	0.002Ib	0.003Ib

◆ shunt run

when current circuit has no current, but the voltage circuit has 115% rated value, meter test impulse output shall no more than one impulse.

◆ Insulation performance

all circuit can withstand impulse voltage of wave-shape 1.2/50μs, peak 6kV between the shell,under different poles to take continuous 10 times test,it do not happen arc-discharge or break. all circuit can withstand AC 2kV of AC50Hz, sin shape between shell or metal part which is on the outside of shell for one minute without break.

◆ Ultimate voltage:70~130% Ub

◆ Power consumption:≤2W and 10VA

◆ electronic energy measure

error ≤±[0.02%E±2 x 10-(a+1)].

(E for total record of each period,a for min value of total value)

auto different power tidal direction

test positive and negative total power consumption

◆ display

mechanical counter indicate

◆ data saving

it can storage 12 months. If after power-off, it can storage for 10 years.

3. Install and use

Installation notes and methods

◆ Through factory inspection,the qualified product is EnSeal letterpress printing,so it can be using immediately. If it has no seal or storage for a long time,it shall be inspected again.

◆ Please check the product after unpacking,if there is any damage of inner package or shell,do not install this kind product.

◆ Install meter shall be done by professionals,and please read over this manual.

◆ meter shall install indoors,dry and ventilated place, it fits 35mm Din Rail. Install board shall fix on the strong and fire resistance wall.

◆ Install place shall have no dirt and metal corrosion.

DTS858

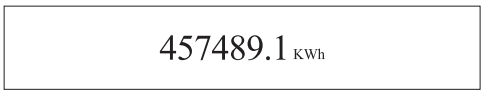
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- Install wiring shall be following the wire diagram on the box or the relative diagram of this manual. It is better to input multiplied cooper wire to avoid the poor contact.
- when meter is wiring to power grid correctly, the power indicator would be lighten always.

Instruction

- The Lightning protection measures shall be taken in the area of more lightening.
- meter load capacity is between 0.05 Ib ~ 1max (direct type) or 0.02 Ib ~ 1max(through CT type). Above this capacity, it will reduce the accuracy of meter or burn AC coil.
- when meter is equipped with CT,that the meter which is through CT connect shall be read to multiples CT radio to have the actual amount of energy.
- data display: adopts 7 bits LCD
- power indicate: L1,L2,L3, 3 LED indicators lights for normal operate of three-phase power-supply. And when one phase loss the phase, the relative indicator will turn off.
- Impulse indicate: Pulse indicator lights for detecting the energy pulse(after sampling,pulse indicator lights for 80ms)
- Reverse power indicate: lights for forwards electric using
- data display mode
- LCD display type, as following:

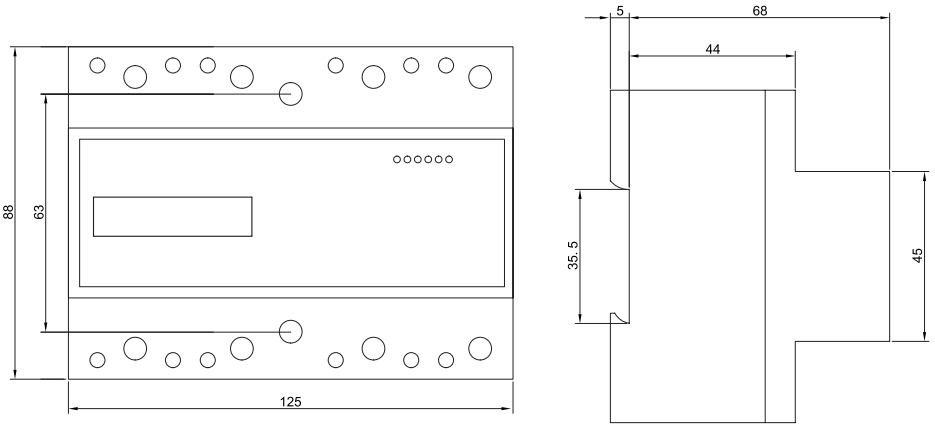
total energy consumption NNNNNN.N,likes the following fig



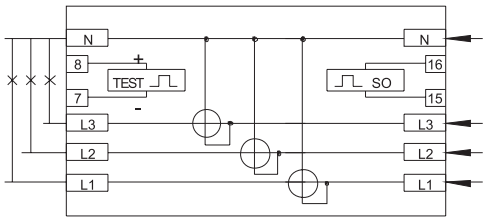
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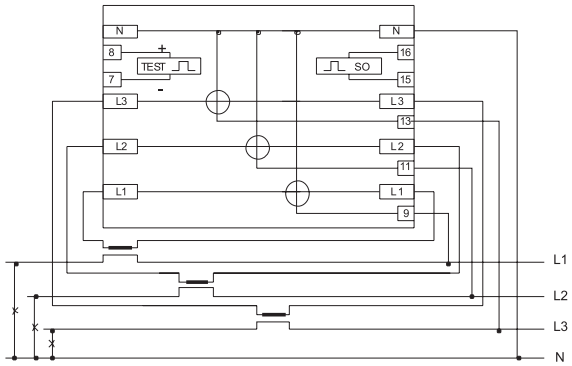
4. Shape and diagram diagram

shape



wiring





5.Measure mode

meter has the photoelectric coupling type meter pulse test output port, at wiring terminal box, wire the test device +5VDC to No.8(positive pole), signal line s wiring to No.7(negative pole).

6.Measure mode

- In the process of transportation and unpacking, impact shall be avoid, according to rule ZBY00281.
- meter shall be storage in the original package,temperature shall between -30°C to +65° C,relative humidity shall below 95%, and avoid the corrosion gas.
- The storage stack shall no more than 5 boxes. And the unpacked meter stack shall no more than 5 levels.