

## DDS858

single-phase electronic meter  
(DIN-Rail type)



### 1. Application

DDS858 single-phase electronic energy meter, is applied to House, Store electricity measurement. This meter adopts low-consumption circuit technical and SMT manufacture to measure the AC single-phase active power of rated voltage 220V, rated frequency is 50Hz/60Hz. This production conforms to standard of IEC61036:2000(IEC62053-21:2002).

### 2. Function feature

1. Energy measurement has high-accuracy and stable, no needs to adjust, can extend verification cycle, and reduce the meter test and school.
  2. Bidirectional measurement function, accurate measurement of both positive and negative direction of the power. And in one direction the cumulative power, has anti-theft function.
  3. The photoelectric isolation technology is used to output electric energy pulse signal, and can be used for error detection. (passive)
  4. It adopts manganin diverter as current loop, to improve the meter overload capacity, and overload capacity up to more than 6 times.
  5. It adopts large scale integrated circuit and SMT surface mount technology
- This product has advantages of wide load, high accuracy, high reliable, high sensitivity, small volume, low consumption, strong overload, convenient install.

### 3. Operate principle

Meter takes current and voltage samples through the current diverter and voltage diverter, through A/D convert, DSP multiplication, D/F convert, frequency division, count driver, and output impulse to drive the counter metering electricity and drive impulse indicator light display.

### 4. Main technical parameter

specification	Model No.	DDS858
level indicate		1 level, 2 level
reference voltage		220V
basic current(Max)		1.5(6)A、2.5(10)、5(20)A、10(40)A、15(60)A、20(80)A

Note: special require shall be costumized.

Basic error:  $I_b$  is basic current  $I_{max}$  is Max current

load current	power factor $\cos\Phi$	basic error limit(%)	
		1 level	1 level
$0.05I_b \leq I < 0.1I_b$	1	$\pm 1.5$	$\pm 2.5$
$0.1I_b \leq I \leq I_{max}$	1	$\pm 1.0$	$\pm 2.0$
$0.1I_b \leq I < 0.2I_b$	0.5L 0.8C	$\pm 1.5$	$\pm 2.5(0.8C \text{ no require})$
$0.2I_b \leq I \leq I_{max}$	0.5L 0.8C	$\pm 1.0$	$\pm 2.0(0.8C \text{ no require})$

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### 1.start

meter under reference voltage,reference frequency and power factor is 1,when load current is 0.4% Ib(1 level Table),0.5%Ib(2 level Table),meter shall start and measure energy constantly.

### 2.shunt running

when voltage circuit is 115% reference voltage,current circuit has no current,meter output shall no more than 1impulse.

### 3.Operate voltage range

Operate operate voltage:0.9-1.1 reference

Ultimate operate voltage:0.7-1.2 reference

### 4.Power consumption:≤2W and 10VA

### 5.Environment condition

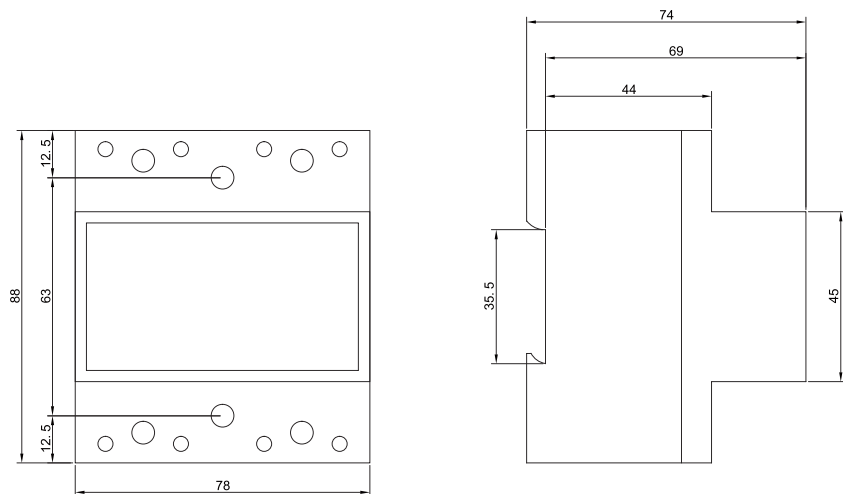
Normal operate temperature:-10°C-+45°C

Ultimate operate temperature:-25°C-+55°C

Humidity≤85%

## 5.Install and operate

### 1. shape and install dimension

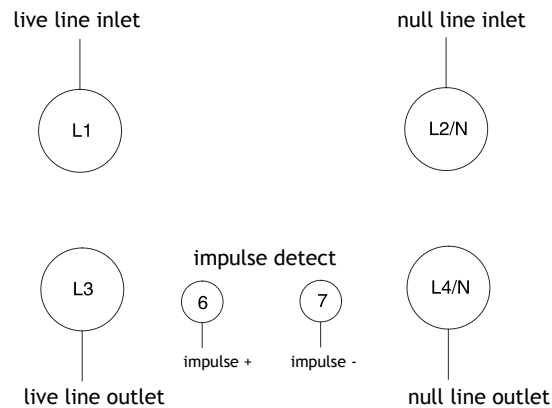


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### 2. wiring diagram:



3. It should check the seal whether is completed, if it has no lead sealing or storage for one year more, it shall be sealed by the relative department.

4. Meter shall install at the indoors and on the wall of drying, ventilation, fire resistance, strong, height above 1.8m, ambient environment shall have no corrosion gas, temperature:  $-25^{\circ}\text{C}$  ~  $+55^{\circ}\text{C}$ , relative humidity shall no more than 85%

5. Meter counter from 0 to 99999.9, display is actual electricity consumption.

6. If any fault is happening, user shall not open it by themselves.

7. Red light flashing, means that meter is count amount. Red light can stay on or off state, is normally operating.

### 6. Transport and storage

Meter transport shall not be influenced by strong impact, and put according to the marks requirement on the cartons.

Meter Storage shall be in the original package, temperature  $-25^{\circ}\text{C}$  ~  $70^{\circ}\text{C}$ , the relative humidity shall no more than 85%, have no corrosion gas, and have moisture-proof.

Electric meter which is in the warehouse should be placed on the bench, stack height shall be no more than six boxes. After unpacking, the odd packaging meter stack height does not exceed 10.