



DDS28

Single Phase

Single-phase Watt-hour Meter

DDS28

Technical Description



1.) General

DDS28 static single-phase watt-hour meter measures active energy in single-phase three-wire alternating current power grids at rated frequency 60Hz and voltage 240V. The meter complies with the international standard IEC 61036 and the accuracy class is 1.

Featuring high accuracy and reliability, it also prevents the illegal action of pilfering electricity. The reliability and service life of the meters have been greatly improved by adopting large-scale integration (LSI) and SMT as well as long-life key components of international brand.

The meters have a solid structure that is suitable for household power consumption and long-life running. Provided with pulse output, the remote control detecting of consumption locale is available.



2.) Structures

The exterior structure of the meters adopts bakelite integrative base, transparent polycarbonate meter cover and black polycarbonate extended terminal cover, and is solid and durable. The materials comply with the requirement of insulation protective-class II.

The display adopts segment code LCD with five integers and one decimal. The minimum scale of the LCD display is 0.1 kWh.

With E²PROM non-losable memory inside the meter, the data will be kept invariably for 40 years after power down.

LED indicates the operation state of meter, whose flicker frequency is equal to the pulse constant of meter.

The meter is provided with optical isolated transistor pulse output through a couple of terminals.

3.) Function

- a) Forward active energy measurement.
- b) LCD display.
- c) Pulse LED indicates the operation state.
- d) Passive pulse output with optical coupling isolated.
- e) Transformer connection

4.) Technical Data

4.1 Electric parameters

Reference Voltage: 240V

Reference Frequency: 60Hz

Basic Current (maximum current): 5 (20) A

Rating current of transformer I_n : 5A

Rated Voltage Range: $0.7U_n \sim 1.2U_n$

Starting Current: $0.004I_b$

No-loaded Running: $\leq 1 \text{ imp}$

Power Consumption: $\leq 0.7W$ (6VA)

Working Temperature Range: $-20^\circ\text{C} \sim +65^\circ\text{C}$

Relative Humidity: 25%~ 95%

Insulation level:

Withstanding A.C. voltage for 60 Hz, 1min $> 4kV$

Withstanding impulse voltage $1.2/50 \mu s > 6kV$

Service Life: ten years

Accuracy: Details in the following diagram

Load current	Power factor COS Φ	Error limit (%)
		Class 1
0.5I _b	1	± 1.5
0.1I _b -I _{max}	1	± 1.0
0.1I _b	0.5 (L)	± 1.5
	0.8 (C)	± 1.5
0.2I _b -I _{max}	0.5 (L)	± 1.0
	0.8 (C)	± 1.0

4.2 Mechanical parameters

Outline size: H ≤ 212mm, W ≤ 116mm, D ≤ 58mm (fig 1)

Installation size: 140 × 96mm

Net weight: 0.6kg

Gross weight: 0.7kg

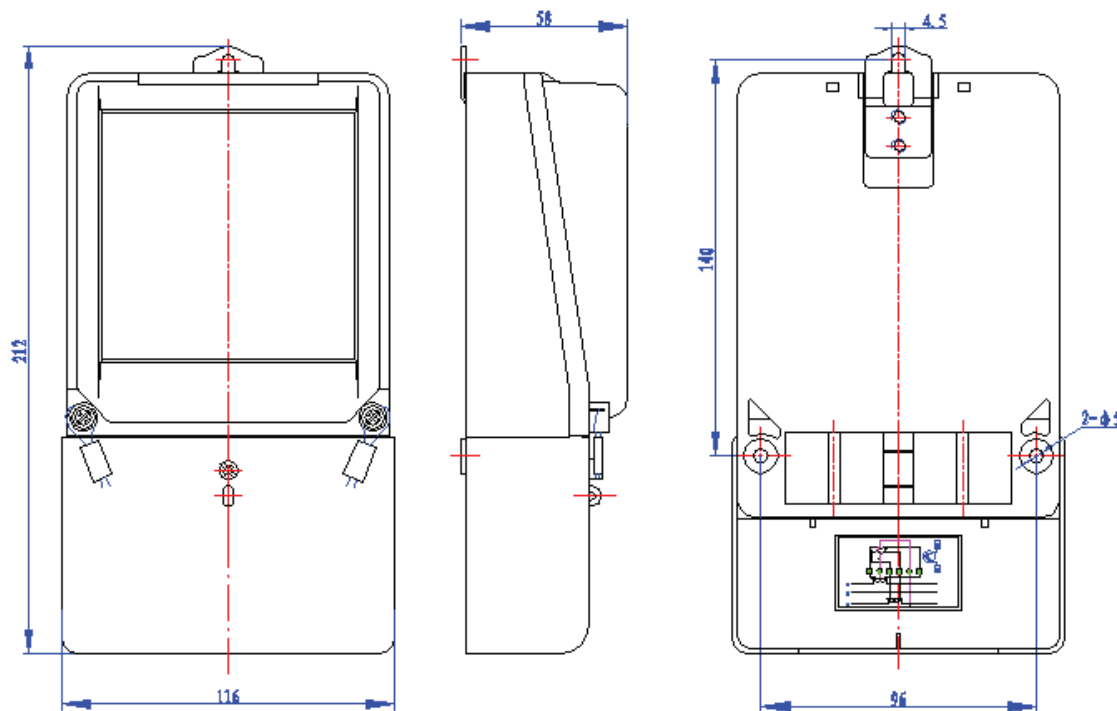


Fig1 The outline and installation size of DDS28 meter