INSTRUCTIONS

SINGLE PHASE FOUR MODULAR DIN RAIL ELECTRONIC METER WITH RS485

Ⅰ. Standard

The functions of the product meet all the technical requirements of single phase electronic meter in IEC 62052-11, EN50470-1/3 standard (static AC active power meter). The meter is intended to be installed in a Mechanical Environment 'M1', with Shock and Vibrations of low significance, as per 2004/22/EC Directive and should be installed in Electromagnetic Environment 'E2', as per 2004/22/EC Directive.

Ⅱ. Functions and characteristics

1. Active electricity measuring, without adjustment under long-term functioning.
2. With RS485 communication, index in accordance with Modbus RTU, which focuses on convenient intelligent management conveniently (If without 485, there is no such function).
3. Wide work temperature range: -25—+55°C

Ⅲ.Technical specifications

1. Rated voltage: 230V
2. Rated current: 0,25-5(80)A
3. Rated frequency: 50Hz
4. Display mode：LCD 5+2= 99999.99kWh
5. Impulse constant: 1600imp/kWh
6. Class of Accuracy: B
7. Start current: 0.4%Ib (class 1.0)
8. Creep: logical design of Anti-creep
9. Power consumption: ≤1W（when 220V 20A）

Accuracy (see the form bellow)

Load current	Power factor COSΦ	Basic error%		
		Class 0.5	Class 1	Class 2
0.05Ib	1.0	±1.0	±1.5	±2.5
0.1Ib~Imax	1.0	±0.5	±1.0	±2.0
0.1Ib	0.5(L)	±1.0	±1.5	±2.5
	0.8(C)	±1.0	±1.5	—
0.2Ib~Imax	0.5(L)	±0.5	±1.0	±2.0
	0.8(C)	±0.5	±1.0	—

10. Invironment condition: standard work temperature -20—45°C
    limit work temperature -30—55°C
    relative humidity ≤85%
11. Outside dimensions: 115×78×65mm

Ⅳ. Working principle

See Fig.1.send simulate signal of sampling current and sampling voltage separately to special integrated circuit, after inner amortize and magnify to multiplicative part. And voltage signal multiply with current signal, through A/D transition to transfer simulate value to figure signal. Then, through frequency divide circuit and drive circuit to use the impulse output of electricity signal in drive impulse circuit and electricity indication.

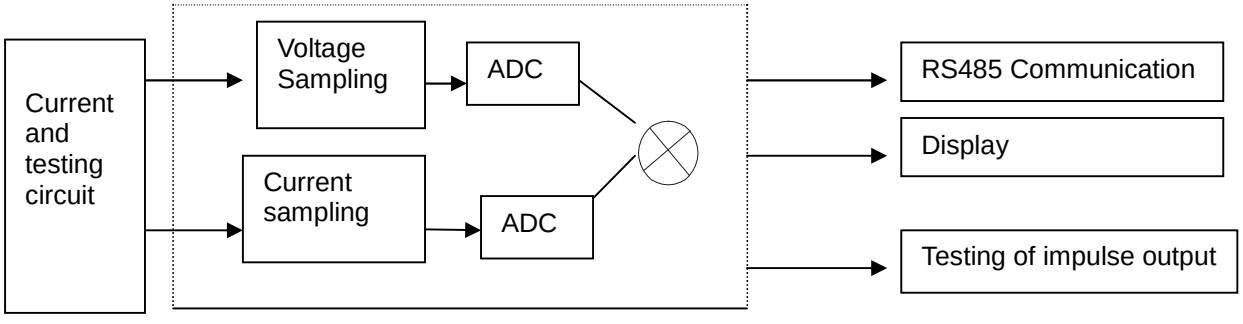


Fig.1

V. Installation

1. The meter is tested and sealed before leaving the factory.
2. The meter should be installed in a meter enclosure whether indoors or outdoors. The meter should be installed on a solid and fire-resistant backing, and not near any combustible, corrosive or noxious substances or gases.
3. The meter should be connected in according to the wiring diagram on meter case. Copper wiring is preferred.
4. The LCD displays shows the electricity consumption with units of kWh (kilowatt hours).
5. The meter is intended for Indoor use
6. There is no maintenance, repair or adjustment intended on the meter and there are no serviceable parts
7. Meter case dimensions

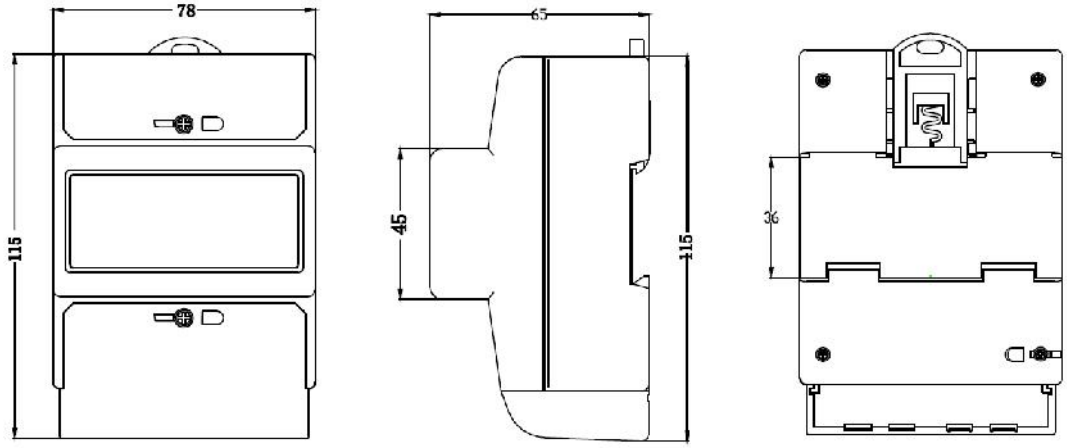
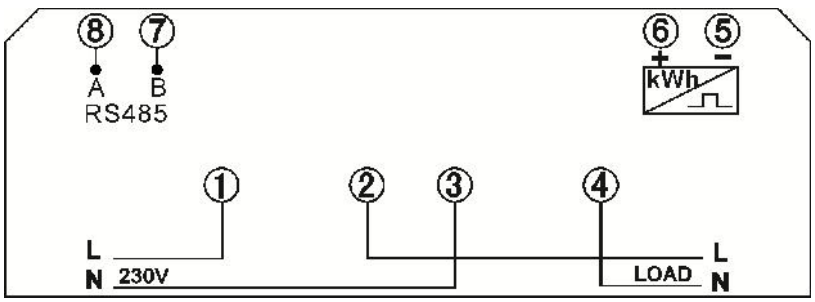


Fig. 2

8. Meter wiring diagram



VI. Transportation and handling

1. The meter shall not be subjected to throwing, dropping, kicking or other physical abuse, as there are high precision components inside that will break or make the meter measure in accurately. The process of transportation, handling and installation should be according to transportation and storage rule of GB/T15464-1995.
2. Keep the meter in the original package when stored. The storage temperature range should be 0—40°C. relative humidity ≤85%. There should be no toxic or corrosive substance or gases in the air.
3. The meters shall be stacked on the platform in storage. Don’t stack more than 10 units high.