DDM100TCR USER MANUAL

1. General

DDM100TCR three phase four wire din rail energy meter with RS485/MODBUS communication is a kind of new type of meter.our company adopt micro-electronic technique and imported special large scale integrate circuit,use advanced technique of digital sampling technique and SMT technical ect. The meter are completely conformed to international standard IEC62053-21 on the meter(class 1.0)

The meter is used for measuring active energy power consumption in a rated frequency of 50HZ or 60 HZ three phase alternating current circuit .The meter adopt (5+2) digital LCD display.It has following features: good reliability,small voltage ,light weight,specious nice appearance,Convenient installation ect.Widely used and coordination of sets of equipment is convenient.

The meter is installed indoors.the site conditions shall be assumed as follows: the ambient temperature is 5℃-55℃,relative humidity is not more than 95%.There isn't heavy corrosive gas or any influence of dust,mold and insects ect.

2. Function and characteristics:

2.1 35mm standard DIN rail installation,complying with standard DIN EN50022.Or front board installed (mounting holes center distance 63 mm), users can choose any one by themselves

2.2 Seven digital LCD display.standard 5+2digital(99999.99kWh) display. optional 6+1 digital display

2.3 Standard configuration one port of pulse output passive (polarity),may select increase a distant port of pulse output passive (non-polarity),complying with standard IEC62053-31 and DIN 43864.

2.4 LED indicates respectively power-supply,impulse,and Communication, Reverse ect.

2.5 Automatically detect the direction of the trend of load current. If the LED "REV" lights that means the load current is reverse

2.6 RS485 output interface (optional) enable remote data transfer,remote control reading and parameter setting.Adopt DL/T645-1997 communication protocol.

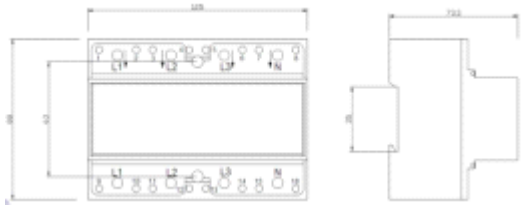
2.7 Direct connect operation,optional through CT

2.8 Standard configuration short terminal cover, which is helpful to reduce installation space and make it convenient to install

3. Parameters and specification:

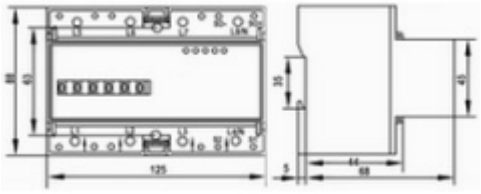
Accuracy	Class 1.0
Rated voltage(VAC)	3x220/380,3x230/400,3x240/415.
Operation voltage range	Un±20%
Insulation capabilities	AC Voltage withstand 2kv for 1 minute,impulse voltage withstand 6kv-1.2/50μs waveform
Rated current (A)	1.5(6),5(30),10(60),20(80),30(100) ect.
Operation current range	0.05Ib~Imax
Starting current	0.004Ib
Rated frequency	50Hz or 60Hz
Internal power consumption	Voltage circuit ≤1.0W 5VA; Current circuit ≤1 VA(Ib)
Impulse valence Ra	0.5 or 1.0 Wh/imp
Interface	optical coupler (SO corresponding to DIN 43864)
RS485 Communication	Baud rate: 1200bp(detail)
Remote pulse output	Pulse width: 80ms +20ms
Temperature range	Normal operation temperature : -10℃～+45℃, Extreme operation temperature : -40℃～+75℃ Storage temperature : -25℃～+70℃.
Relative humidity	≤ 85%
Service life	More than 10 years
Dimension	125mm x 88mm x 73mm
Weight	Approx 850g

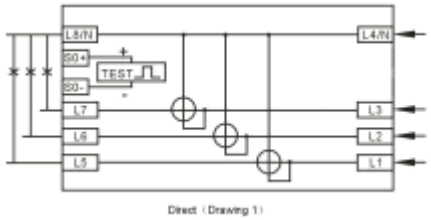
4. Installation dimensions and Outside dimension:



5. Pulse output connection diagram

It is direct connection,L1 L2 L3 in, L4/N and L8/N out (L1-L6 Phase line, L4/N-L8/N Null line) No power pulse output terminal: SO-(-) SO+(+) which can check meter pulse and power pulse. RS485 Communication port: S2(A) S1(B) **COM**. is RS485 Communications instructions. L1 L2 L3 is Phase instructions. REV. is Reverse instructions. Is pulse instruction





Direct (Drawing 1)

6.Installation and Using

6.1 The meter is tested as qualified for delivery with the lead sealing marked on it before the installation,but if meter without lead sealing and long time storage, the meter should checked once again by power department to ensure the measure precision before installation.

6.2 The meter should be installed indoor,in dry and ventilated place where the wall is firm,about 1.8m high and without stake or installed in special meter box. Using temperature : -10℃ ～ +45℃, relative humidity not more than 85%, without erode gas in the air.

6.3 Connection must be made in accordance with the drawing in this manual or the Drawing on the meter.

6.4 Using voltage must be meet reference value,using current cannot exceed the maximum current. it will cause Measuring inaccurate or damaged.

7.Transportation Storage:

7.1 The meter shouldn't be struck violently when it is being transport, opening Packing

7.2 The meter should storage in original packaging,Storage areas shall be clean,storage Temperature should be -25℃~+70℃. Relative humidity should be less than 85%.and without corrosive gas.

7.3 The meter is Precision electronic instrument.If the meter have some obviously rift in Being transportation or using,please don't connect with power and contact with our Company.

8. Guarantee time limit

Within 12 months since the delivery date,it is found that the product doesn't conform to the standards,it will be repaired or replaced free that the customers operate it according to the instruction manual and the seal is intact.