General Specifications

Voltage AC (Un)	230V
Voltage Range	176~276V AC
Base Current (Ib)	10A
Max. Current (Imax)	80A
Mini Current (Imin)	0.5A
Starting current	0.4% of Ib
Power consumption	<2W/10VA
Frequency	50Hz(±10%)
AC voltage withstand	4KV for 1 minute

Impulse voltage withstand	6KV-1.2uS wavform
Overcurrent withstand	30Imax for 0.01s
Pulse output rate	1000imp/kWh (default)
Display	LCD with backlit

Accuracy

Active energy	Class 1 IEC62053-21 Class B EN50470-1/3

Environment

Operating temperature	-25℃ to +55℃
Storage and transportation temperature	-40℃ to +70℃
Reference temperature	23℃±2℃
Relative humidity	0 to 95%, non-condensing
Altitude	up to 2500m
Warm up time	10s
Installation category	CAT III
Mechanical Environment	M1
Electromagnetic environment	E2
Degree of pollution	2
IP level	IP51 (Indoor, the meter is to be installed in Cabinet higher than IP51)

Output

Pulse Output

The meter provides one pulse output.

It is fixed up with total kwh. The constant is 1000imp/kWh.

RS485 output for Modbus RTU

The meter provides a RS485 port for remote communication. Modbus RTU is the protocol applied. For Modbus RTU, the following RS485 communication parameters can be configured from the Set-up menu.

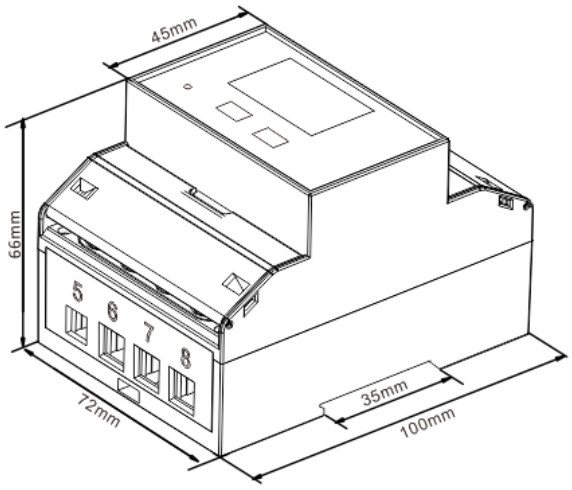
Baud rate: 9600

Parity: NONE

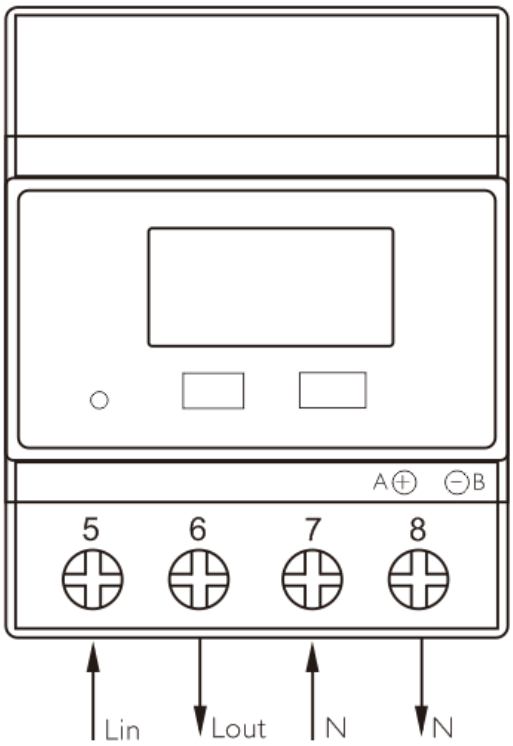
Stop bits: 1

Modbus Address: 1

Dimensions:



Wiring Diagram



Information for Your Own Safety

This manual does not contain all of the safety measures operating the equipment (module, device) for different conditions and requirements. However, it does contain information which you must know for your own safety and to avoid damages. This information is highlighted by a warning triangle indicating the degree of potential danger.

Warning

It means that failure to follow the instruction can result in death, serious injury or considerable material damage.

Caution

It means hazard of electric shock and failure to take the necessary safety precautions will result in death, serious injury or considerable material damage.

Qualified personnel

Operation of the equipment (module, device) described in this manual may only be performed by qualified personnel. Qualified personnel in this manual means person who are authorized to commission, start up, ground and label devices, systems and circuits according to safety and Regulatory standards.

Proper handling

The prerequisites for perfect, reliable operation of the product are proper transport, proper storage, installation and proper operation and maintenance. When operating electrical equipment, parts of this equipment automatically carry dangerous voltages. Improper handling can therefore result in serious injuries or material damage.

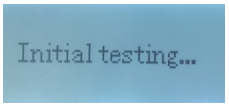
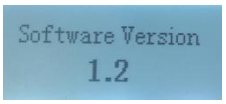
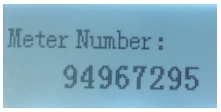
- ✧ Use only insulating tools.
- ✧ Do not connect while circuit is live (hot).
- ✧ Do not connect the meter to a 3 phase - 400VAC – network.
- ✧ Place the meter only in dry surroundings.
- ✧ Do not mount the meter in an explosive area or expose the meter to dust, mildew and insects.
- ✧ Make sure the wires are suitable for the maximum current of this meter.
- ✧ Make sure the AC wires are connected correctly before activating the current/voltage to the meter.
- ✧ Do not touch the meter connecting clamps directly with metal, blank wire and your bare hands as you may get electrical shock.
- ✧ Make sure the protection cover is placed after installation.
- ✧ Installation, maintenance and reparation should only be done by qualified personnel.
- ✧ Never break the seals and open the front cover as this might influence the function of the

meter, and will cause no warranty.

✧ Do not drop, or allow strong physical impact on the meter as the high precisely components inside may be damaged.

Operation instruction

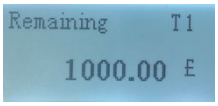
1. Start up screen:

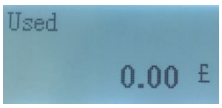
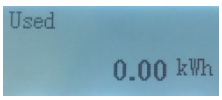
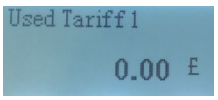
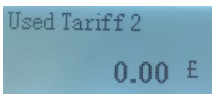
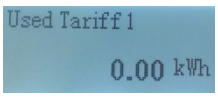
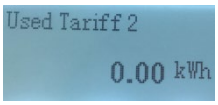
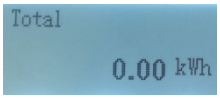
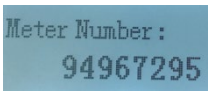
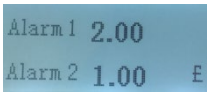
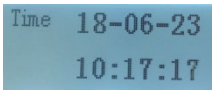
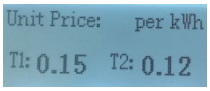
1		The first screen lights up all display segments and can be used as a display check
2		The second screen indicates the software version.
3		Software version
4		Meter Serial Number

After 5 seconds delay, the screen will display active energy measurements.

The buttons operate as follows:

1		>Scroll the display for data checking. >Changing option at Set-up mode >Exit the Set-up mode
2		>Set-up mode entry >Confirmation

Page	Display	Descriptions
1		Remaining credit 1000£ T1 is working

2		Used value 0.00 £
3		Used kWh 0.00 kWh
4		Used value on Tariff 1
5		Used value on Tariff 2
6		Used kWh on Tariff 1
7		Used kWh on Tariff 2
8		Accumulated used kWh
9		Meter serial number
10		Two Alarm levels Alarm level 1 is 2 £; Alarm level 2 is 1 £
11		Date and time
12		Unit price per kWh

Declaration of Conformity

We Zhejiang Eastron Electronic Co., Ltd. Declare under our sole responsibility as the manufacturer that the single phase prepay energy meter SDM320Y-RF correspond to the

production model described in the EU-type examination
certificates and to the requirements of the Directive 2014/32/EU EU type examination certificate number 0120/SGS0391. Identification number of the Notified Body is NB0120.