GROWATT



Single-phase Meter User Manual

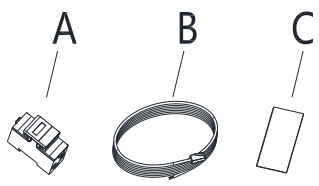
Step1 Overview

DDSU666 Single-phase electronic type guide rail mounting electric energy meter is designed for power monitoring and energy metering demand of the electric power system, communication industry, and construction industry.It is a new generation of intelligent instruments integrated Communication and Measurement, mainly used as measurement and display of voltage and current, power, frequency, power factor and active power in electrical circuit. It will realize the data network of external devices by RS485 communication. It uses standard DIN35mm rail mounting structure, modular design. It has the advantages of small size, easy installation and easy networking .It is used widely as energy monitoring and assessment in industrial and mining enterprises, hotels, schools, and large public buildings.

Step2 Technical Parameters

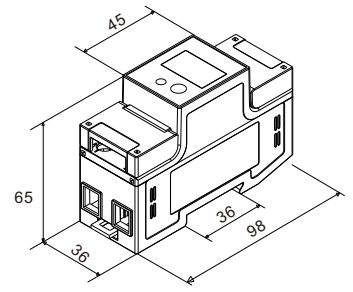
General Specifications	
Voltage	230Vac
Specified operating voltage range	0.9Un ~ 1.1Un
Extended operating voltage range	0.8Un ~ 1.15Un
Base current(Ib)	5A
Current range	5 ~ 80A
Voltage line power consumption	≤1W/8VA
Frequency	50 Hz ~ 60Hz
AC voltage withstand	2KV /5mA for 1 minute
Impulse voltage withstand	4KV-1.2/50uS wavform
Max. Reading	999999. 99kWh
Accuracy	
Voltage	1% of range maximum
Current	1% of nominal
Frequency	1% of mid-frequency
Power factor	1% of Unity
Active power	1% of range maximum
Reactive power	2% of range maximum
Enviroment	
Rated temperature	-25℃ ~ +55℃
Limit temperature	-35℃ ~ +70℃
Relative humidity(average annual)	≤75%
Atmosphere	86kPa ~ 106kPa
Installation category	CAT III
Degree of pollution	Conform to RoHS
Communication	
Communication	RS485 output for Modbus RTU
Baud rate	9600
Mechanics	
Din rail dimensions	36x98x65(WxHxD)
Mounting	DIN rail 35mm
Sealing	IP 51 (indoor)

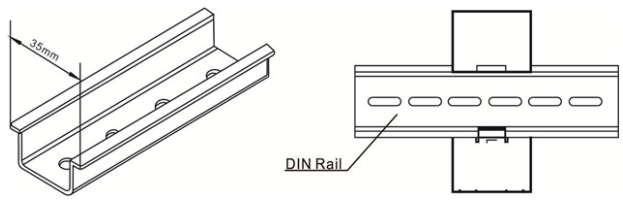
Step3 Unpacking



Item	Number	Description
A	1	Single phase meter
B	1	RS485 cable (standard length 15m)
C	1	User Manual

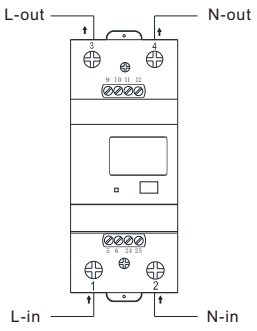
Step4 Dimension(unit:mm)



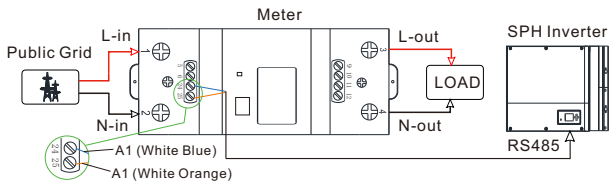


Step5 Installation

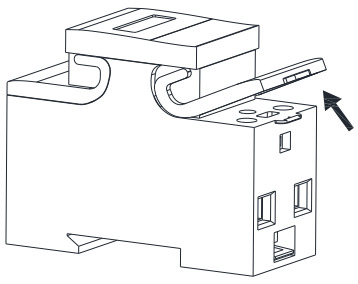
Wire diagram:



The Ingress Protection rate is IP51, So meter must be installed in door. The whole installation chart shows as below:



Before screw the cable. Please open the cover of meter:

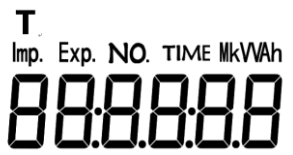


The standard communication cable between meter and inverter is 15m, if it is not enough, Customers can be extended through the network cable.

Note:
1.Be careful the wire of input and output of L/N and the range of input voltage or current, if the data is outrange, it may destroy the meter.
2.Be careful the input and output of meter line, if lines are wrong, system will work in a wrong way.

Step6 Display

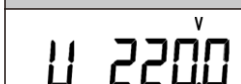
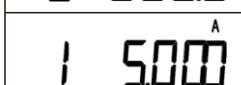
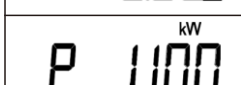
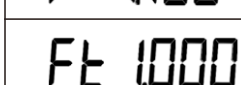
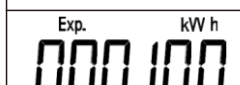
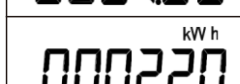
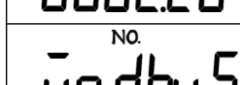
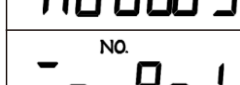
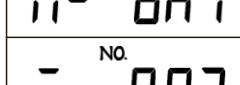
When the energy meter is in normal working condition (on load state), the positive pulse indicator should be flashed. If long time for no flashing or light for the indicator, please check whether the wiring mode of the energy meter is right or not.



Symbol	Meaning
V	The unit of the voltage, the display data of indicating LCD is voltage
A	The unit of the current, the display data of indicating LCD is current
W	The unit of the active power, the display data of indicating LCD is active power
var	The unit of the reactive power, the display data of indicating LCD is reactive power
Hz	The unit of the frequency, the display data of indicating LCD is frequency
kWh	The unit of the active energy, the display data of indicating LCD is active energy
T	When communicating, T flashes

The display time of the measurement data is five seconds and information sample for every page of the measured information of measurement data (if not consistent with the instrument panel, please take the object as standard.)

Light time of the background:1 min.

Content	Instruction
	Means the current display voltage is U, the unit is "V",the left picture is U=220.0V.
	Means the current display current is I, the unit is "A", the left picture is I=5.000A.
	Means the current display is the active power P,the unit is "kW",the left picture is P=1.100kW.
	Means the current display is the power factor Ft,the left picture is Ft=1.000.
	Means the current display is frequency F, the left picture is F=50.00Hz.
	Means the current positive active energy EImp, the unit is "kWh", the left picture is EImp=1.20kWh.
	Means the current negative active energy EExp, the unit is "kWh", the left picture is EExp=1.00kWh.
	Means the current combination active energy total ComEp, the unit is "kWh", the left picture is ComEp=2.20kWh.
	Means the current communication protocol is Modbus.
	Represents 8 data bits, no effect bit and one stop bit of the current communication protocol.
	Means the current communication address is 003.
	Means the current communication baud rate is 9600.

Note: This meter and SPH default communication address is 03, the baud rate is 9600, if the meter and SPH communication is not on, you can confirm the communication address and baud rate is accurate.

Step7 Service and contact

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