



WE MEASURE ELECTRICITY

PRODUCT CATALOG



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What’s MID?

The Measuring Instruments Directive (2014/32/EU) is a directive by the European Union, which seeks to harmonise many aspects of legal metrology across all member states of the EU. Its most prominent tenet is that all kinds of meters which receive a MID approval may be used in all countries across the EU.

Conditions of application

In the European Union, the use of MID-certificated meters on “Private” electrical networks has been mandatory in the context of active energy billing based on consumption reading by index differences. Typical examples includes: camping sites ,holiday rentals, student accommodations, office buildings, shopping centers, marinas, exhibition halls, electric vehicle recharging station, etc.

As the MID is applicable to all European Union Member States, certification of ammeter by a Notified Body(NB) means that no other testing by a national legal metrological service is required. So a MID certificated Eastron meter can be used as an active energy billing meter in all European Union countries.

The Directive also imposes product certification according to the EN50470-1/-3 standards, as well as design certification (Module B) and manufacturing process certification(Module D) by a Notified Body. In order to ensure product traceability and guarantee its metrological value, thus to protect consumers.

Certificates MID B +D we have:



Which products of us are MID approved by SGS.

Till present, Eastron has the MID approved models cover these items:

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SDM630 Ethernet Modbus-TCP

SDM630MCT-ML-TCP : THREE-PHASE CT CONNECT TYPE (DIN)



- Ethernet Communication with Modbus-TCP protocol
- single/double/triple/qual 3-phase loads
- 100mA/100mV CT connect type
- Multi-parameters Measurement
- Easy Click Installation, Error free, Labor-saving
- High Accuracy (Class 0.5S IEC62053-22)

SDM630-TCP : THREE-PHASE 100A DIRECT CONNECT TYPE (DIN)



- Ethernet Communication with Modbus-TCP protocol
- Support 1P2W, 2P3W,3P3W,3P4W grid
- 100A direct connect type
- Multi-parameters Measurement
- Bi-directional measurement
- High Accuracy (Class 1 IEC62053-21)

EV CHARGER & SOLAR INVERTER METER



- SDM120M**
- 1 Module 18 mm wide
 - 45A direct load
 - Multi-measurement
 - Bi-directional measurement
 - 2 Pulse output (configurable)
 - Modbus RTU (DLT 645 option)
 - MID B+D



- SDM230Modbus**
- 2 Module 36 mm wide
 - 100A direct load
 - Multi-measurement
 - Bi-directional measurement
 - 2 Pulse output (configurable)
 - Modbus RTU (DLT 645 option)
 - MID B+D
 - ETL listed



- SDM54M**
- 3 Module 54 mm wide
 - 45A direct load
 - Multi-measurement
 - Bi-directional measurement
 - 2 Pulse output (configurable)
 - Modbus RTU (DLT 645 option)
 - MID B+D

SDM120 SERIES

> Single Phase



Model	Specifications	Description	Output
SDM 120A	 230V,0.25~5(45)A, Analogue	Active Energy(kWh)	Pulse output
SDM 120D/DB	 230V / 110V,0.25~5(45)A	Active Energy(kWh)	Pulse output
SDM 120P	 230V / 110V,0.25~5(45)A	Multi-parameters, Imp & Exp	2 Pulse output
SDM 120M	 230V / 110V,0.25~5(45)A	Multi-parameters, Imp & Exp	RS485 Modbus + 2 Pulse Output
SDM 120MB	 230V / 110V,0.25~5(45)A	Multi-parameters, Imp & Exp	Mbus + 2 Pulse Output
SDM 120CTM	 230V / 110V,0.25~5(6)A	Multi-parameters, Imp & Exp	RS485 Modbus + 2 Pulse Output
SDM 120CTP	 230V / 110V,0.25~5(6)A	Multi-parameters, Imp & Exp	2 Pulse output
SDM 120CT-MB	 230V / 110V,0.25~5(6)A	Multi-parameters, Imp & Exp	Mbus + 2 Pulse Output
SDM 120CT-MV	230V / 110V,100mV CT, 40mA	Multi-parameters, Imp & Exp	RS485 Modbus + 2 Pulse Output

SDM18 SERIES

> Single Phase



Model	Specifications	Description	Output
SDM18M	230V, 0.5~10(100)A	Multi-parameters, Imp&Exp	RS485 Modbus
SDM18MB	230V, 0.5~10(100)A	Multi-parameters, Imp&Exp	Mbus
SDM18MT	230V, 0.5~10(10		

SDM630MCT-ML Series

> Multi-circuits



Model	Specifications	Description	Output
SDM630MCT-1L	3x230/400V, 100mA or 100mV CT	Multi-parameters, Imp&Exp, Single Load	RS485 Modbus
SDM630MCT-2L	3x230/400V, 100mA or 100mV CT	Multi-parameters, Imp&Exp, Dual Load	RS485 Modbus
SDM630MCT-3L	3x230/400V, 100mA or 100mV CT	Multi-parameters, Imp&Exp, Tri-Load	RS485 Modbus
SDM630MCT-4L	3x230/400V, 100mA or 100mV CT	Multi-parameters, Imp&Exp, Quad Load	RS485 Modbus
SDM630MCT-ML-TCP	3x230/400V, 100mA or 100mV CT	Multi-parameters, Imp&Exp, Quad Load	Modbus TCP

SDM54 SERIES

> Three Phase



Model	Specifications	Description	Output
SDM54M	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp	RS485 Modbus + 2 Pulse output
SDM54MB	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp	Mbus + 2 Pulse output
SDM54-2T	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp, 2 Tariffs(Dual Power Source)	RS485 Modbus + 2 Pulse output

SDM530 SERIES

> Single Phase



Model	Specifications	Description	Output
SDM530D	3X230(400)V,0.5~10(100)A	Active Energy(kWh)	Pulse output
SDM530D-2T	3X230(400)V,0.5~10(100)A	Active Energy(kWh),2 tariff (Dual Power Source)	Pulse output
SDM530-Mod			

SMART Connect X835 SERIES

> Three Phase



Model	Specifications	Description	Output
Smart Connect X835 CT	3x230/400V, 1A or 5A	Multi-parameters, Class 1.0 / 0.5s , 63rd THD	RS485 Modbus+2Pulse output
Smart Connect X835 MV	3x230/400V, 333mV CT	Multi-parameters, Class 1.0 / 0.5s , 63rd THD	RS485 Modbus+2Pulse output

SMART X72 SERIES

> Three Phase



Model	Specifications	Description	Output
Smart X72-F	3x230/400V, 1A or 5A 3P4W, 3P3W, 2P3W, 1P2W	85 electric parameters measured; CT & PT programmable; Class 1.0/0.5s/0.2s; 2~63rd THD; Aux. power supply;	RS485 Modbus
Smart X72-G	Same as Model "F"	Model "F" + 4DI and 2DO	RS485 Modbus+DI/DO

RS485-ETHERNET SERIES

> Ethernet Gateway



Model	Input	Output	Power supply
ESP-2100	RS232/RS485/RS422 x1; 600bps~460800bps	Ethernet TCP	5~36V DC
ESP-2200	RS232/RS485/RS422 x1; 2400bps~230400bps	Ethernet TCP	5~36V DC
ESP-2400	RS232/RS485/RS422 x1; 1200bps~4608		

ESP-RJ-3 SERIES

> RJ12



Model	Primary Current	Secondary Output	Accuracy
ESCT-RJ10-3	5,10,20,50,75A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ16-3	10,50,100,150A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ24-3	10,50,100,250,300A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ36-3	20,100,250,400,600A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ325	60,100,120,125,150,160,200A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ335	63,125,150,200,250A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ345	250,300,400,500,600,630A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ370	600,630,800,1200A	100mA/100mV/333mV	0.5 / 1

ESP-P SERIES

> PUNCTURE



Model	Primary Current	Secondary Output	Accuracy
ESCT-P16T	5,63,100,160,250A	100mA/100mV/333mV	0.5 / 1
ESCT-P24T	100,200,250,300,400A	100mA/100mV/333mV	0



SDM120 Modbus / Mbus/Pulse

SINGLE PHASE MULTI-FUNCTION ENERGY METER

- 45A direct load
- 1 Module 17.5mm wide
- Multi-measurement: kWh,W, V, A, PF, Hz, dmd.etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication



Introduction

SDM120-45A series are advanced single phase energy monitoring solution with built-in configuration push button and LCD data displaying, particularly indicated for energy and other parameters metering and for cost allocation. Housing for DIN-rail mounting, IP51 protection degree, direct connection up to Max.45A. Moreover, the meter provides pulse outputs proportional to the active energy being measured and a RS485 output/ M-bus output port for remote monitoring. It is an ideal choice as a sub-meter for AMR system or SCADA system.

This series has been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The EU Type Examination Certificate Number is 0120/SGS0141.



SDM120 —M—1—1

- P: Multi-parameters, 2 Pulse outputs
- M: Multi-parameters, 2 Pulse outputs + RS485 Modbus RTU
- MB: Multi-parameters, 2 Pulse outputs + M-bus
- 1: 110V/120V AC
- 2: 220V/230V AC
- 1: MID
- 2: Non-MID

Specification	
Nominal voltage(Un)	120V or 230V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for



SDM120CT Modbus / Mbus / Pulse

SINGLE PHASE MULTI-FUNCTION ENERGY METER

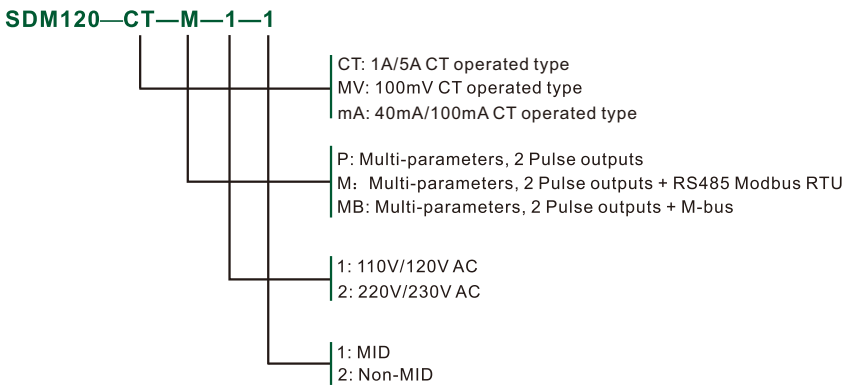
- CT operated
- 1 Module 17.5mm wide
- Multi-measurement: kWh,W,V,A,PF,HZ,dmd. etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication



Introduction

SDM120 CT series is CT operated type single phase multi-function energy meter. The meter is compactly designed in one module din rail enclosure. LCD display is provided to show the energy and other important electric parameters measured. Moreover, the meter can provide pulse outputs proportional to the energy being measured and a RS485 output/ M-bus output port for remote monitoring. CT ratio can be set, which enables this meter to measure big current loads.

This series has been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The EU Type Examination Certificate Number is 0120/SGS0141.



Specification	
Nominal voltage(Un)	120V or 230V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	



SDM18 Modbus/Mbus

SINGLE PHASE MULTI-FUNCTION ENERGY METER

- 100A direct load
- 1 module 18mm wide
- Multi-Measurement: kWh,W, V, A, PF, Hz, dmd.etc.
- Bi-directional measurement
- RS485 Modbus or M-bus communication

Introduction

SDM18-100A Series are advanced single phase energy monitoring solution with built-in configuration push button and LCD display, particularly indicated for energy and other parameters metering and for cost allocaation. The unit is designed with Din-rail mounting, IP51 protection degree. It support direct connection up to Max. 100A. Moreover, it is equipped with 1 RS485 Modbus/ Mbus output for remote monitoring, which makes it an ideal choice as a sub-meter for AMR system and SCADA system.

Specification	
Nominal voltage(Un)	120V or 230V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Basic current (Ib)	10A
Maximum rated current (Imax)	100A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50 / 60Hz
Internal power consumption	≤ 2W/10VA
Pulse LED	1000imp/kWh
Display	LCD with backlight
Max reading	99999.9 kWh/kVArh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤



SDM220 Modbus / Mbus / MT

SINGLE PHASE MULTI-FUNCTION ENERGY METER

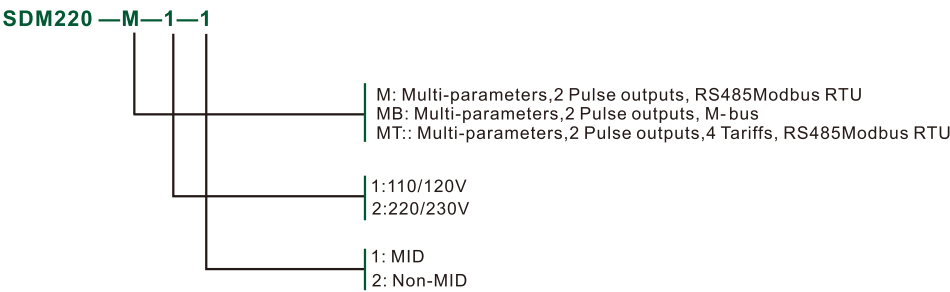
- 100A direct load
- 2 Module 36mm wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,HZ,dmd,V,A,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- Multi-tariffs available (RTC)



Introduction

SDM220 series is an advanced digital single phase multi-function energy meter, which measures up to 100A direct load.The unit measures active energy, reactive energy, current, voltage, power, power factor, frequency, demand, etc. Bi-directional measurement makes this unit an ideal choice for Solar PV measurement. A remote communication port is provided, RS485 Modbus RTU/M-bus EN13757-3 and Communication parameters are password protected in setup mode. Users can check data and set up the meter via the buttons on the front panel.

This Series has been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The EU Type Examination Certificate Number is 0120/SGS0172.



Specification	
Nominal voltage(Un)	230V ac
Operational voltage	80%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.



SDM 230 Modbus / DI / Mbus / 2T / Std / Pulse

SINGLE PHASE MULTI-FUNCTION ENERGY METER

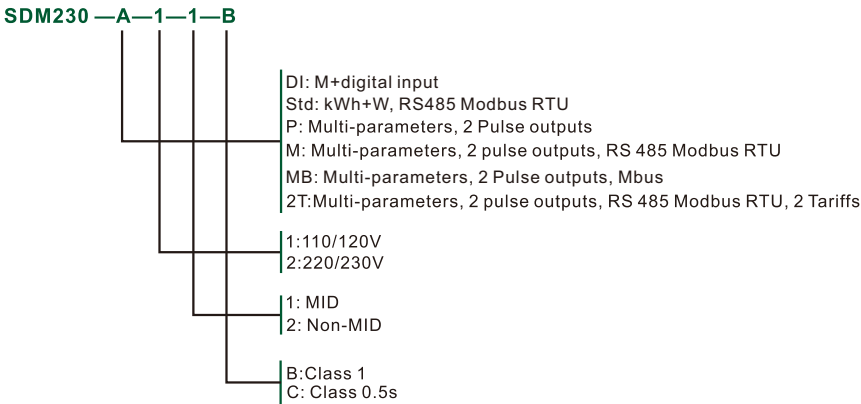
- 100A direct load
- 2 Module 36mm wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,HZ,dmd,V,A,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- 2 Tariffs available(dual power source)
- Digital input



Introduction

SDM230 series is an advanced digital single phase multi-function energy meter, which measures up to 100A direct load. The unit measures active energy, reactive energy, current, voltage, power, power factor, frequency, demand, etc. Bi-directional measurement makes this unit an ideal choice for Solar PV measurement. A remote communication port is provided, RS485 Modbus RTU or M-bus EN13757-3 and communication parameters are password protected in setup mode. Users can check data and set up the meter via the buttons on the front panel. SDM230-2T can measure energy from two different power supplies.

This Series has been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The EU Type Examination Certificate Number is 0120/SGS0206.





SDM530 Modbus / Mbus / MT / DO

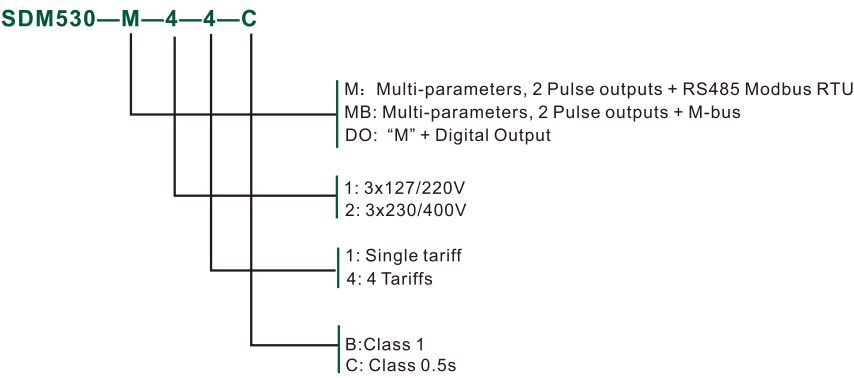
THREE PHASE FOUR WIRE MULTI-FUNCTION ENERGY METER

- 100A direct load
- 7 Module wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,HZ,dmd,V,A,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- Multi-tariffs available(RTC)
- Digital input

Introduction

The SDM530 100A series measure and display the characteristics of three phase four wires(3p4w) supplies, including voltage, frequency, current, power, active and reactive energy, imported or exported. Energy is measured in terms of kWh, kVarh. Maximum demand current can be measured over preset periods of up to 60 minutes. In order to measure energy, the unit requires voltage and current inputs to power the product.

SDM530 100A series support max.100A direct connection, save the cost and avoid the trouble to connect external CTs, giving the unit a cost-effective and easy operation. Built-in interfaces provide pulse and RS485 Modbus RTU outputs/ Mbus Port. All the configurations are password protected.





SDM530CT Modbus / Mbus / MT / DO
THREE PHASE FOUR WIRE MULTI-FUNCTION ENERGY METER

- 5A CT operated
- 7 Module wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,HZ,dmd,V,A,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- Multi-tariffs available(RTC)
- Digital input

Introduction

The SDM530 CT series measure and display the characteristics of three phase four wires(3p4w) supplies, including voltage, frequency, current, power, active and reactive energy, imported or exported. Energy is measured in terms of kWh, kVArh. Maximum demand current can be measured over preset periods of up to 60 minutes. In order to measure energy,the unit requires voltage and current inputs to power the product.

SDM530CT series can be configured to work with a wide range of CTs, giving the unit a wide range of operation. Built-in interfaces provides pulse and RS485 Modbus or Mbus. Configuration is password protected.



SDM530CT—M—4—4—C

- M: Multi-parameters, 2 Pulse outputs + RS485 Modbus RTU
- MB: Multi-parameters, 2 Pulse outputs + M-bus
- DO: "M" + Digital Output
- 1: 3x127/220V
- 2: 3x230/400V
- 1: Single tariff
- 4: 4

Remote Control and Prepaid Solution

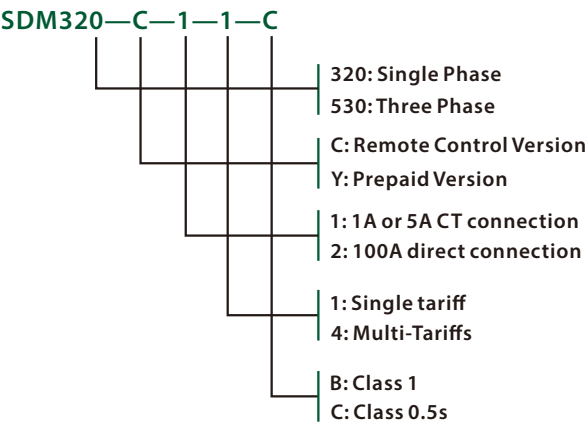


Introduction

SDM320/SDM530C Series is Eastron's new generation of single phase multi-function remote control energy meter. It measures all important electrical parameters, such as Active Energy (kWh), Current (A), Voltage (V), Frequency(Hz), Power Factor, Power Demand, import and export energy etc. It fully complies with the 0.5S level accuracy technical requirements of the IEC62053-22 standard for energy meters. With built-in relay inside, the meter can be remotely controlled to turn on or off the electricity supply via RS485. The user can also set alarm objects and alarm level, once the alarm is activated the relay will be turned off automatically. SDM320/SDM530Y Series is single/ three phase prepaid energy meters. It has a complete prepaid management system. The system automatically deducts fees based on electricity usage. The recharge operation can be done remotely without any media, such as an IC card. The meter has a two-level balance alarm function and an emergency amount function. When there is credit occurs, it will automatically stop the power supply and monitoring.

Features:

- Multi-parameter: kWh kVarh, kW, PF,HZ, V, A etc.
- LCD display with backlit
- Built-in relay for remote control
- Alarm System
- RS485 Modbus Communication
- Max. 100A direct connection
- Multi-tariff (RTC) available
- Accuracy Class 0.5S





SDM630 Modbus / Mbus / MT / TCP / WiFi/2T

THREE PHASE MULTI-FUNCTION ENERGY METER

- 100A direct load
- Work with 3P4W / 3P3W / 1P2W
- 4 Module 72mm wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,HZ,dmd,V,A,THD,etc.
- RS485 Modbus Modbus/Modbus TCP or M-bus communication
- 2 Pulse outputs
- Multi-tariffs available(RTC)
- Bi-directional measurement
- 2 Tariffs available(dual power source)



Introduction

The SDM630 100A series are three phase multifunction DIN rail meters.They can measure and display the characteristics of 1p2w,3p3w and 3p4w supplies, including voltage, current, power, active and reactive energy imported or exported. Energy is measured in terms of kWh, kVarh. Max demand current can be measured over preset periods of up to 60 minutes. The SDM630 100A series have wonderful industrial design, big size LCD and touch buttons. All electronic parameters can be set with the button and the configuration is password protected. It can directly connect to Max. 100A, saving the cost to install external CT. Built-in interfaces provides pulse and RS485 Modbus RTU outputs.

SDM630 Series have been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The instrument traceable number is 0120/SGS0151.





SDM630MCT-ML 4L/3L/2L
THREE PHASE MULTI-LOAD ENERGY METER

- 4 module 72mm wide
- Plug-in connection
- RJ12 100mA/100mV current input
- Independently programmable CT ratio (Load 1,2,3,4)
- Multi-parameters measured
- RS485 RTU Modbus communication
- THD of voltage and current
- Single load option 3p4w (SDM630MCT-1L)
- Dual load option 3p4w (SDM630MCT-2L)
- Tri load option 3p4w (SDM630MCT-3L)
- Quad load option 3p4w (SDM630MCT-4L)

Introduction

SDM630MCT-ML is a new multifunction energy meter designed by Eastron for multi channels measurements. The meter can work with 1p2w, 1p3w, 3p3w and 3p4w electricity grid, and it provides all important electrical parameters: voltage, current, power, PF, THD, frequency, demand, energy etc. By using plug-in connectors, the meter provides an easy click solution saving 80% installation time and avoiding wiring mistakes. It can be used as 4x three phase energy meters or 12x single phase energy meters. 100mA/100mV secondary external CT is required to work with the meter. The meter is equipped with a RS485 communication port by using 2x RJ45 connectors. Modbus RTU protocol is adopted for remote reading and programming. The meter has a big backlit LCD showing data and uses 4 touch buttons in front for data checking and programming.

Specification	
Nominal voltage(Un)	3x230/400V ac



SDM54 Modbus / Mbus / 2T

THREE PHASE MULTI-FUNCTION POWER ANALYZER

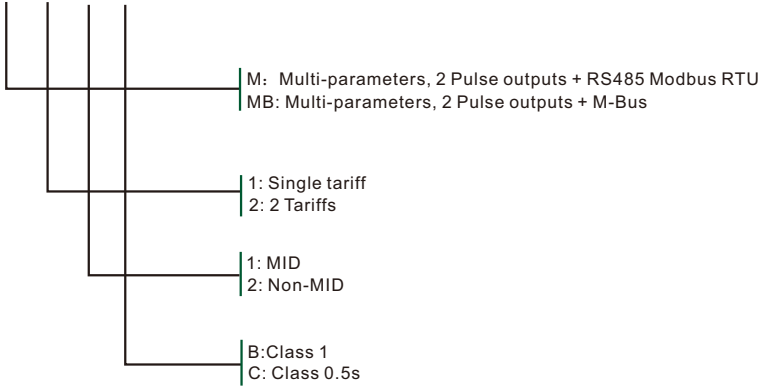
- 100A direct load
- Work with 3P4W / 1P2W / 1P3W
- 3 Module 54mm wide
- Measures kWh,kVarh,W,Var,VA,PF,HZ,dmd,V,A,THD,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- 2 Tariffs available(dual power source)

Introduction

The SDM54 measures and displays the characteristics of single phase two wires (1p2w) and three phase four wires(3p4w) supplies, including voltage, frequency, current, power, power factor, active and reactive energy, imported or exported. Energy is measured in terms of kWh and kVarh. Maximum demand on power and current can be measured over preset periods of up to 60 minutes. SDM54 supports max. 100A direct loads per phase, with dual tariff management availability. The meter is designed for DIN-rail mounting, with IP51 front protection. The meter is optionally equipped with pulse outputs, RS485 Modbus port or M-bus port. Configuration can also be done via keypad, which is password protected.



SDM54—M—4—1—C



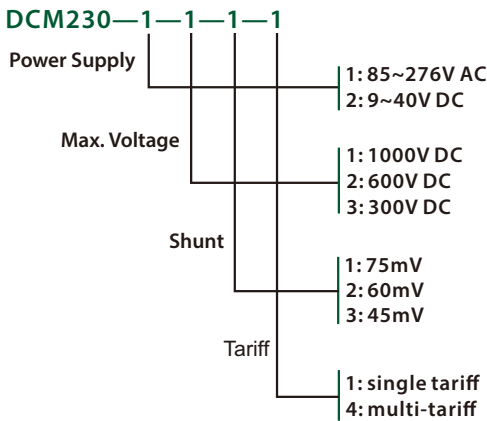


DCM230
DC POWER ENERGY METERS

- 2 Modules Mini Size
- LCD Display with Backlit
- Voltage Input 5...1000V DC
- Current Input 75mV/60mV/45mV,etc.
- Record 12 Months kWh Information
- Bi-directional Measurement
- Pulse Output
- RS485 Modbus RTU

Introduction

Eastron DCM230 series DC energy meters are designed for measuring and monitoring in DC systems. The din rail DC energy meters can measure of important DC parameters: voltage, current, power and energy etc. It also supports bi-directional measurement with pulse output. All data in the meter are accessible via RS485 Modbus RTU. The meter has two versions working with AC or DC power supply. Input voltage range up to 300, 600, 1000V DC, and current inputs are flexible with DC shunt and current sensors. The multi-tariff version has a RTC equipped inside, it can provides multi-tariff information and monthly records.



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SDM230-LoRa



SDM630MCT-LoRa



SDM530-LoRa

Introduction

LoRa stands for Long Range Radio. It is the wireless technology mainly targeted for M2M and IoT networks.

Eatron's LoraWAN Series are equipped with a built-in LoraWAN module, which allows long range wireless communication. These series could measure and display the characteristics of single phase two wire (1p2w) or three phase four wire (3p4w) supplies, including kWh, kVArh, kW, kVAR, kVA, PF, Frequency, Voltage, Current, dmd. etc.

The model SDM530-LoraWAN also equips with a built-in relay, which could realize remote power control. Besides the LoraWAN communication, two pulse outputs are available for real time energy measurement.

Features:

- High accuracy, Class 1/ Class 0.5S
- MID Approved (SDM230-Lora & SDM630MCT-Lora)
- ETL Approved (SDM630MCT-Lora)
- Built-in relay for remote control
- Confirmations / Offline detection available
- Long range wireless communication, saving cost on wiring
- Built-in LoRa module, compliant with multiple gateway & server suppliers.
- Mult-parameters measurement. Data can be actively uploaded to the LoRa Network Server in configurable interval.

