




WE MEASURE ELECTRICITY

PRODUCT CATALOG

EASTRON

Web: www.eastrongroup.com
E-mail: sales@eastrongroup.com
Tel: +86-573-83698881 Fax: +86-573-83698883
Add: No.1369,Chengnan Rd. Jiaxing, Zhejiang, 314001, China

ZHEJIANG EASTRON ELECTRONIC CO., LTD.
JIAXING . CHINA

EASTRON

ISO9001:2015 MID

PROFESSIONAL MANUFACTURER OF METERS

COMPANY INTRODUCTION

Eastron Electronic Co., Ltd., headquartered in Jiaxing, China, is one of the leading high-tech manufacturer and supplier for electricity products and energy measurement solutions. Over the years, we have developed a rich range of electricity meters, sensors, communication modules and management systems. Our products are widely used in such applications as:

- Original Equipment Manufacturers (Switchboard/ Panel Boards, EV Charging Points and Infrastructures)
- System Integrators for remote monitoring (Energy Analysis, Smart Buildings and Billing Applications)
- Renewable energy (Solar, Wind)

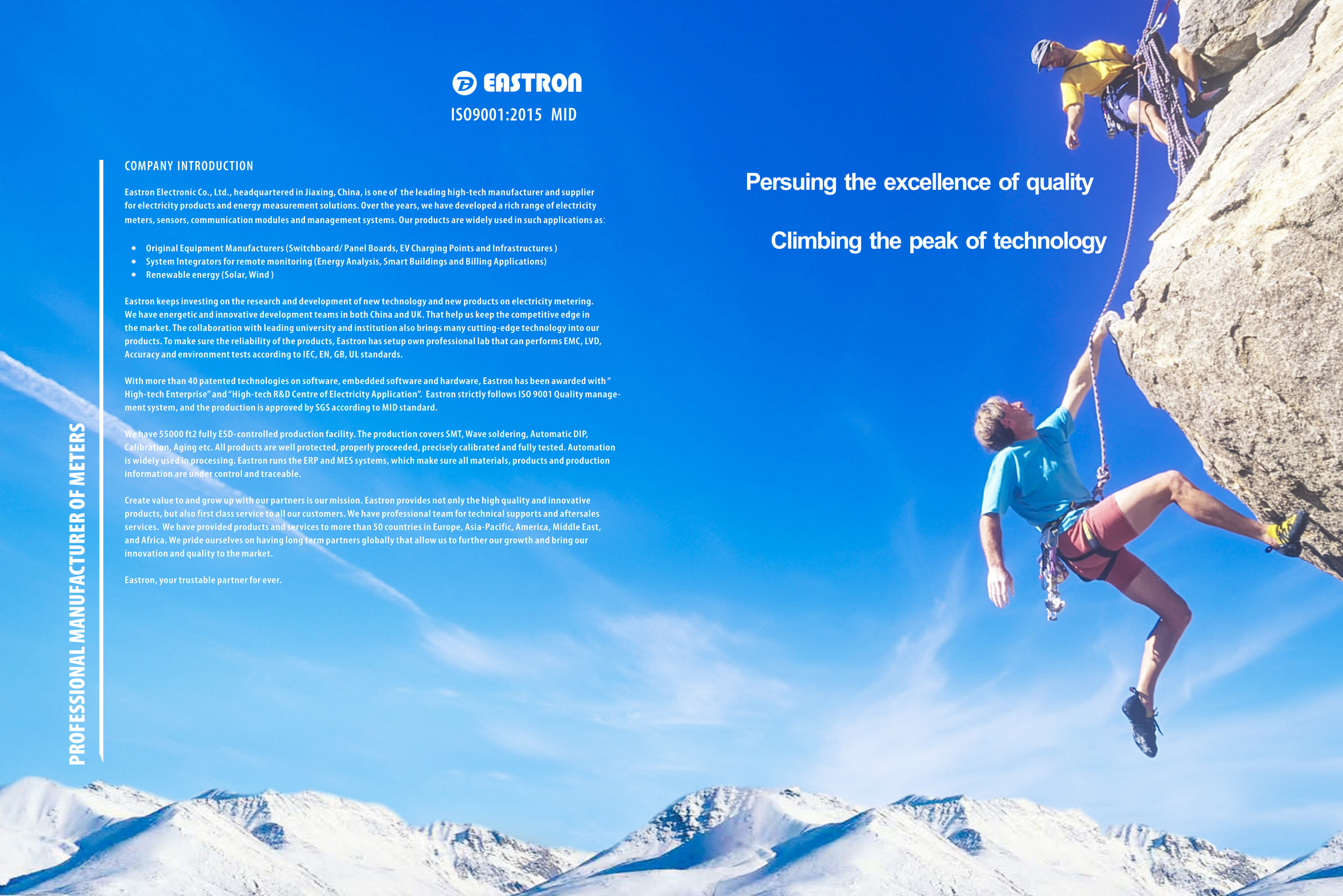
Eastron keeps investing on the research and development of new technology and new products on electricity metering. We have energetic and innovative development teams in both China and UK. That help us keep the competitive edge in the market. The collaboration with leading university and institution also brings many cutting-edge technology into our products. To make sure the reliability of the products, Eastron has setup own professional lab that can performs EMC, LVD, Accuracy and environment tests according to IEC, EN, GB, UL standards.

With more than 40 patented technologies on software, embedded software and hardware, Eastron has been awarded with "High-tech Enterprise" and "High-tech R&D Centre of Electricity Application". Eastron strictly follows ISO 9001 Quality management system, and the production is approved by SGS according to MID standard.

We have 55000 ft2 fully ESD-controlled production facility. The production covers SMT, Wave soldering, Automatic DIP, Calibration, Aging etc. All products are well protected, properly proceeded, precisely calibrated and fully tested. Automation is widely used in processing. Eastron runs the ERP and MES systems, which make sure all materials, products and production information are under control and traceable.

Create value to and grow up with our partners is our mission. Eastron provides not only the high quality and innovative products, but also first class service to all our customers. We have professional team for technical supports and aftersales services. We have provided products and services to more than 50 countries in Europe, Asia-Pacific, America, Middle East, and Africa. We pride ourselves on having long term partners globally that allow us to further our growth and bring our innovation and quality to the market.

Eastron, your trustable partner for ever.



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.

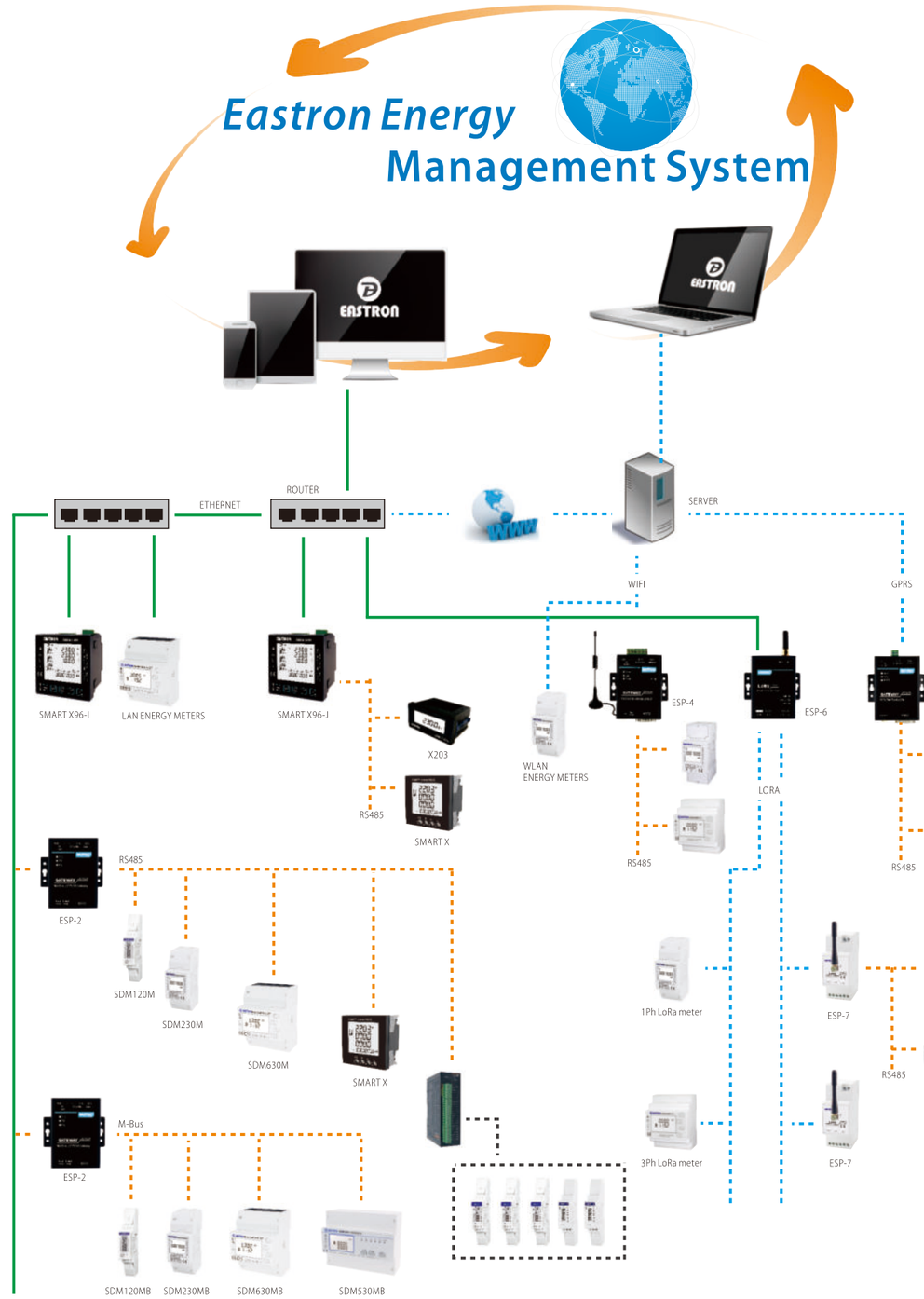
Certificates MID B +D we have:

Which products of us are MID approved by SGS.

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

 SDM120 Series / SGS0141	 SDM120CT Series / SGS0141	 SDM220 Series / SGS0172	 SDM230 Series / SGS0206
 SDM630MCT Series / SGS0142	 SDM630100A V2 Series / SGS0151	 SDM630 100A Series / SGS0151	 SDM72 Series / SGS0213
 Smart X96 Series / SGS0288	 SDM320Y Series / SGS0391		

MID becomes the ONLY accepted European Legislation from 2016!



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)

ETHERNET MODBUS -TCP POWER METER

Smart X96-5I/J

SMART ENERGY ANALYZER FOR SINGLE AND THREE PHASE SYSTEMS

- Multi-parameter Measurements
- Up to 63rd THD and IHD
- RS485 Modbus RTU
- Ethernet TCP Gateway
- Multi-tariffs
- Digital Input/Output
- Accuracy Class 0.2s
- Bar Graph for Power Indication
- Backlit LCD Display for Full Viewing Angles
- Push-in Installation and Plug-in Connection

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

SDM630-Modbus V2
- 4 Module 72 mm wide
- 100A direct load
- Multi-measurement
- Bi-directional measurement
- 2 Pulse output (configurable)
- Modbus RTU (DLT 645 option)
- MID B+D

SDM120CTM
- 1 Module 18 mm wide
- 5A / 40mA CT operated
- Multi-measurement
- Bi-directional measurement
- 2 Pulse output (configurable)
- Modbus RTU (DLT 645 option)
- MID B+D

SDM72D-M
- 4 Module 72 mm wide
- 100A direct load
- Multi-measurement
- Bi-directional measurement
- 1 Pulse output
- Modbus RTU (DLT 645 option)
- MID B+D

SDM72CT-M
- 4 Module 72 mm wide
- 5A CT operated
- Multi-measurement
- Bi-directional measurement
- 2 Pulse output (configurable)
- Modbus RTU (DLT 645 option)

SDM630MCT
- 4 Module 72 mm wide
- 5A / 40mA CT operated
- Multi-measurement
- Bi-directional measurement
- 2 Pulse output (configurable)
- Modbus RTU (DLT 645 option)
- MID B+D

DCM230
- 2 Module 36 mm wide
- Voltage input 5...10000V DC
- Current input 75mV/60mV/45mV
- Multi-measurement
- Bi-directional measurement
- Multi-tariff (RTC)
- Modbus RTU

DCM232
- 4 Module 72 mm wide
- Voltage input 5...10000V DC
- Current input 75mV/60mV/45mV
- Multi-measurement
- Bi-directional measurement
- Multi-tariff (RTC)
- Modbus RTU

SINGLE &THREE PHASE
AC/DC ENERGY METERS
EV CHARGER
SOLAR INVERTER

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(100)A	Multi-parameters, Imp&Exp	RS485 Modbus

SDM220 SERIES

> Single Phase

Model	Specifications	Description	Output
SDM220Modbus	230V/110V,0.25~5(100)A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse Output
SDM220Mbus	230V/110V,0.25~5(100)A	Multi-parameters, Imp & Exp	Mbus +2 Pulse Output
SDM220MT	230V/110V,0.25~5(100)A	Multi-parameters, Imp & Exp , 4 Tariffs	RS485 Modbus +2 Pulse Output

SDM230 SERIES

> Single Phase

Model	Specifications	Description	Output
SDM230A	230V,0.5~10(100)A,Analogue	Active Energy(kWh)	Pulse Output
SDM230D	230V/110V,0.5~10(100)A	Active Energy(kWh)	Pulse Output
SDM230DR	230V,0.5~10(100)A	Active Energy(kWh), W, Resettable	Pulse Output
SDM230Bi	230V,0.5~10(100)A	Active Energy(kWh), W, Imp &Exp, Resettable	Pulse Output
SDM230Modbus	230V,0.5~10(100)A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse Output
SDM230Mbus	230V,0.5~10(100)A	Multi-parameters, Imp & Exp	Mbus+2 Pulse Output
SDM230Pulse	230V,0.5~10(100)A	Multi-parameters, Imp & Exp	2 Pulse Output
SDM230Std	230V,0.5~10(100)A	Active Energy(kWh),Imp & Exp (kWh & W)	RS485 Modbus +2 Pulse Output
SDM230-2T	230V,0.5~10(100)A	Multi-parameters, Imp & Exp, 2 Tariff (Dual Power Source)	RS485 Modbus +2 Pulse Output

SDM320 SERIES

> Single Phase

Model	Specifications	Description	Output
SDM320Y-D	230V,0.5~10(100)A	Active Energy(kWh)	Pulse Output
SDM320E	230/110V,0.5~10(100)A	Active Energy(kWh) , 1P3W	Pulse Output
SDM320Y-RF	230V , 0.5~10(80)A	Multi-parameters, Imp & Exp, Prepaid	RS485Modbus +Pulse output

SDM72 CT SERIES

> Three Phase

Model	Specifications	Description	Output
SDM72CT-D	3X230(400)V,0.25~5(6)A	Active Energy(kWh)	Pulse Output
SDM72CT-M	3X230(400)V,0.25~5(6)A	Active Energy(kWh), W, Imp & Exp, Resettable	RS485 Modbus +2 Pulse Output

SDM72 SERIES

> Three Phase

Model	Specifications	Description	Output
SDM72D	3X230(400)V, 0.5~10(100)A, 50/60Hz	Active Energy(kWh)	Pulse Output
SDM72DR	3X230(400)V, 0.5~10(100)A, 50/60Hz	Active Energy(kWh), W, Resettable	Pulse Output
SDM72BI	3X230(400)V, 0.5~10(100)A, 50/60Hz	Active Energy(kWh), W, Imp & Exp, Resettable	2 Pulse Output
SDM72D-M	3X230(400)V, 0.5~10(100)A, 50/60Hz	Active Energy(kWh), W, Imp & Exp, Resettable	RS485 Modbus +2 Pulse Output

SDM630 100A V2 SERIES

> Three Phase

Model	Specifications	Description	Output
SDM630Pulse V2	3X230/400V,0.5~10(100)A	Multi-parameters, Imp & Exp	2 Pulse Output
SDM630Std V2	3X230/400V,0.5~10(100)A	Active Energy(kWh),Imp & Exp (kWh & W)	RS485 Modbus +2 Pulse Output
SDM630Modbus V2	3X230/400V,0.5~10(100)A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse Output
SDM630Mbus V2	3X230/400V,0.5~10(100)A	Multi-parameters, Imp & Exp	Mbus+2 Pulse Output
SDM630MT V2	3X230/400V,0.5~10(100)A	Multi-parameters, Imp & Exp, 4 Tariffs (RTC)	RS485 Modbus +2 Pulse Output
SDM630-2T V2	3X230/400V,0.5~10(100)A	Multi-parameters, Imp & Exp, 2 Tariffs (Dual Power Source)	RS485 Modbus +2 Pulse Output

SDM630 100A V3 SERIES

> Three Phase

Model	Specifications	Description	Output
SDM630-Modbus V3	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp	Rs485 Modbus + 2 Pulse output
SDM630M-DI V3	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp	Rs485 Modbus + 2 Pulse output + DI
SDM630-2T V3	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp, 2 Tariffs(Dual Power Source)	Rs485 Modbus + 2 Pulse output
SDM630-TCP	3X230/400V, 0.5~10(100)A	Multi-parameters, Imp&Exp	Modbus TCP

SDM630 MCT SERIES

> Three Phase

Model	Specifications	Description	Output
SDM630MCT	3X230/400V,1A or 5A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse Output
SDM630MCT-Mbus	3X230/400V,1A or 5A	Multi-parameters, Imp & Exp	Mbus +2 Pulse Output
SDM630MCT-2T	3X230/400V,1A or 5A	Multi-parameters, Imp & Exp, 2 Tariff (Dual Power Source)	RS485 Modbus +2 Pulse Output
SDM630MCT-MT	3X230/400V,1A or 5A	Multi-parameters, Imp & Exp, 4 Tariff (RTC)	RS485 Modbus +2 Pulse Output
SDM630MCT-MV	3X230/400V, 333mV CT, 40mA, 100mA	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse Output
SDM630MCT-RC	3X230/400V,Rogowski Coil	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse Output

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-Modbus	3X230(400)V,0.5~10(100)A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse output
SDM530-DO	3X230(400)V,0.5~10(100)A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse output +DO
SDM530-Mbus	3X230(400)V,0.5~10(100)A	Multi-parameters, Imp & Exp	Mbus+2 Pulse output
SDM530-MT	3X230(400)V,0.5~10(100)A	Multi-parameters, Imp & Exp, 4 tariff (RTC)	RS485 Modbus +2 Pulse output
SDM530CT-Modbus	3X230(400)V,1A or 5A	Multi-parameters, Imp & Exp	RS485 Modbus +2 Pulse output
SDM530CT-Mbus	3X230(400)V,1A or 5A	Multi-parameters, Imp & Exp	Mbus+2 Pulse output
SDM530CT-MT	3X230(400)V,1A or 5A	Multi-parameters, Imp & Exp, 4 tariff (RTC)	RS485 Modbus +2 Pulse output

REMOTE CONTROL SERIES

Model	Specifications	Description	Output
SDM320C	230V, 0.25~5(100)A	Multi-parameters, Imp & Exp	RS485 Modbus + Pulse output
SDM320Y	230V, 0.25~5(100)A	Multi-parameters, Imp & Exp, Prepaid	RS485 Modbus + Pulse output
SDM530C	3X230(400)V, 0.25~5(100)A	Multi-parameters, Imp & Exp	RS485 Modbus + Pulse output
SDM530Y	3X230(400)V, 0.25~5(100)A	Multi-parameters, Imp & Exp, Prepaid	RS485 Modbus + Pulse output

DC METER SERIES

Model	Specifications	Description	Output
DCM230	5-1000V DC, 75/60/45mV shunt	Multi-parameters, Imp&Exp	RS485 Modbus + Pulse output
DCM232	5-1000V DC, 75/60/45mV shunt	Multi-parameters, Imp&Exp, 2 Channel	2 RS485 Modbus + 2 Pulse output

MULTI CIRCUIT MONITORING SOLUTION

Model	Specifications	Description
MCS-I32	3x CT operated RJ12 input	Multi-Parameters, THD, Demand, Alarm
MCS-U22	3x230/400V; 3x127/220V	Voltage , Frequency, THD-u, Alarm, RS485 Modbus
MCS-D50	85-276V AC power supply	Graphical display , RS485 Modbus, Ethernet
MCS-D60	85-276V AC power supply	Graphical display , RS485 Modbus, Ethernet, Web server

WIRELESS METER SERIE

Model	Specifications	Description	Output
SDM230-Lora	230V, 0.5~10(100)A	Multi-parameters, Imp&Exp	LoraWAN + 2 Pulse output
SDM630MCT-Lora	3x230/400V, 1A or 5A CT	Multi-parameters, Imp&Exp	LoraWAN + 2 Pulse output
SDM530-Lora	3x230/400V, 0.25~5(100)A	Multi-parameters, Imp&Exp, Built-in relay	LoraWAN +Pulse output

SMART X96 SERIES

> Three Phase

Model	Specifications	Description	Output
Smart X96-1A	3x230/400V, 100mA CT 3P4W, 3P3W, 2P3W, 1P2W	85 electric parameters measured; Class 1.0/0.5s; 2~63rdTHD; self-power supply	RS485 Modbus+2 Pulse output
Smart X96-5A	3x230/400V, 1A or 5A 3P4W, 3P3W, 2P3W, 1P2W	85 electric parameters measured; Class 1.0/0.5s; 2~63rdTHD; self-power supply	RS485 Modbus+2 Pulse output

SMART X96-5 SERIES

> Three Phase

Model	Specifications	Description	Output
Smart X96-5F	3x230/400V, 1A or 5A 3P4W, 3P3W, 2P3W, 1P2W	85 electric parameters measured; Class 1.0/0.5s/0.2s; 2~63rdTHD; Aux. power supply	RS485 Modbus
Smart X96-5G	Sameas Model"F"	Model"F"+4DI and 2DO	RS485 Modbus+DI/DO
Smart X96-5H	Sameas Model"F"	Model"F"+Ethernet port	RS485 Modbus+Modbus TCP
Smart X96-5I	Sameas Model"F"	Model"F"+Ethernet port+4DI and 2DO	RS485 Modbus+Modbus TCP+DO
Smart X96-5J	Sameas Model"F"	Model"F"+Ethernet Gateway (RTU to TCP) +4DI and 2DO	RS485 Modbus+Modbus TCP+DO
Smart X96-RC	3X230/400V,Rogowski Coil 3P4W, 3P3W, 2P3W, 1P2W	85 electric parameters measured; CT&PT programmable; Class 1.0/0.5s/0.2s; Aux. power supply	RS485 Modbus

SMART X835 SERIES

> Three Phase

Model	Specifications	Description	Output
Smart X835B	3x230/400V, 1A/5A 3P4W, 3P3W, 1P2W	Multi-parameters; CT&PT programmable; Class 1.0/0.5s; 2~63rdTHD; Aux. powersupply	RS485 Modbus+2 Pulse output
Smart X835-AO	3x230/400V, 1A/5A 3P4W, 3P3W, 1P2W	Multi-parameters; CT&PT programmable; Class 1.0/0.5s; 2AO; 2~63rdTHD; Aux. powersupply	RS485 Modbus+2AO+2Pulse output
Smart X835 DIO	3x230/400V, 1A/5A 3P4W, 3P3W, 1P2W	Multi-parameters; CT&PT programmable; Class 1.0/0.5s; 2DO; 2DI; 2~63rdTHD; Aux. powersupply	RS485 Modbus+2DI/DO+2Pulse output

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~460800bps	Ethernet TCP	9~48V DC

RS485-WIFI SERIES

> wifi Gateway

Model	Input	Output	Power supply
ESP-4104	RS485; 2400bps~230400bps	IEEE802.11g/b/n	5~36V DC
ESP-W11	RS485; 300bps~230400bps	IEEE802.11g/b/n	100~240VAC@50~60Hz/9~48VDC@1A

RS485-4G SERIES

> 4G Gateway

Model	Input	Output	Power supply
ESP-5307	RS485;1200~460800bps	2G/3G/4G	9~36V DC
ESP-G11	RS485;1200~460800bps	2G/3G/4G	100~240VAC@50~60Hz/9~48VDC@1A

LORA SERIES

> LoRa Gateway

Model	Input	Output	Power supply
ESP-65	Ethernet	27dBm Max;IEEE 802.11 b/g/n	9~24 V DC/1x802.3 af PoE input
ESP-1152	RS232(4800~115200bps)/RS485(1200~115200 bps)	LoRaWAN®	5~24V DC

ESCT-T SERIES

> Split Core

Model	Primary Current	Secondary Output	Accuracy
ESCT-T24	100,150,200,250,300A	5A /1A	0.5 / 1
ESCT-T36	100,150,200,300,400,500,600A	5A /1A	0.5 / 1

ESCT-TU SERIES

> Split Core

Model	Primary Current	Secondary Output	Accuracy
ESCT-TU10	5,10,20,50, 75 A	333mV/100mV/100mA/40mA	0.5 / 1
ESCT-TU16	5,10, 50,100,150 A	333mV/100mV/100mA/40mA	0.5 / 1
ESCT-TU24	10, 50, 100, 250, 300A	333mV/100mV/100mA/40mA	0.5 / 1
ESCT-TU36	20, 100,250,400,600 A	333mV/100mV/100mA/40mA	0.5 / 1

ESCT-U SERIES

> Split Core

Model	Primary Current	Secondary Output	Accuracy
ESCT-U75	5,10,50, 75,100,125,150,200 A	100mA/100mV/333mV	0.5 / 1
ESCT-U125	50,100,200,250,400,600,630A	100mA/100mV/333mV	0.5 / 1
ESCT-U200	100,125,250,400,630,800,1000,2000A	100mA/100mV/333mV	0.5 / 1
ESCT-U300	400,800,1000,1500,2500,3000A	100mA/100mV/333mV	0.5 / 1

ESCT-B SERIES

> Split Core

Model	Primary Current	Secondary Output	Accuracy
ESCT-B23	100,150,200,250,300,400A	5A /1A	0.5 / 1
ESCT-B58	250,300,400,500,600,750,800,1000A	5A /1A	0.5 / 1
ESCT-B812	500,600,750,800,1000,1200,1250,1500A	5A /1A	0.5 / 1
ESCT-B816	1000,1500,2000,2500,3000,4000,5000,6000A	5A /1A	0.5 / 1

ESP-RJ-1 SERIES

> RJ12

Model	Primary Current	Secondary Output	Accuracy
ESCT-RJ16	5,10,50,100,150A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ24	10,50,100,250,300A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ36	20,100,250,400,500,600,700,800A	100mA/100mV/333mV	0.5 / 1
ESCT-RJ50	200,250,300,400,500,600,700,800,1000,1200A	100mA/100mV/333mV	0.5 / 1

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	0.5 / 1
ESCT-P36T	200,250,300,400,500,600,630,800A	100mA/100mV/333mV	0.5 / 1
ESCT-P16	5,63,100,160,250A	100mA/100mV/333mV	0.5 / 1
ESCT-P24	100,200,250,300,400A	100mA/100mV/333mV	0.5 / 1
ESCT-P36	200,250,300,400,500,600,800A	100mA/100mV/333mV	0.5 / 1
ESCT-P36W	200,400,600,800,1000A	100mA/100mV/333mV	0.5 / 1

ESCT-C SERIES

> 3-in-1

Model	Primary Current	Secondary Output	Accuracy
ESCT-C325	60,100,125,150,200A	5A	0.5 / 1
ESCT-C335	100,125,150,160,200,250A	5A	0.5 / 1
ESCT-C345	250,300,400,500,600,630A	5A	0.5 / 1

ESCT-SC SERIES

> 3-in-1

Model	Primary Current	Secondary Output	Accuracy
ESCT-SC325	60,100,125,150,300A	1A	0.5 / 1
ESCT-SC335	100,125,150,300,160,200,250A	1A	0.5 / 1
ESCT-SC345	250,300,400,500,600,630A	1A	0.5 / 1

ESCT-ABO SERIES

> Solid Core

Model	Primary Current	Secondary Output	Accuracy
ESCT-ABO30	50,60,75,100,150,200,250,300A	5A	0.5S / 0.5
ESCT-ABO40	75,80,100,150,200,250,300,400,500A	5A	0.5S / 0.5
ESCT-ABO60	200,250,300,400,500,600,750,800,1000A	5A	0.5S / 0.5
ESCT-ABO100	800,1000,1200,1500,1600,2000,2500,3000A	5A	0.5S / 0.5

ESCT-DM SERIES

> Solid Core

Model	Primary Current	Secondary Output	Accuracy
ESCT-DM20/30	50,60,75,80,100,120,150,200,250,300 A	5A	1
ESCT-DM20/35	50,60,75,80,100,120,150,200,250,300 A	5A	1

ESCT-RC SERIES

> Rogowski Coil

Model	Primary Current	Secondary Output	Accuracy
ESCT-RC16	100A	50mV/kA	0.5 / 1
ESCT-RC24	300A	50mV/kA	0.5 / 1
ESCT-RC36	600A	50mV/kA	0.5 / 1
EACT-RC45	500A	85mV/kA	0.5 / 1
ESCT-RC60	500A	85mV/kA	0.5 / 1
ESCT-RC100	1000A	85mV/kA	0.5 / 1
ESCT-RC105	1500A	85mV/kA	0.5 / 1
ESCT-RC150	3000A	85mV/kA	0.5 / 1
ESCT-RC200	6000A	85mV/kA	0.5 / 1
ESCT-RC240	10000A	85mV/kA	0.5 / 1

ESCT-RCI Series

> INTEGRATOR

Model	Specification	Secondary Output	Phase error
ESCT-RCI-01	Single Phase	1A	≤0.5°
ESCT-RCI-03	Single Phase	333mV	≤0.5°
ESCT-RCI-A01	Three Phase	1A	≤0.5°
ESCT-RCI-A05	Three Phase	5A	≤0.5°
ESCT-RCI-9.1	Single Phase	333mV	≤0.5°

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

CERTIFIED MID CERTIFIED

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 provideds 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 1 minute
- Impulse voltage withstand	6KV-1.2μS
Basic current (Ib)	5A
Maximum rated current (Imax)	45A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50 / 60Hz
Internal power consumption	≤ 1W/8VA
Pulse output	1000imp/kWh
Display	LCD with backlight
Max reading	99999.9 kWh/kVarh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃ or -40℃~+70℃
Storage temperature	-40℃ - +80℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

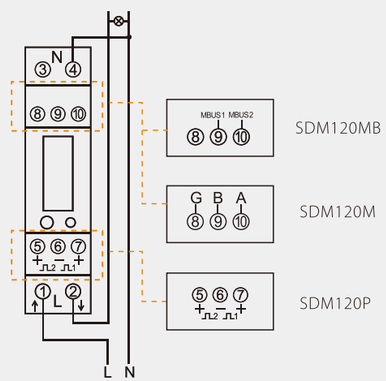
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps/19200(optional)bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

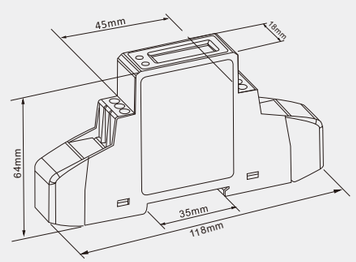
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

Wiring diagram



Dimensions



Height 118mm
Width 18mm
Depth 64mm

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

CERTIFIED MID CERTIFIED

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.

SDM120—CT—M—1—1

- CT: 1A/5A CT operated type
  MV: 100mV CT operated type
  mA: 40mA/100mA CT operated type
- 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 1 minute
- Impulse voltage withstand	6KV-1.2μS
Primary current	5~9999A
Secondary input	1A/5A, 100mA, 40mA
Over current withstand	20 Imax for 0.01s
Operational frequency range	50 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output 1	configurable
Pulse output 2	1000imp/kWh
Display	LCD with backlight
Max reading	999999 kWh/kVarh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C or -40°C~+70°C
Storage temperature	-40°C - +80°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

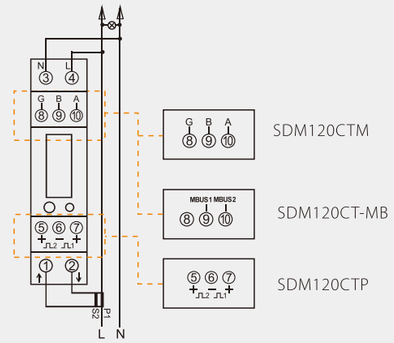
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps/19200(optional)bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

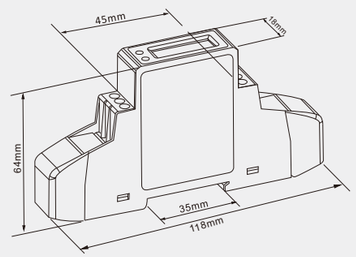
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

Wiring diagram



Dimensions



Height 118mm
Width 18mm
Depth 64mm

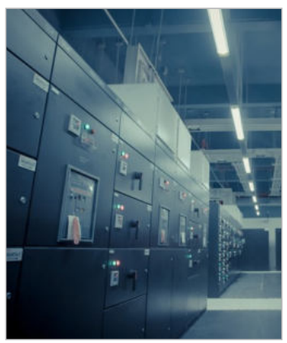
SDM18 Modbus/Mbus

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.



SDM18—M—1—1

- M: Multi-parameters, RS485 Modbus RTU
  MB: Multi-parameters, M-Bus Communication
- 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 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

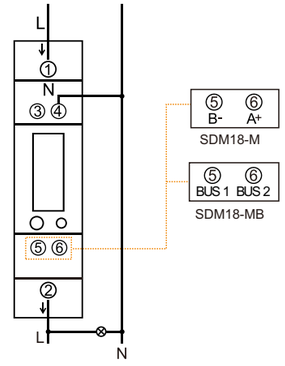
Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Aititude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1

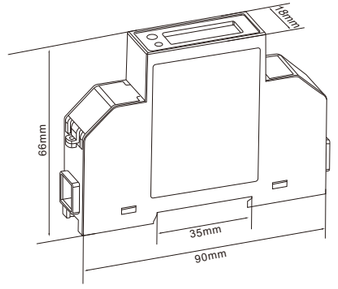
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Wiring diagram



Dimensions



Height 90mm
Width 18mm
Depth 66mm

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)

CERTIFIED MID CERTIFIED

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.

SDM220 —M—1—1

- M: Multi-parameters,2 Pulse outputs, RS485Modbus RTU
  MB: Multi-parameters,2 Pulse outputs, M-bus
  MT:: Multi-parameters,2 Pulse outputs,4 Tariffs, RS485Modbus RTU
- 1:110/120V
  2:220/230V
- 1: MID
  2: Non-MID

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-1.2μS
Basic current (Ib)	5A
Maximum rated current (Imax)	100A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output 1	configurable
Pulse output 2	1000imp/kWh
Max reading	99999.99 kWh/kVarh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II

Multi-tariff	
Time clock error	< 1s/day
Tariff	4
Time segments	10

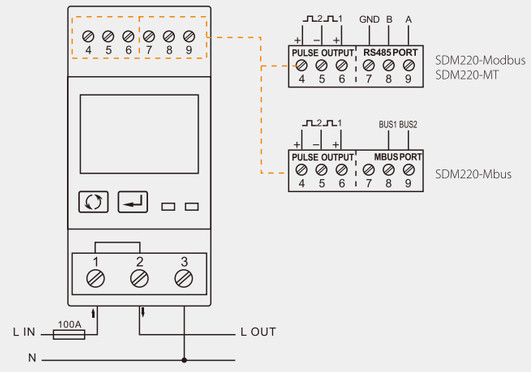
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps/19200(optional)bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

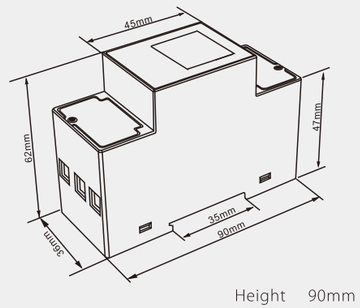
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 0001 to 99 99 99 99

Pulse Output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

Wiring diagram



Dimensions



Height 90mm
Width 36mm
Depth 62mm

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

CERTIFIED MID CERTIFIED

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.

SDM230 —A—1—1—B

- A
  - DI: M+digital input
  - Std: kWh+W, RS485 Modbus RTU
  - P: Multi-parameters, 2 Pulse outputs
  - M: Multi-parameters, 2 pulse outputs, RS 485 Modbus RTU
  - MB: Multi-parameters, 2 Pulse outputs, Mbus
  - 2T:Multi-parameters, 2 pulse outputs, RS 485 Modbus RTU, 2 Tariffs
- 1
  - 1:110/120V
  - 2:220/230V
- 1
  - 1: MID
  - 2: Non-MID
- B
  - B:Class 1
  - C: Class 0.5s

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 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output 1	Configurable
Pulse output 2	1000imp/kWh
Max reading	999999.9 kWh/kVArh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / IEC620532-22 / EN50470-1/3
Accuracy class	Class1/Class0.5S/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

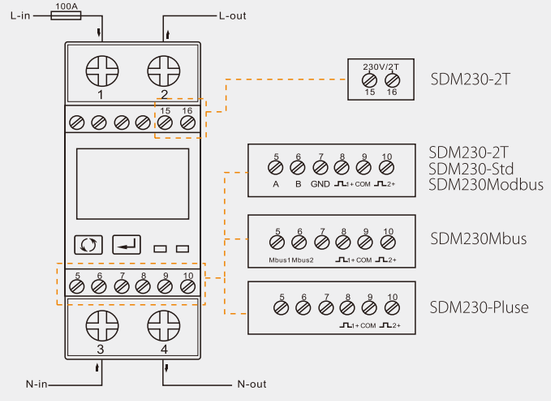
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1/Class0.5s

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps/19200(optional)bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

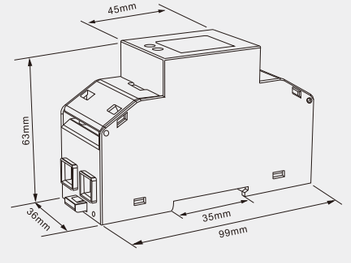
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse Output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

Wiring diagram



Dimensions



Height	99mm
Width	36mm
Depth	63mm

SDM530 Modbus / Mbus / MT / DO

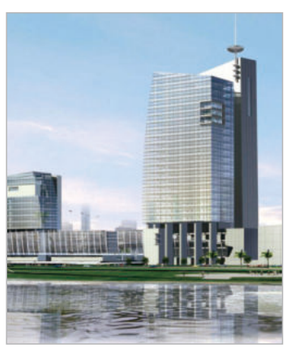
THREE PHASE FOUR WIRE MULTI-FUNCTION ENERGY METER

- 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.



SDM530—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 Tariffs
- B:Class 1
  C: Class 0.5s

Specification	
Nominal voltage(Un)	3x230/400 V 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 or 60Hz
Power consumption per phase	≤ 2W/10VA
Display	LCD
Max reading	999999.99 kWh/kVarh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / IEC 62053-22 / EN50470-1/3
Accuracy class	Class1/Class0.5S/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV

Multi-tariff	
time clock accuracy	< 1s/day
Tariff	4
Time segments	10

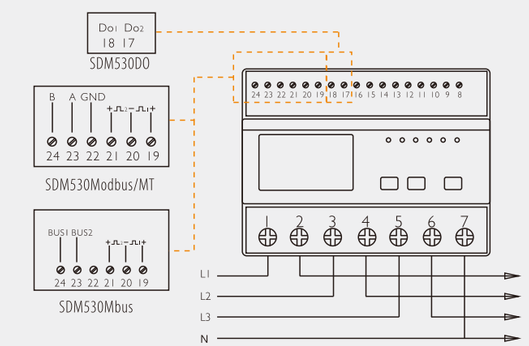
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1/Class0.5s

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

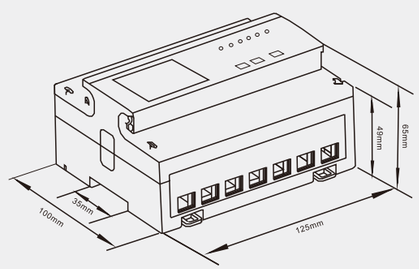
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse Output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	400imp/kWh

Wiring diagram



Dimensions



Height 100mm
Width 125mm
Depth 65mm

SDM530CT Modbus / Mbus / MT / DO

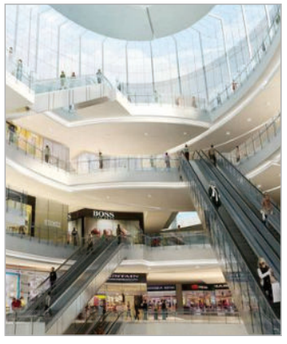
THREE PHASE FOUR WIRE MULTI-FUNCTION ENERGY METER

- 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 Tariffs
- B:Class 1
  C: Class 0.5s

Specification	
Nominal voltage(Un)	3x230/400 V 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	20 Imax for 0.05s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Display	LCD
Max reading	99999999 kWh/kVArh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / IEC 62053-22/ EN50470-1/3
Accuracy class	Class1/Class0.5S/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV

Multi-tariff	
Time clock error	< 1s/day
Tariff	4
Time segments	10

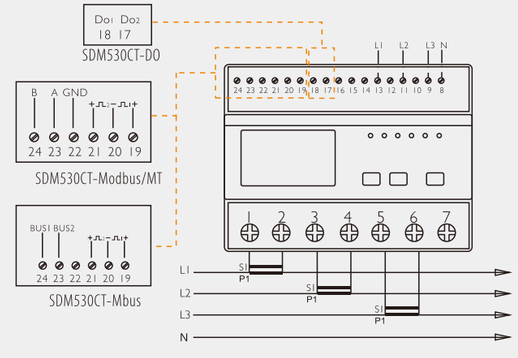
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1/Class0.5s

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

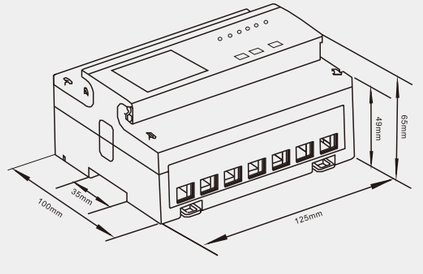
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse Output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

Wiring diagram



Dimensions



Height 100mm
Width 125mm
Depth 65mm

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**

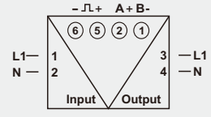
SDM320—C—1—1—C

- **320: Single Phase**
  530: Three Phase
- **C: Remote Control Version**
  Y: Prepaid Version
- **1: 1A or 5A CT connection**
  2: 100A direct connection
- **1: Single tariff**
  4: Multi-Tariffs
- **B: Class 1**
  C: Class 0.5s

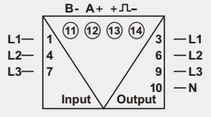
Specification			
Model	SDM320C/Y	SDM530C/Y	SDM530CT-C/Y
Nominal voltage(Un)	230 V~	230 V~ (L-N)/400 V~ (L-L)	230 V~ (L-N)/400 V~ (L-L)
Operational voltage	80%~120% of Un		
AC voltage withstand	4kV for 1 minute		
Impulse voltage withstand	6kV - 1.2/50uS		
Basic current(Ib)	5A		
Operational current range	0.25A-100A	0.25A-100A	0.25A-6A
Over current withstand	30 Imax for 0.01s	30 Imax for 0.01s	20 Imax for 0.5s
Operational frequency rang	50/60Hz		
Self consumption	≤2W/10VA	≤2W/10VA per phase	≤2W/10VA per phase
Pulse output	1000imp/kWh (Configurable)		
Pulse Width	200/100(default) /60mS		
Maximum reading	999999.99kWh/kVArh	999999.99kWh/kVArh	99999999kWh/kVArh
Humidity	Operating: ≤ 90% ; Storage: ≤ 95%		
Temperature	Operating : -25℃ ... +55℃ ; Storage: -40℃ ... +70℃		
Active energy accuracy	Class 0.5s IEC 62053-22	Class 0.5s/ Class C; IEC 62053-22/EN50470-1/3	Class 0.5s IEC 62053-22
Protection degree	IP51(indoor)		
Installation Category	CAT II	CAT III	CAT III
Modbus Communication			
Bus type	RS485 (semi-duplex)		
Baud rate	1200/2400/4800/9600(default) bps		
Address range	1-247		
Max. Bus loading	64pcs		
Communication Distance	1000M		
Parity	EVEN/ ODD/ NONE		
Data bit	8		
Stop bit	1 or 2		

Wiring diagram

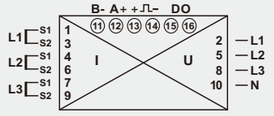
SDM320C&Y



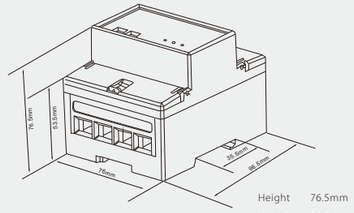
SDM530C&Y

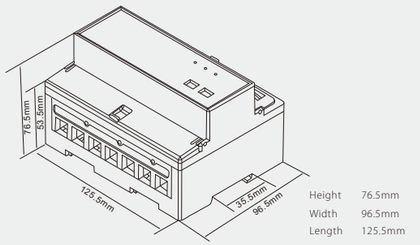


SDM530CT-C&Y



Dimensions





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)

CERTIFIED MID CERTIFIED

Introduction

The SDM630 100A series are three phase multifunction DIN rail meters.They can meaure and display the characteritics 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.

SDM630 —M—4—1—C

- M: Multi-parameters, 2 Pulse outputs + RS485 Modbus RTU
  2T: Multi-parameters, 2 Pulse outputs + RS485 Modbus RTU + 2T
  TCP: Multi-parameters, 2 Pulse outputs + Modbus TCP
  W: Wifi
- 1: Single tariff
  2: 2 Tariffs
  4: 4 Tariffs
- 1: MID
  2: Non-MID
- B:Class 1
  C: Class 0.5s
  D: Class 0.2s

Specification	
Nominal voltage(Un)	3x230/400 V 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 or 60Hz
Power consumption per phase	≤ 2W/10VA
Display	LCD
Max reading	999999.99 kWh/kVarh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C or -40°C~+70°C
Storage temperature	-40°C - +80°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / IEC 62053-22 / EN50470-1/3
Accuracy class	Class1/Class0.5S/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV

Multi-tariff	
Time clock error	< 1s/day
Tariff	4
Time segments	10

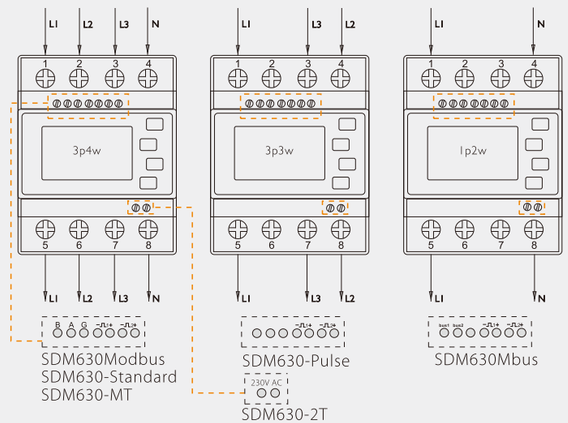
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1/Class0.5s

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

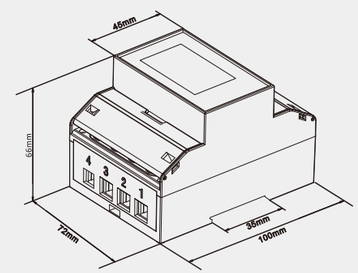
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse Output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	400imp/kWh

Wiring diagram



Dimensions



Height 100mm
Width 72mm
Depth 66mm

SDM630MCT Modbus/Mbus/2T/MV/LoRa/WiFi

THREE PHASE MULTI-FUNCTION ENERGY METER

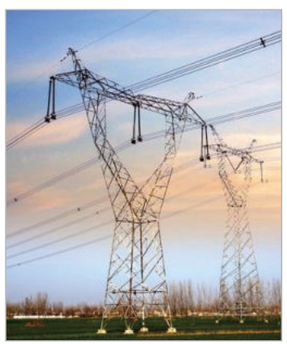
- CT & PT operated
- Work with 3P4W / 3P3W / 1P2W
- 4 Module 72mm wide
- Multi-measurement:kWh,kVarh,W,Var,VA,PF,Hz,dmd,V,A,THD,etc.
- Bi-directional measurement
- 2 Pulse outputs
- RS485 Modbus or M-bus communication
- Wifi / LoRa wireless communication
- 2 Tariffs available(dual power source)

CERTIFIED MID CERTIFIED

Introduction

The SDM630M CT Series are three phase multifunction DIN rail meters. They can measure and display the characteritics 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. In order to measure energy, the unit requires voltage and current inputs to power the meter. The required current inputs are obtained via current transformers. This meter can be configurable to work with a wide range of CTs, giving the unit a wide range of operation. Build-in interface provides pulse and RS485 Modbus RTU or Mbus outputs. The configuration is password protected.

SDM630 CT Series have been assessed and certified as meeting the requirements of EU Directive 2014/32/EU. The instrument traceable number is 0120/SGS0142.



SDM630MCT—5—J—2—4—1—C

- 5: 1A & 5A
  - 1: 40mA
  - 2: 100mA
  - 3: 100mV
  - 4: 333mV
  - 5: 1A & 5A
- J
  - M:RS485 Modbus RTU
  - MB: M-bus
  - L: LoRaMESH/LoRaWAN
  - W: Wifi
- 2
  - 1: Self-power supply
  - 2: Aux. AC power supply
  - 3: Aux. DC power supply
- 4
  - 1: Single tariff
  - 2: 2 Tariffs
  - 4: 4 Tariffs (RTC)
- 1
  - 1: MID
  - 2: non-MID
- C
  - B:Class 1
  - C: Class 0.5s
  - D: Class 0.2s

Specification	
Nominal voltage(Un)	3x230/400 V ac
Operational voltage	60%~120% of Un
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Rated current (Ib)	5A CT or 333mV/100mA/40mA CT input
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.5s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output 1	Configurable
Pulse output 2	3200 imp/kWh
Display	LCD
Max reading	9999999.9 kWh/kVarh

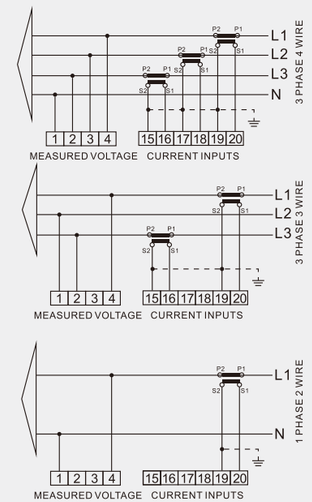
Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃ or -40℃~+70℃
Storage temperature	-40℃ - +80℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21/IEC 62053-22/ EN50470-1/3
Accuracy class	Class1/Class0.5S/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Radiated & conducted emissions	EN 55022

Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1/Class0.5s

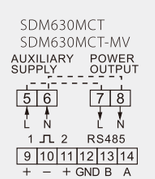
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

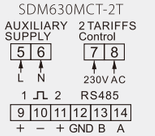
Wiring diagram



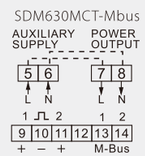
SDM630MCT
SDM630MCT-MV



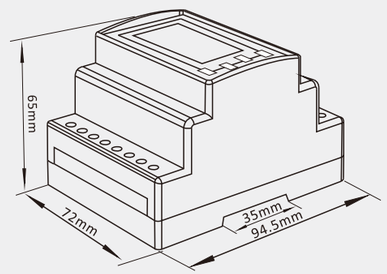
SDM630MCT-2T



SDM630MCT-Mbus



Dimensions



Height 94.5mm
Width 72mm
Depth 65mm

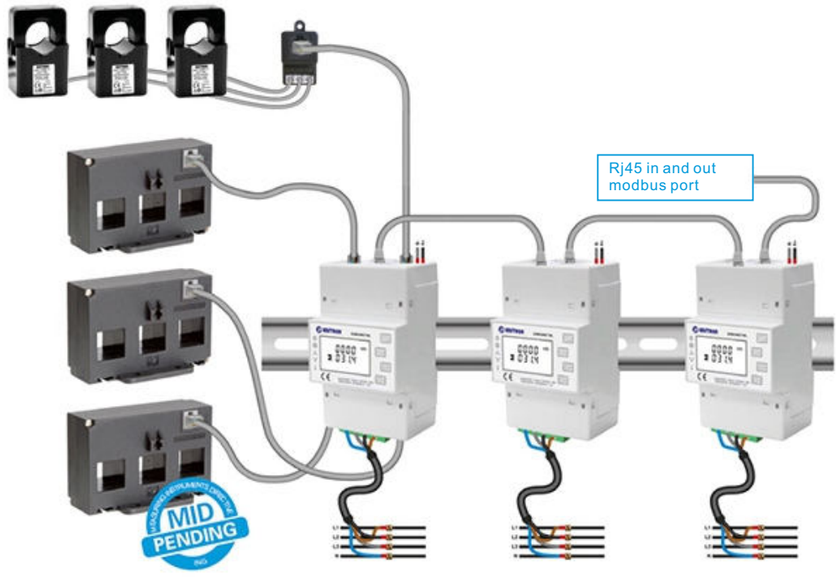
SDM630MCT-ML 4L/3L/2L

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
Operational voltage	80%~120% of Un
Aux.power supply	85~276V AC or 120~380V DC
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Rated current (Imax)	100mA or 100mV CT input
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.5s
Operational frequency range	50 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output indicator	LED
Pulse output rate	1000imp/kWh
Display	LCD
Max reading	99999999 kWh/kVArh

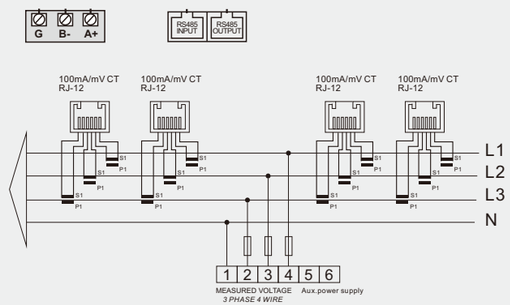
Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21
Accuracy class	Class 1
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Radiated & conducted emissions	EN 55022

Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(VArh)	Class 2
Active energy (Wh)	Class 1

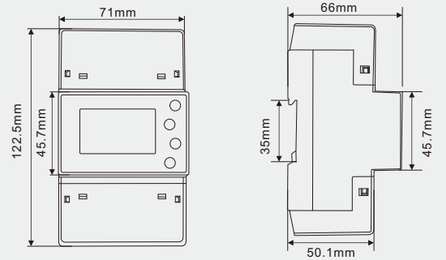
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000m
Parity	EVEN/ODD/NONE
Date bit	8
Stop bit	1

Enclosure	
Mounting	DIN rail(DIN3880)
Dimesion	71 x 122.5 x 66mm(WxHxD)
Protecting rating	IP51(in door)
Material	UL94 V-0
Weight	330g

Wiring diagram



Dimensions



Height 122.5mm
Width 71mm
Depth 66mm

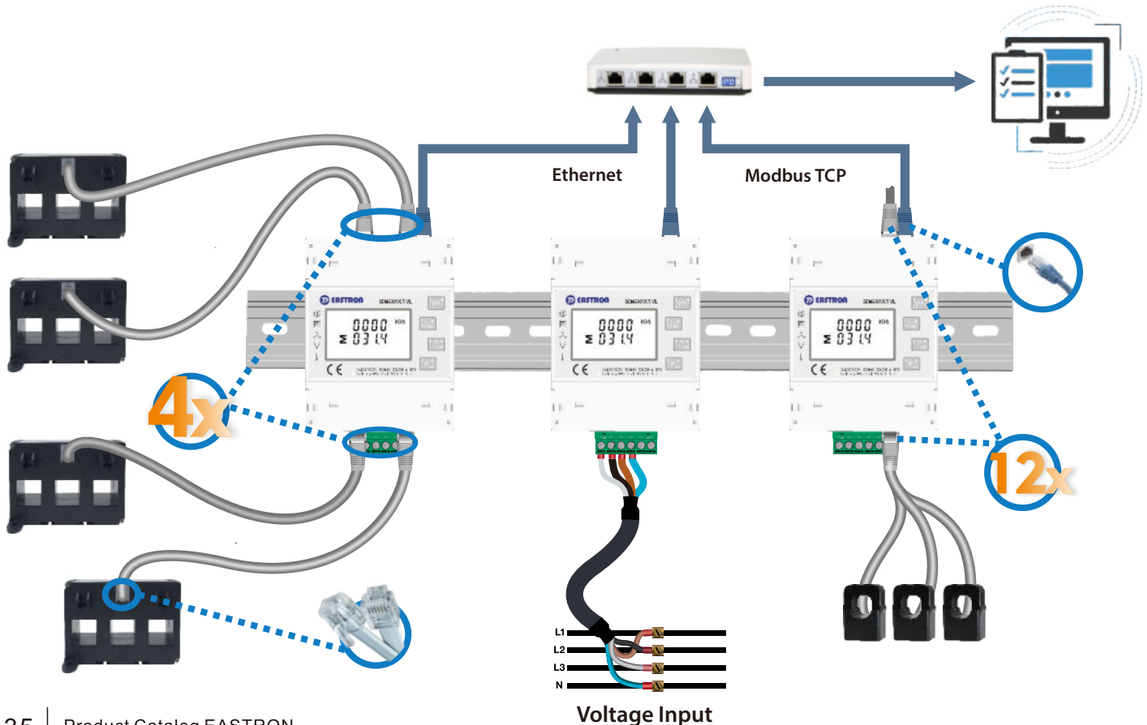
SDM630MCT-ML-TCP

ETHERNET MODBUS-TCP ENERGY METER

- **Ethernet Communication with Modbus-TCP protocol**
- **Single/double/triple/quad 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)**

Introduction

EASTRON SDM630MCT-ML-TCP with Ethernet communication allow the connection to SCADA systems using Modbus TCP protocol. The meter can be directly connected with TCP masters for remote reading.
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.
It can be used as 4x three phase energy meters or 12x single phase energy meters.By using plug- in connectors, the meter provides an easy click solution, saving 80% installation time and avoiding wiring mistakes.



Specification	
Nominal voltage(Un)	3x230/400V ac
Operational voltage	80%~120% of Un
Aux.power supply	85~276V AC
Insulation capabilities	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Rated current (Imax)	100mA or 100mV CT input
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.01s
Operational frequency range	50 or 60Hz
Internal power consumption	≤ 2W/10VA
Display	LCD
Max reading	99999999 kWh/kVArh

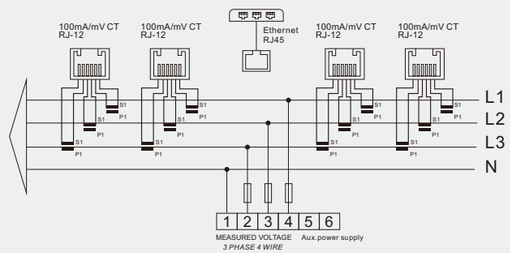
Ethernet Communication	
Interface Standard and Protocol	Ethernet Modbus TCP
Communication Address	1~247
IP Address Assignment	DHCP
	Factory default address: 192.168.1.200
Data Type	Floating Point
Transmission Speed	>100MB
Response Time	<100mS

Enclosure	
Mounting	DIN rail(DIN3880)
Dimesion	71 x 122.5 x 66mm(WxHxD)
Protecting rating	IP51(in door)
Material	UL94 V-0
Weight	330g

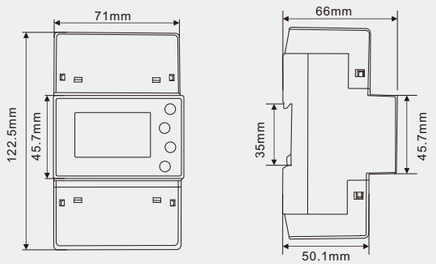
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±1% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 0.5S / Class 1

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / IEC62053-22
Accuracy class	Class 0.5S / 1.0
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Radiated & conducted emissions	EN 55022

Wiring diagram



Dimensions



Height 122.5mm
Width 71mm
Depth 66mm

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

- M: Multi-parameters, 2 Pulse outputs + RS485 Modbus RTU
  MB: Multi-parameters, 2 Pulse outputs + M-Bus
- 1: Single tariff
  2: 2 Tariffs
- 1: MID
  2: Non-MID
- B:Class 1
  C: Class 0.5s

Specification	
Nominal voltage(Un)	3x230/400V 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 or 60Hz
Internal power consumption	≤ 2W/10VA
Display	LCD
Max reading	999999.99 kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / IEC62053-22 / EN50470-1/3
Accuracy class	Class1 / Class 0.5S / Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV

Multi-tariff	
Tariff	Dual tariff

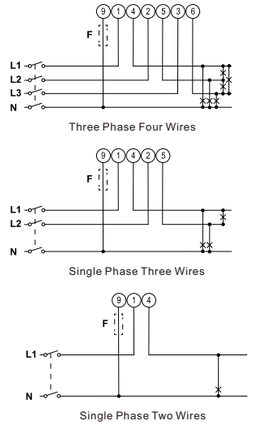
Accuracy	
Voltage,Current	0.5%
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power , Apparent power	±1% of range maximum
Reactive power	±2% of range maximum
Reactive energy(Varh)	Class 2
Active energy (Wh)	Class 1

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

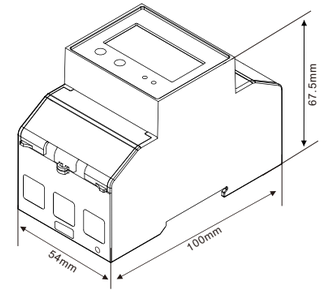
M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600bps
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

Pulse Output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	400imp/kWh

Wiring diagram



Dimensions



Height 100mm
Width 54mm
Depth 67.5mm

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.

DCM230—1—1—1—1

- Power Supply
  - 1: 85~276V AC
  - 2: 9~40V DC
- Max. Voltage
  - 1: 1000V DC
  - 2: 600V DC
  - 3: 300V DC
- Shunt
  - 1: 75mV
  - 2: 60mV
  - 3: 45mV
- Tariff
  - 1: single tariff
  - 4: multi-tariff

Specification	
Input Voltage Range	5-1000V DC / 5-600V DC / 5-300V DC
Input Voltage Power consumption	≤ 0.5VA
Shunt	75/45/60mV
Input Current Power consumption	≤ 0.1VA
Shunt primary	1- 2000A
Pulse Output	1,10,100,1000imp/kWh
Pulse Duration	60, 100, 200ms
Display	LCD
Max. Reading	999999.9kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transientsAC (Aux. Power Supply)	4kV
Surge (Aux. Power Supply)	4kV
Radiated & conducted emissions	IEC61326-1

Housing	
Altitude	2000m
Connections	Screw terminals
Mounting	Snap-on 35mm rail
Housing material	Self-extinguishing UL94 V-0

Accuracy	
Voltage	0.5%
Current	0.5%
Active energy	1%
Power	1%

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600/19200(optional)bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Stop bit	1 or 2
Response time	≤100mS

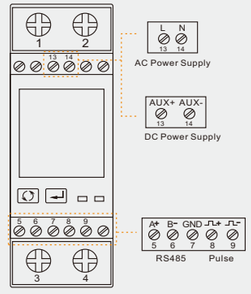
Auxiliary power supply	
AC Aux. Power Supply	85-276V AC
Power Consumption	≤1W/5VA
DC Aux. Power Supply	9-40V DC
Power Consumption	≤1W

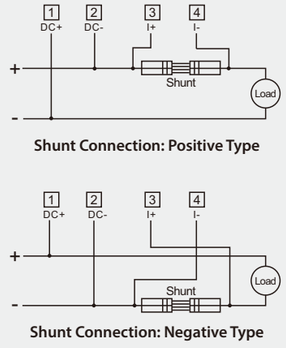
Multi-tariff	
Tariffs	4
Time segments	8
Clock error	<0.5s per day

Terminals Capacity	
RS485/Pulse/Aux. supply	0.5-1.5mm^2
Load	4-25mm^2

Screw Torque	
RS485/Pulse/Aux. supply	0.4Nm
Load	3Nm

Wiring diagram

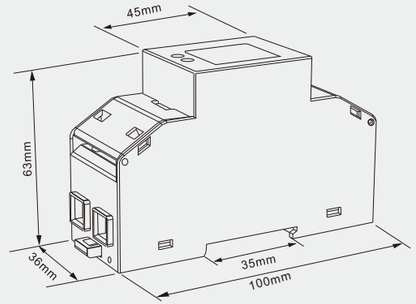




Shunt Connection: Positive Type

Shunt Connection: Negative Type

Dimensions



Height 100mm
Width 36mm
Depth 63mm

DCM232

DOUBLE CHANNELS DC ENERGY METER

- 4 Modules 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
- Multi-tariff (RTC)

Introduction

Eastron DCM232 series DC energy meters are designed for measuring and monitoring in DC systems, esp for the DC EV chargers with 2 output interfaces. 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.

DCM232—1—1—1—1

- Power Supply
  - 1: 85~276V AC
  - 2: 9~60V DC
- Max. Voltage
  - 1: 1000V DC
  - 2: 600V DC
  - 3: 300V DC
- Shunt
  - 1: 75mV
  - 2: 60mV
  - 3: 45mV
- Tariff
  - 1: single tariff
  - 4: multi-tariff

Specification	
Input Voltage Range	5-1000V DC / 5-600V DC / 5-300V DC
Input Voltage Power consumption	≤ 0.5VA
Shunt	75/45/60mV
Input Current Power consumption	≤ 0.1VA
Shunt primary	1- 2000A
Pulse Output	1,10,100,1000,10000imp/kWh
Pulse Duration	60, 100, 200ms
Display	LCD
Max. Reading	999999.9kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients(AC Aux. Power Supply)	4kV
Surge(AC Aux. Power Supply)	4kV
Radiated & conducted emissions	IEC61326-1

Housing	
Altitude	2000m
Connections	Screw terminals
Mounting	Snap-on 35mm rail
Housing material	Self-extinguishing UL94 V-0

Accuracy	
Voltage	0.5%
Current	0.5%
Active energy	1%
Power	1%

Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600/19200(optional)bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Stop bit	1 or 2
Response time	≤100mS

Auxiliary power supply	
AC Aux. Power Supply	85-276V AC
Power Consumption	≤1W/5VA
DC Aux. Power Supply	9-60V DC
Power Consumption	≤1W

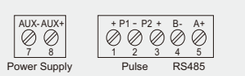
Multi-tariff	
Tariffs	4
Time segments	8
Clock error	<0.5s per day

Terminals Capacity	
RS485/Pulse/Aux. supply	0.5-1.5mm²
Load	4-25mm²

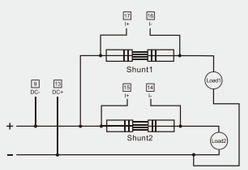
Screw Torque	
RS485/Pulse/Aux. supply	0.4Nm
Load	3Nm

Wiring diagram

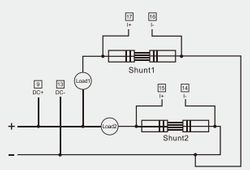
AC Power Supply:85~300V AC(DCM232-1)



DC Power Supply:9~60V DC(DCM232-2)

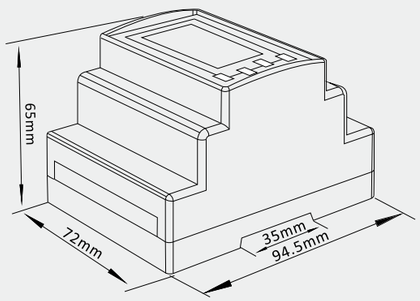


Shunt Connection: Positive Type



Shunt Connection: Negative Type

Dimensions



Height 94.5mm
Width 72mm
Depth 65mm

SDM230-LoRa

SDM630MCT-LoRa

SDM530-LoRa

Introduction

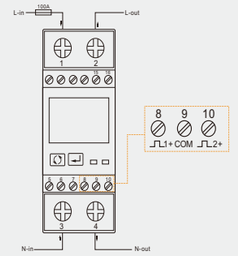
LoRa stands for Long Range Radio. It is the wireless technology mainly targeted for M2M and IoT networks.
Eatron's LoraWAN Series are equipped with a built-in LoraWAN module, which allows long range wireless communication. These series could measure and display the characteristics of single phase two 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.

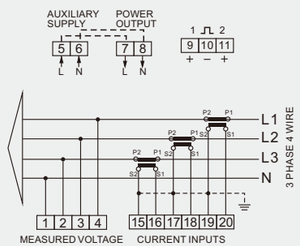
Features:

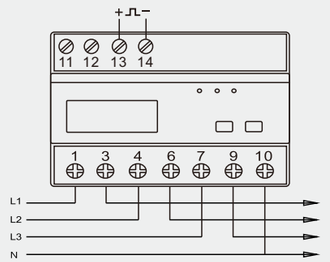
- High accuracy, Class 1/ Class 0.5S
- MID Approved (SDM230-Lora & SDM630MCT-Lora)
- ETL Approved (SDM630MCT-Lora)
- Built-in relay for remote control
- Comfirmations / Offline detection available
- Long range wireless communication, saveing cost on wiring
- Built-in LoRa module, compliant with multiple gateway & server suppliers.
- Mulit-parameters measurement. Data can be actively uploaded to the LoRa Network Server in configurable interval.
- Support wide range of LoRa frequency bands, meet the requirements from different regions. (EU868/AS923/CN433/CN470/AU915/US902 MHz, etc.)

Specification			
Model	SDM230-Lora	SDM630MCT-Lora	SDM530-Lora
Nominal voltage(Un)	230 V~	230 V~ (L-N)/400 V~ (L-L)	230 V~ (L-N)/400 V~ (L-L)
Operational voltage	80%~120% of Un		
AC voltage withstand	4kV for 1 minute		
Impulse voltage withstand	6kV - 1.2/50uS		
Basic current(Ib)	10A	1/5A	5A
Operational current range	0.04A-100A	0.01A-6A	0.25A-100A
Over current withstand	30 Imax for 0.01s	20 Imax for 0.5s	30 Imax for 0.01s
Operational frequency rang	50/60Hz		
Self consumption	≤2W/10VA	≤2W/10VA per phase	≤2W/10VA per phase
Pulse output 1	configurable	configurable	configurable
Pulse output 2	1000imp/kWh	3200imp/kWh	1000imp/kWh
Communication	LoRaWAN		
Comm. frequency	Can be customized to EU868, AU915, AS923, US915 etc.		
Maximum reading	99999.99kWh/kVArh	9999999.9kWh/kVArh	9999999.9kWh/kVArh
Humidity	Operating: ≤ 90% ; Storage: ≤ 95%		
Temperature	Operating : -25℃ ... +55℃ ; Storage: -40℃ ... +70℃		
Active energy accuracy	Class 1 IEC62053-21		
Protection degree	IP51(indoor)		
Compliance	Safety: IEC/EN 61010-1: 2010, IEC/EN 61010-2-030: 2010; EMC: IEC/EN 61326-1: 2013, IEC/EN 61326-2-3: 2013		
Installation Category	CAT II	CAT III	CAT III

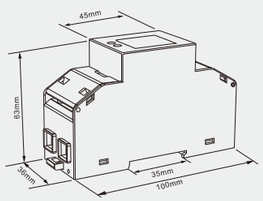
Wiring diagram

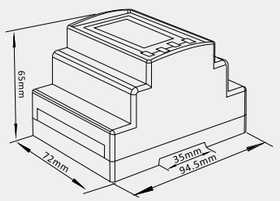


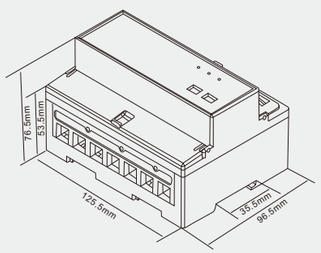




Dimensions







SDM120 A/D/DB

SINGLE PHASE TWO WIRE KWH METER

- 45A Max. direct load
- 1 module wide
- Active energy measured
- Pulse output
- Din rail mounted

SDM 230A/D

SINGLE PHASE TWO WIRE KWH METER

- 100A Max. direct load
- 2 module wide
- Active energy measured
- Pulse output
- Din rail mounted

Specification	
Model	SDM120A/120D/120DB
Display	SDM120A electromechanical register
	SDM120D LCD
	SDM120DB LCD with Backlit
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)	5A
Maximum rated current (Imax)	45A
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 output	1000imp/kWh
Max reading	99999.9 kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

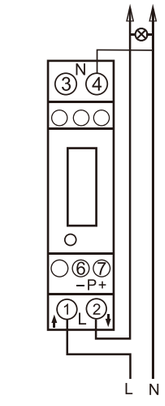
The SDM120 A/D/DB series provide an uni-direction (anti-reverse) measurement model. It would only count the forward energy , and not count the reverse energy.
It is widely used in solar generation energy measurement.

▶ Description

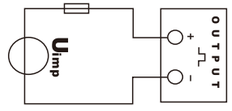
SDM120 —A—1—1

- A: Analog Register, kWh
  D: LCD Display, kWh
  DB: LCD Display with Backlit, kWh
- 1: 110V/120V AC
  2: 220V/230V AC
- 1: MID
  2: Non-MID

▶ Wiring diagrams

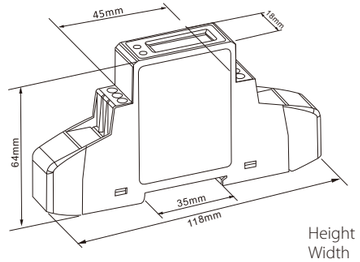


Pulse output



ATTENTION: Pulse output must be fed as shown in the wiring diagram below. Scrupulously respect polarities and the connection mode. Opto -coupler with potential -free SPST-NO Contact.
Contact range:5~27VDC Max. current
Input:27mA DC.

▶ Dimensions



Height 118mm
Width 18mm
Depth 64mm

Specification	
Model	SDM 230A / SDM230D
Display	SDM230A electromechanical register
	SDM230D LCD
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 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output	1000imp/kWh
Max reading	999999.9 kWh(SDM230A)
	99999.9 kWh(SDM230D)

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

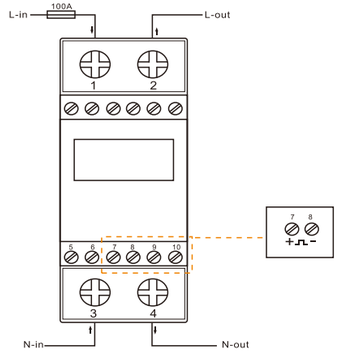
Mechanics	
Din rail dimensions	36x99x63 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

▶ Description

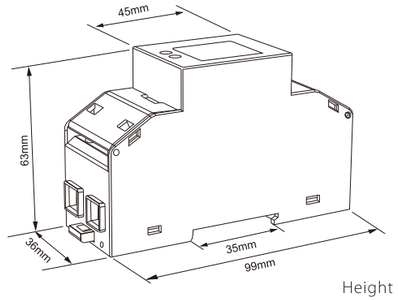
SDM230 —D—1

- A: Analog Register
  D: LCD Display
- 1: 110/120V AC
  2: 220V/230V AC

▶ Wiring diagrams



▶ Dimensions



Height 99mm
Width 36mm
Depth 63mm

SDM 230DR/BI

SINGLE PHASE TWO WIRE KWH METER

- 100A Max. direct load
- Active energy + power measured
- Resettable energy
- Pulse output
- Din rail mounted

Specification	
Model	SDM 230DR / SDM230BI
Display	LCD with Backlit
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 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output 1	1000imp/kWh
Pulse output 2	1000imp/kWh
Max reading	999999.9 kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

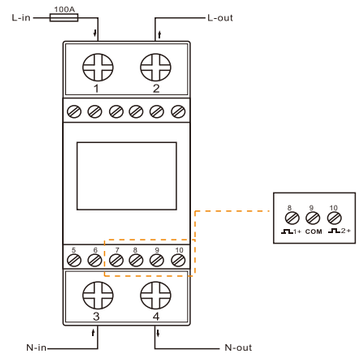
Mechanics	
Din rail dimensions	36x99x63 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

▶ Description Buttons

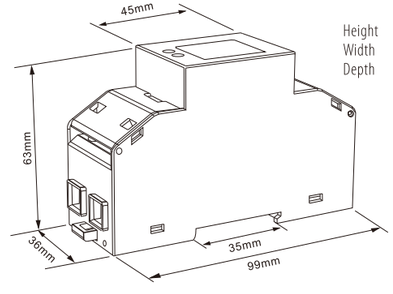
SDM230 —DR—1—1

- DR: kWh + kW, Resettable Energy, Pulse output
- BI: Import/export/total kWh and Power, resettable Energy,Pulse putput
- 1:110/120V
- 2:220/230V
- 1: MID
- 2: Non-MID

▶ Wiring diagrams



▶ Dimensions



Height 99mm
Width 36mm
Depth 63mm

SDM320Y-D

SINGLE PHASE TWO WIRE KWH METER

- 100A Max. direct load
- 4 Module wide
- Active energy measured
- Pulse output
- IEC62053-21 Class 1

Specification	
Model	SDM320Y-D
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)	80A
Operational current range	0.4% Ib-Imax
Over current withstand	30 Imax for 0.01s
Operational frequency range	50 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	99999.99 kWh

Performance criteria	
Operating humidity	≤90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

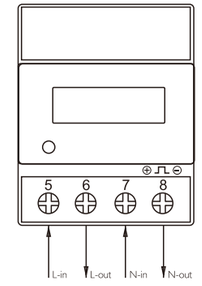
Mechanics	
Din rail dimensions	72x100x66 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

▶ Description

SDM320 —D—1—1

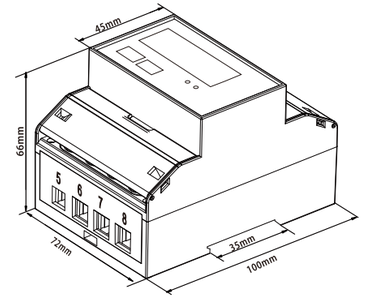
- Y: Analog Register
- D: LCD Display
- 1: Without Backlight
- 2: With Backlight
- 1: 110V/120V AC
- 2: 220V/230V AC

▶ Wiring diagrams



Terminal 5 & 6: L-in/out
Terminal 7 & 8: N-in/out

▶ Dimensions



Height 100mm
Width 72mm
Depth 66mm

SDM320E

SINGLE PHASE THREE WIRE KWH METER

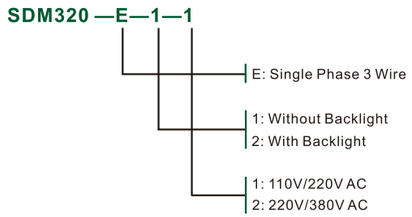
- 100A Max. direct load
- 4 Module wide
- Active energy measured
- Pulse output
- IEC62053-21 Class 1

Specification	
Model	SDM320E
Nominal voltage(Un)	110/220 V ac or 220/380V 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 or 60Hz
Internal power consumption	≤ 2W/10VA
Pulse output	1600imp/kWh
Display	LCD
Max reading	99999.99 kWh

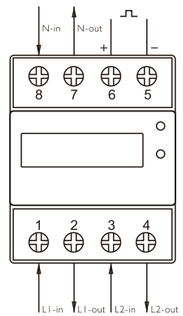
Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT II
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

Mechanics	
Din rail dimensions	76x100x66 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

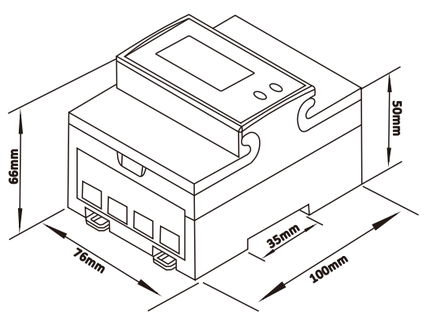
▶ Description



▶ Wiring diagrams



▶ Dimensions



Height	100mm
Width	76mm
Depth	66mm

SDM530D/D-2T

THREE PHASE FOUR WIRE KWH METER

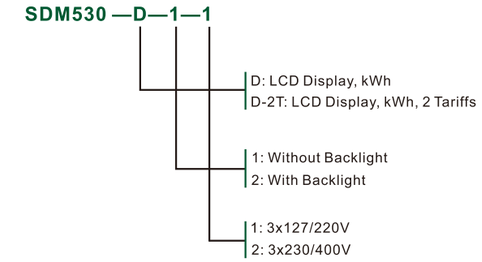
- 100A Max. direct load
- 7 Module wide
- Active energy measured
- IEC62053-21 Class 1
- Pulse output
- 2 Tariffs available (dual power source)

Specification	
Model	SDM530D / SDM530D-2T
Nominal voltage(Un)	3x230/400 V ac or 3x127/220 V 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 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	800imp/kWh
Display	LCD
Max reading	999999.9 kWh

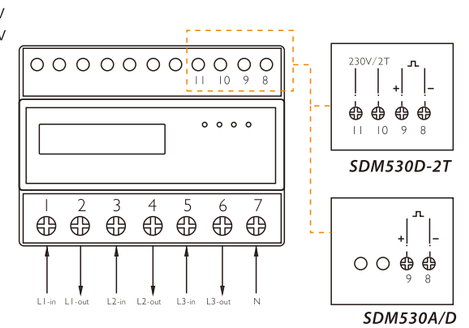
Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

Mechanics	
Din rail dimensions	125x100x65 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

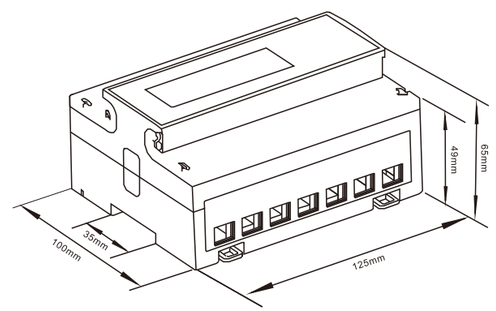
▶ Description



▶ Wiring diagrams



▶ Dimensions



Height	100mm
Width	125mm
Depth	65mm

SDM72D/DR/BI

THREE PHASE FOUR WIRE ENERGY METER

- 100A Max. direct load
- 4 Module wide
- Measures active energy(kWh)+ power(W)
- Bi-directional measurement
- Resettable energy
- Pulse output

SDM72D-M

THREE PHASE FOUR WIRE ENERGY METER

- 100A Max. direct load
- 4 Module wide
- Multi-measurement
- Bi-directional measurement
- Resettable energy
- RS485 Modbus + Pulse output

Specification	
Model	SDM72D/DR/BI
Nominal voltage(Un)	3x230/400 V 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 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	999999.9 kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Altitude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

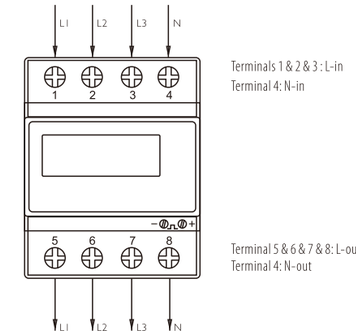
Mechanics	
Din rail dimensions	72x100x66 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

▶ Description

SDM72—D—1—1—B

- D: LCD display, kWh , Pulse output
  DR: "D" + Power measurement and Resettable Energy
  BI: "DR" + Import and export energy
- 1:3x127/220V
  2:3x230/400V
- 1: MID
  2: Non-MID
- B:Class 1
  C: Class 0.5s

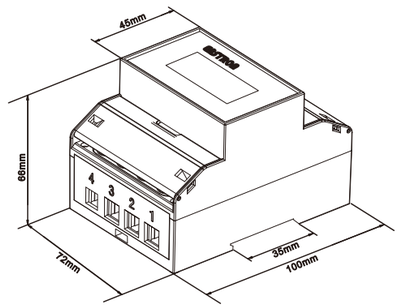
▶ Wiring diagrams



Terminals 1 & 2 & 3 : L-in
Terminal 4: N-in

Terminal 5 & 6 & 7 & 8: L-out
Terminal 4: N-out

▶ Dimensions



Height 100mm
Width 72mm
Depth 66mm

Specification	
Model	SDM72D-M
Nominal voltage(Un)	3x230/400 V 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 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	999999.9 kWh

Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃ or -40℃~+70℃
Storage temperature	-40℃ - +80℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Aititude	up to 2000m
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

Mechanics	
Din rail dimensions	72x100x66 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Sealing	IP51 (indoor)
Material	self-extinguishing UL94V-0

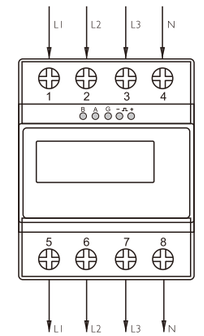
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600/19200bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

▶ Description

SDM72D-M-1-1

- 1: kWh+W, pulse output, RS485 Modbus RTU
  2: Multi-parameters, pulse output, RS485 Modbus RTU
- 1: MID
  2: Non-MID

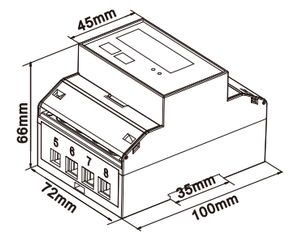
▶ Wiring diagrams



Terminals 1 & 2 & 3 : L-in
Terminal 4: N-in

Terminal 5 & 6 & 7: L-out
Terminal 8: N-out

▶ Dimensions



Height 100mm
Width 72mm
Depth 66mm

SDM72CT-D/DR/BI

THREE PHASE FOUR WIRE ENERGY METER

- CT operated
- 4 Module wide
- Measures active energy(kWh)+ power(W)
- Bi-directional measurement
- Resettable energy
- Pulse output

SDM72CT-M

THREE PHASE FOUR WIRE ENERGY METER

- CT operated
- 4 Module wide
- Multi-measurement
- Bi-directional measurement
- Resettable energy
- RS485+Pulse output

Specification	
Model	SDM72CT-D/DR/BI
Nominal voltage(Un)	3x230/400 V 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)	5A
Maximum rated current (Imax)	6A
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.5s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	999999.9 kWh

Performance criteria	
Operating humidity	≤90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21 / EN50470-1/3
Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

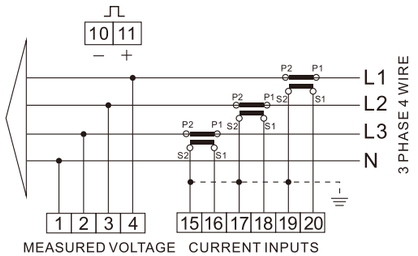
Mechanics	
Din rail dimensions	72x94.5x65 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Material	self-extinguishing UL94V-0

▶ Description

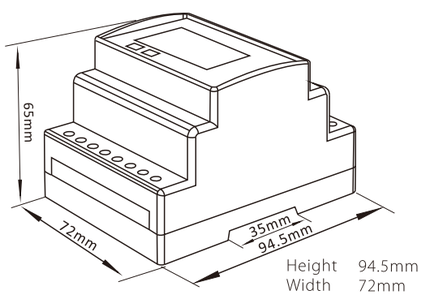
SDM72—CT—D—1—B

- CT: 5A CT operated type
  MV: 100mV CT operated type
- D: LCD display, kWh , Pulse output
  DR: "D" + Power measurement and Resettable Energy
  BI: "DR" + Import and export energy
  M: "BI" + RS485 Modbus RTU
- 1: 3x127/220V
  2: 3x230/400V
- B:Class 1
  C: Class 0.5s

▶ Wiring diagrams



▶ Dimensions



Specification	
Model	SDM72CT-M
Nominal voltage(Un)	3x230/400 V 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)	5A
Maximum rated current (Imax)	6A
Operational current range	0.4% Ib-Imax
Over current withstand	20 Imax for 0.5s
Operational frequency range	50 or 60Hz
Power consumption per phase	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD
Max reading	999999.9 kWh

Performance criteria	
Operating humidity	≤90%
Storage humidity	≤ 95%
Operating temperature	-25℃ - +55℃
Storage temperature	-40℃ - +70℃
Reference temperature	23℃± 2℃
International standard	IEC 62053-21
Accuracy class	Class1
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Protection against penetration of dust and water	IP51(indoor)
Insulating encased meter of protective class	II
Electrostatic discharges	8kV contact / 15kV air gap
Electromagnetic HF fields	IEC 61000-4-3
Electrical fast transients	4kV
Surge	4kV
Radiated & conducted emissions	EN 55022

Mechanics	
Din rail dimensions	72x94.5x65 (WxHxD) DIN 43880
Mounting DIN rail	35mm
Material	self-extinguishing UL94V-0

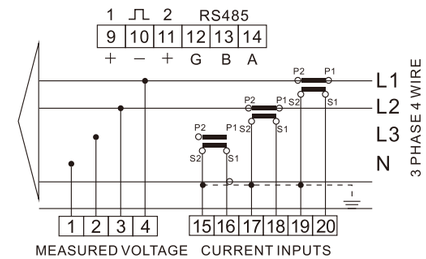
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

▶ Description

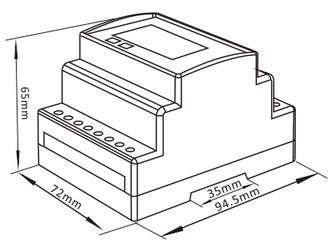
SDM72CT-M-1-1-B

- CT: 5A CT operated type
  MV: 100mV CT operated type
- 1: kWh+W, pulse output, RS485 Modbus RTU
  2: Multi-parameters, pulse outputs, RS485 Modbus RTU
- 1: 3x127/220V
  2: 3x230/400V
- B: Class 1
  C: Class 0.5s

▶ Wiring diagrams



▶ Dimensions



Smart X96 A Series

SMART ENERGY ANALYZER FOR SINGLE AND THREE PHASE SYSTEMS

- Measures kWh, kVarh, kW, kVar, kVa, P, F, PF, Hz, dmd, V, A, etc.
- Bi-directional measurement Imp & Exp
- Energy information of each phase
- Total harmonic distortion of voltage and current
- 2nd~63rd individual harmonic distortion
- RS485 Modbus RTU & 2 pulse outputs
- Bar graph for power indication
- Three phase self-power supply
- Backlit LCD display for full viewing angles
- Accuracy class 0.2s /0.5s /1.0
- Plug-in play solution
- 100mA / 5A CT operated
- Multi-tariffs available(RTC)

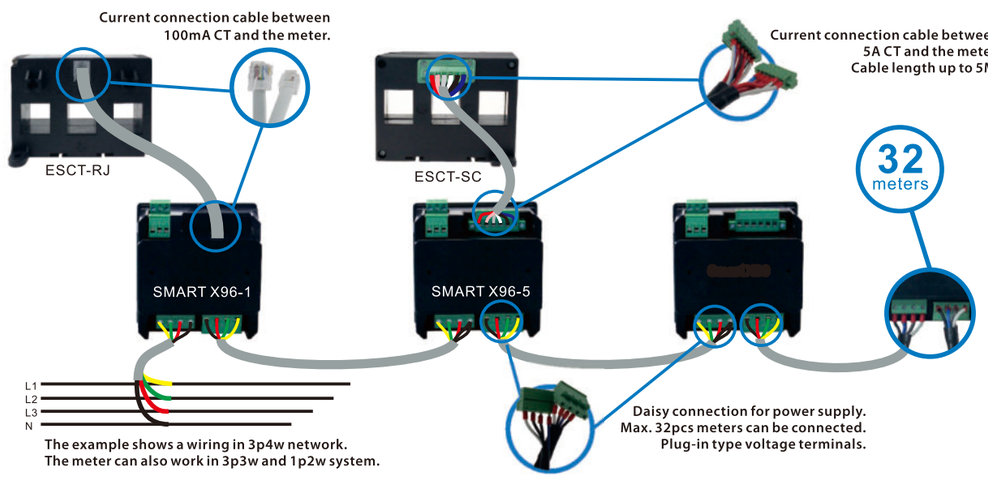
CERTIFIED MID CERTIFIED

Introduction

The Smart X96 digital smart meter from Eastron is an ideal solution for the measurement and displays of all important electrical parameters including harmonic distortion of total and individual, up to 63rd. The meter uses a high definition screen with programmable backlight for high visibility in dark area and from all viewing angles. New sector icons shows the percentage of the power load on 3 phases. Modbus RS485 RTU and 2 pulse outputs are equipped as standard.

The Smart X96 and 3-in-1 current transformers provide a simple and fast installation solutions. With pre-cut wiring looms, the meters and CTs can beeasily connected. This solution reduces lots of wiring and installation time, and saves wrong wiring troubles.

"Plug-in Play Solution"



Input	
Nominal input voltage	57.7-276V AC (L-N) 173-480V AC(L-L)
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2VA per phase
Nominal input current	100mA / 5A
Nom. Input current burden	< 0.1 VA
Max. continuous input overload current	120% of nominal
Over current withstand	20 Imax for 0.5s

Power supply	
Operating range	Self powered (from any of the three phases)
Supply burden	≤ 2W / 10 VA

Accuracy	
Voltage (V)	0.5% of range maximum
Current (A)	0.5% of range maximum
Frequency (Hz)	0.2% of mid-frequency
Power factor (PF)	1% of unity (0.01)
Active power (W)	1.0% of range maximum
Reactive power (VAr)	1.0% of range maximum
Apparent power (VA)	1.0% of range maximum
Active energy (kWh)	Class 0.5S IEC62053-22
	Class 1.0 IEC62053-21
Reactive energy (kVArh)	1.0% of range maximum to IEC 62053-24
THD	2% to 63rd harmonic

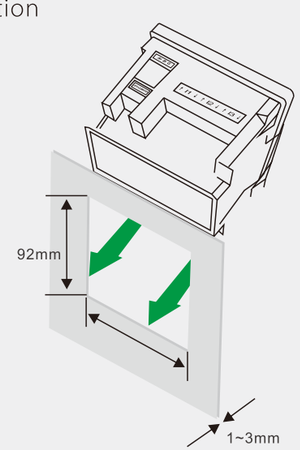
Measured range	
Voltage (V)	15 – 120% of nominal (Min 100V -self powered)
Current (A)	5 – 120% of nominal
Frequency (Hz)	45– 66 Hz
Power (W, VAr, VA)	5 – 120% of nominal (bi-directional)
Energy	8digits, up to 9999999.9 kWh
Power factor	4 quadrants
THD	Up to 63rd harmonic

Environment	
Operating temperature	−25°C to +55°C
Storage temperature	-40°C to +70°C
Relative humidity	0 to 95%, non-condensing
Shock	30g in 3 planes
Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g
Dielectric Voltage	4kV between voltage and current to earth
Altitude	3000m
Warm-up	1 minute

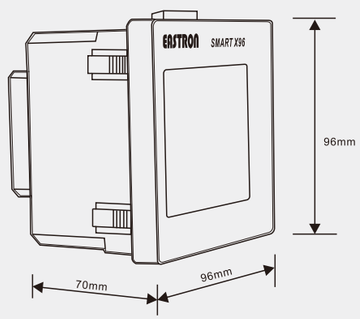
Outputs	
Pulse Width	60 / 100 / 200 ms
Pulse rate of S0 1	0.01 / 0.1 / 1 / 10 / 100 /1000kWh/kVArh
Pulsed output of S0 2 (non-configurable)	3200IMP/kWh
Communications	Modbus RTU (RS485)
Type	2-wire half duplex
Baud rate	2400,4800, 9600, 19200, 38400bps
Address	1 to 247

Enclosure	
Enclosure Style	DIN 96 panel mount
Dimensions	96x96x70mm
Panel cut-out	92x92mm
Panel thickness	1-3 mm
Protection rating	IP51 (Indoor)
Material	UL 94-V0
Weight	420 g
Cable size	0.05mm-4mm stranded wire
Terminals	Voltage: Shrouded screw-clamp

Installation



Dimensions



Height	96mm
Width	96mm
Depth	70mm

Smart X96 F~J Series

SMART ENERGY ANALYZER FOR SINGLE AND THREE PHASE SYSTEMS

- Multi-parameters measurements
- Work with 3P4W, 3P3W(3CT), 3P3W(2CT), 1P2W
- Up to 63rd THD and IHD
- RS485 Modbus RTU
- Ethernet TCP gateway
- Multi-tariffs (RTC)
- Digital input/output
- Accuracy class 0.2s
- Bar graph for power indication
- Backlit LCD display for full viewing angles
- Push-in installation and plug-in connection

Introduction

The multifunction energy analyzer SMART X96 F~J series is a top new-generation intelligent panel meter with built-in interfaces provide RS485 Modbus RTU and Ethernet TCP/IP communication. Digital input and outputs are provided for external signal counting and external device control. 30 types' parameters can be set for alarm. This series is widely used not only in the electricity transmission and power distribution system, but also in the power consumption measurement and analysis in LV/MV Intelligent power grid. The Unit can be used as a gateway for Modbus RTU/TCP.

SMART X96 measures and displays the characteristics of 1p2w, 3p4w and 3p3w supplies, including voltage, frequency, current, power, active and reactive energy, imported or exported, harmonic, power factor, Max. demand etc. Energy is measured in terms of kWh, kVArh and kVAh. Maximum demand current can be measured over preset periods of up to 60 minutes. The Smart X96 can be configured to work with a wide range of CTs and PTs, giving the unit a wide range of operation.

Smart X96 —5—J—2—4—C

- 5:
  - 1: 100mA
  - 2: 100mV
  - 3: 333mV
  - 5: 1A & 5A
- J:
  - F: Basic version
  - G: 4DI + 2DO
  - H: Ethernet TCP Port
  - I : Ethernet Port + 4DI +2DO
  - J : RS485-Ethernet gateway + 4DI +2DO
- 2:
  - 2: Aux. AC power supply
  - 3: Aux. DC power supply
- 4:
  - 1: Single tariff
  - 2: 2 Tariffs
  - 4: 4 Tariffs(RTC)
- C:
  - B: Class 1
  - C: Class 0.5s
  - D: Class 0.2s

Input	
Nominal input voltage	57.7-276V AC (L-N) 173-600V AC(L-L)
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2VA per phase
Nominal input current	5A
Nom. Input current burden	< 0.1 VA
Max. continuous input overload current	120% of nominal
Over current withstand	20 Imax for 0.5s

Auxiliary power supply	
Operating range	85-275V AC/120-380V DC
Power consumption	< 2W/10VA

Accuracy	
Voltage (V)	0.5% of range maximum
Current (A)	0.5% of range maximum
Frequency (Hz)	0.2% of mid-frequency
Power factor (PF)	1% of unity (0.01)
Active power (W)	1.0% of range maximum
Reactive power (VAr)	1.0% of range maximum
Apparent power (VA)	1.0% of range maximum
Active energy (kWh)	Class 0.5S IEC62053-22
	Class 1.0 IEC62053-21
Reactive energy (kVArh)	1.0% of range maximum to IEC 62053-24
THD	2% to 63rd harmonic

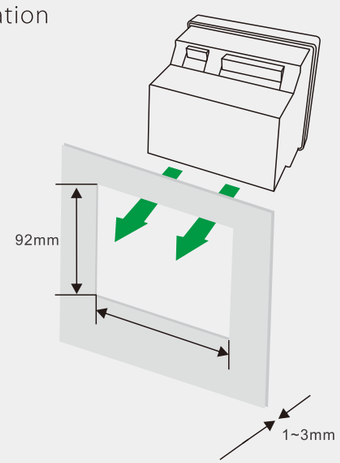
Measured range	
Voltage (V)	15 – 120% of nominal
Current (A)	5 – 120% of nominal
Frequency (Hz)	45– 66 Hz
Power (W, VAr, VA)	5 – 120% of nominal (bi-directional)
Energy	8digits, up to 9999999.9 kWh
Power factor	4 quadrants
THD	Up to 63rd harmonic

Environment	
Operating temperature	−25°C to +55°C
Storage temperature	-40°C to +70°C
Relative humidity	0 to 95%, non-condensing
Shock	30g in 3 planes
Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g
Dielectric Voltage	4kV between voltage and current to earth
Altitude	3000m
Warm-up	1 minute

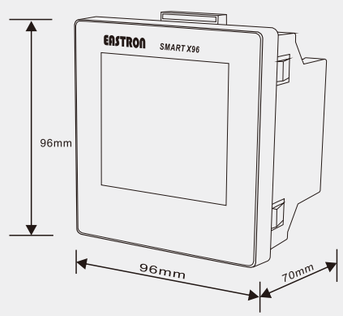
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU/Modbus TCP
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1
Digital Input	4
Digital Output	2

Enclosure	
Enclosure Style	DIN 96 panel mount
Dimensions	96x96x70 mm
Panel cut-out	92x92mm
Panel thickness	1-3 mm
Protection rating	IP51 (Indoor)
Material	UL 94-V0
Weight	420 g
Cable size	0.05mm-4mm stranded wire
Terminals	Voltage: Shrouded screw-clamp.

Installation



Dimensions



Height	96mm
Width	96mm
Depth	70mm

Smart X835 Series

SMART ENERGY ANALYZER FOR SINGLE AND THREE PHASE SYSTEMS

- Multi-parameters measured
- 2nd~63rd individual harmonic distortion
- Support 3p4w, 3p3w, 1p2w system
- CT and PT connected
- Multi tariffs available
- Digital output/ digital input/ analog output / pulse output
- RS485 Modbus communication
- Crest factor & key factor

Introduction

The multifunction energy analyzer SMART X835 series is a new-generation intelligent panel meter, used not only in the electricity transmission and power distribution system, but also in the power consumption measurement and analysis in high voltage intelligent power grid.

The unit measures and displays the characteristics of single phase two wires, three phase three wires and three phase four wires supplies, including voltage, frequency, current, power , active and reactive energy, imported or exported, harmonic, power factor, Max. demand, crest factor and key factor etc. Energy is measured in terms of kWh, kVArh. Maximum demand current can be measured over preset periods of up to 60minutes. In order to measure energy, the unit requires voltage and current inputs to power the product. The requisite current input(s) are obtained via current transformers. The SMART X835 can be configured to work with a wide range of CTs, giving the unit a wide range of operation. Built-in interfaces provide pulse and RS485 Modbus RTU outputs. Configuration is password protected.

Smart X835 —B—1—1—B

- B : RS485 Modbus RTU, 2 Pulse ouptuts
  DIO: 2 Digital Inputs , 2 Digital Outputs, RS485 Modbus RTU
  AO: 2 Analog Outputs , RS485Modbus RTU, 2 Pulse outputs
- 1: Single Tariff
  4: Multi Tariffs
- 2: Aux. AC power supply
  3: Aux. DC power supply
- B:Class 1
  C: Class 0.5s

Input	
Nominal input voltage	57.7 – 276V AC L-N (100-480V L-L)
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2VA per phase
Nominal input current	5A
Nom. Input current burden	< 0.1 VA
Max. continuous input overload current	120% of nominal
Over current withstand	20 Imax for 0.5s
Auxiliary	85-276V AC 50/60Hz or 120-380V DC
Supply burden	< 2W /10 VA

Accuracy	
Voltage (V)	0.5% of range maximum
Current (A)	0.5% of range maximum
Frequency (Hz)	0.2% of mid-frequency
Power factor (PF)	1% of unity (0.01)
Active power (W)	1.0% of range maximum
Reactive power (VAr)	1.0% of range maximum
Apparent power (VA)	1.0% of range maximum
Active energy (kWh)	1.0% of range maximum to IEC 62053-21
Reactive energy (kVArh)	1.0% of range maximum to IEC 62053-24
THD	2% to 63rd harmonic

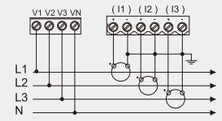
Measured range	
Voltage (V)	15 – 120% of nominal
Current (A)	5 – 120% of nominal
Frequency (Hz)	45 – 66 Hz
Power (W, VAr, VA)	5 – 120% of nominal (bi-directional)
Energy	8 digits, up to 9999999.9 kWh
Power factor	4 quadrants
THD	Upto 63rd harmonic

Environment	
Operating temperature	−25°C to +55°C
Storage temperature	-40°C to +70°C
Relative humidity	0 to 95%, non-condensing
Shock	30g in 3 planes
Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g
Dielectric Voltage	4kV between voltage and current to earth
Altitude	3000m
Warm-up	1 minute

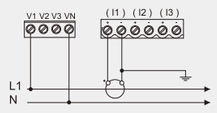
Outputs	
Pulse Width	60 / 100 / 200 ms
Pulse rate of S0 1	0.01 / 0.1 / 1 / 10 / 100 kWh/kVArh
Pulsed output of S0 2 (non-configurable)	3200IMP/kWh
Communications	Modbus RTU (RS485)
Type	2-wire half duplex
Baud rate	2400,4800, 9600, 19200, 38400bps
Address	1 to 247

Enclosure	
Enclosure Style	DIN 96 panel mount
Dimensions	96x96x72 mm
Panel cut-out	92x92mm
Panel thickness	1-3 mm
Protection rating	IP51 (Indoor)
Material	UL 94-V0
Weight	340 g
Cable size	0.05mm-4mm stranded wire

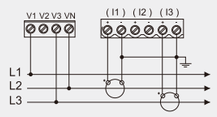
Wiring diagram



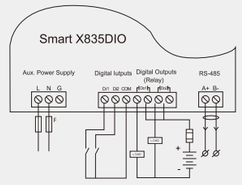
3-phase 4-wire



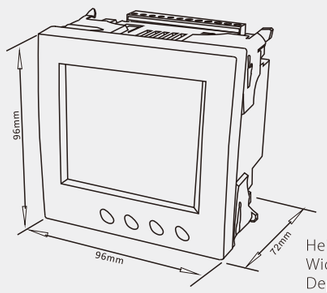
1-phase 2-wire



3-phase 3-wire



Dimensions



Height 96mm
Width 96mm
Depth 72mm

SMART Connect X835

SMART POWER ANALYZER

- Measures kWh, kVarh, kW, kVar, kVA, P, F, PF,Hz, dmd, V, A, etc.
- Bi-directional Measurement IMP & EXP
- Total Harmonic Distortion of Voltage and Current
- RS485 Modbus RTU & Two Pulse Outputs
- Backlit LCD Display
- Plug-in solution

Introduction

The multifunction energy analyzer Smartconnect X835 series are economic solution for three phase intelligent panel meter,They are used not only in the electricity transmission and power distribution system, but also in the power consumption measurement and analysis in high voltage intelligent power grid.

The unit measures and displays the characteristics of single phase two wires, three phase three wires and three phase four wires supplies, including voltage, frequency, current, power , active and reactive energy, imported or exported, THD, power factor, Max. demand etc. The meter provides a RS485 communication port for remote reading and monitoring.

Smartconnect X835 —CT—B

- CT: 5A CT input,Multi Parameters, RS485 Modbus RTU
- MV: 333mV CT input, Multi Parameters, RS485 Modbus RTU
- B: Class 1
- C: Class 0.5s

Input	
Nominal input voltage	57.7-276V AC (L-N) 173-480V AC(L-L)
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2VA per phase
Nominal input current	333mV / 5A
Nom. Input current burden	< 0.1 VA
Max. continuous input overload current	120% of nominal
Max. short duration input current	20 x nominal current for 1 second
Operating range	Self-powered (from any of the three phases)
Supply burden	<2W/10 VA

Accuracy	
Voltage (V)	0.5% of range maximum
Current (A)	0.5% of range maximum
Frequency (Hz)	0.2% of mid-frequency
Power factor (PF)	1% of unity (0.01)
Active power (W)	1.0% of range maximum
Reactive power (VAr)	1.0% of range maximum
Apparent power (VA)	1.0% of range maximum
Active energy (kWh)	1.0% of range maximum to IEC 62053-21
Reactive energy (kVArh)	1.0% of range maximum to IEC 62053-24
THD	2%

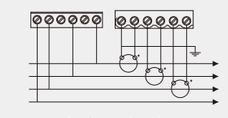
Measured Range	
Voltage (V)	5 – 120% of nominal(Min 100V-self powered)
Current (A)	5 – 120% of nominal
Frequency (Hz)	44 – 66 Hz
Power (W, VAr, VA)	5 – 144% of nominal (bi-directional)
Energy	8 digits, up to 9999999.9 kWh
Power factor	4 quadrants
THD	0 – 40% upto 63rd harmonic

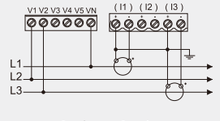
Environment	
Operating temperature	−25°C to +55°C
Storage temperature	-40°C to +70°C
Relative humidity	0 to 95%, non-condensing
Shock	30g in 3 planes
Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g
Dielectric Voltage	4kV between voltage and current to earth
Altitude	3000m
Warm-up	1 minute

Outputs	
Pulse Width	60 / 100 / 200 ms
Pulse rate	0.01 / 0.1 / 1 / 10 / 100 kWh/kVArh
Pulsed output relay (non-configurable)	3200IMP/kWh
Communications	Modbus RTU (RS485)
Type	2-wire half duplex
Baud rate	2400,4800, 9600, 19200, 38400bps
Address	1 to 247

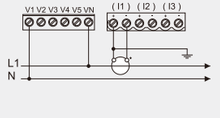
Enclosure	
Enclosure Style	DIN 96 panel mount
Dimensions	96x96x50 mm
Panel cut-out	92x92mm
Protection rating	Front IP54, Rear IP30
Material	UL 94-V0
Weight	300 g
Cable size	0.05mm-4mm stranded wire
Terminals	Voltage: Shrouded screw-clamp.

Wiring diagram

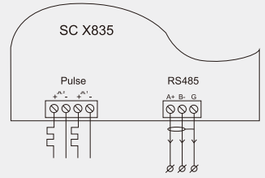

3-phase 4-wire



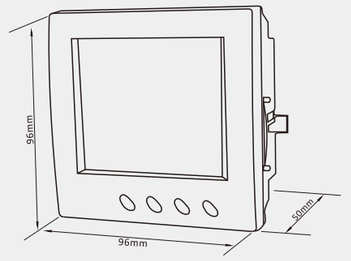
3-phase 3-wire



1-phase 2-wire



Dimensions



Height 96mm
Width 96mm
Depth 50mm

ESP-2000 SERIES

Modbus RTU to Modbus TCP

- Convert Between Modbus TCP and Modbus RTU
- 1 Ethernet port and 1,2,4 RS232/422/485 Ports
- Each RS485 port supports up to 256 nodes
- Support IP/TCP/UDP/DHCP/DNS/HTTP protocols
- Easy Hardware setup

Introduction

ESP-2000 series is a high performance serial device server and Modbus Gateway product designed by Eastron for lightning resistance , anti-eletromagnetic interference and resisting bad environment requirements,which is the flagship product on serial device server.
The Gateway are designed for easy integration of Modbus TCP and RTU networks.With those models,Modbus serial slave devices can be seamlessly incorporated into an existing Modbus TCP network,and Modbus TCP salves can be made accessible to serial masters.
The ESP-2100,ESP-2200,ESP-2400 offer features that make network integration easy,customizable,and compatible with any Modbus network.

Port Number	1 RS232/RS485/RS422
Data Bits	5, 6, 7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 600bps~460800bps
Input Voltage	5~36V DC
Working Current	~200mA
Power	<700mW
Size	94 x 65 x 25 mm

Port Number	2 RS232/RS485/RS422
Data Bits	8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 2400bps~230400bps
Input Voltage	5~36V DC
Working Current	~200mA
Power	<700mW
Size	108 x 146 x 25 mm

Port Number	4 RS232/RS485/RS422
Data Bits	5, 6, 7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 1200bps~460800bps
Input Voltage	9~48V DC
Working Current	~400mA
Power	<4W
Size	197 x 165 x 25 mm

ESP-E11

Modbus RTU to Modbus TCP

- Convert Between Modbus TCP and Modbus RTU
- Each RS485 port supports up to 256 nodes
- Support IP/TCP/UDP/DHCP/DNS/HTTP protocols
- Easy Hardware setup
- Din Rail Mounted
- Mini Size

Introduction

The ESP-E11 provides a RS485 interface to TCP/IP data transfer product. The ESP-E11 integrate TCP/IP controller, memory, 10/100M Ethernet transceiver, RS485 and integrates a fully developed TCP/IP network stack and Free RTOS OS. ESP-E11 also includes an embedded web server used to configure device.The ESP-E11 using highly integrated hardware and software platform, it has been optimized for all kinds of applications in the industrial control, smart grid, personal medical application and remote control that have lower data rates, and transmit or receive data on an infrequent basis.

System Information

Processor/Frequency	Cortex-M3/96MHz
Flash/SDRAM	2MB/128KB
Operating System	FreeRTOS

Ethernet Port

Port Number	1 RS485
Interface Standard	10/100 Base-T Auto-Negotiation
Transformer	Integrated
Network Protocol	1 IP, TCP, UDP, DHCP, DNS, HTTP Server/Client, ARP, AutoIP, ICMP, Telnet, NTP, Modbus TCP
Security Protocol	AES 128Bit / DES3

Serial Port

Port Number	1 RS485
Data Bits	5, 6, 7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 600bps~60800bps

Basic Parameter

Size	97.60 x 64.95 x 27.50mm
Operating Temp	-45°C - +85°C
Storage Temp	-45°C - +105°C, 5~95% RH (no condensation)
Input Voltage	ESP-E11-1:100~40VAC@50~60Hz; ESP-E11-2:9~8VDC@1A
Working Current	~100mA
Power	<400mW

ESP-4104

RS232/422/485 to WIFI

- Convert between RS232/422/485 to WIFI
- Ethernet port available
- Each RS485 port supports up to 256 nodes
- Support Modbus TCP to RTU.
- Support IEEE802.11g/b/n
- Easy hardware setup

Introduction

ESP-4104 is Wifi serial device server designed by Eastron,supporting RS232/422/485 to Wifi.It supports Ethernet and Wifi simultaneous access.The host serial software can self-adapt serial parameter,without setting device serial baudrate.ESP-4104 is a high performance serial device server and Wifi Gateway product designed by for lightning resistance,anti-eletromagnetic interference and resisting bad environment requirements.It provides an easy and wireless integration way of Modbus TCP and RTU networks.With this gateway,Modbus serial slave devices can be seamlessly incorporated into an existing Modbus TCP network,and Modbus TCP salves can be made accessible to serial masters.

System Information

Processor/Frequency	MIPS/320MHz
Flash/SDRAM	4MB/8MB
Operating System	eCos

Wi-Fi Interface

Standard	1 RS485
Frequency	10/100 Base-T Auto-Negotiation
Network Mode	Integrated
Security	WEP/WPAPSK/WPA2PSK
Encryption	WEP64/WEP128/TKIP/ AES
Tx Power	802.11b: +20dBm (Max.) 802.11g: +18dBm (Max.) 802.11n: +15dBm (Max.)
Rx Sensitive	802.11b: -89dBm 802.11g: -81dBm 802.11n: -71dBm
Antenna	3dBi Stick Antenna

Serial Port

Port Number	1 RS485
Data Bits	8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 2400bps~230400bps

Basic Parameter

Size	95 x 65 x 25 mm
Operating Temp	-25°C - +85°C
Storage Temp	-45°C - +105°C, 5~95% RH (no condensation)
Input Voltage	5~36V DC
Working Current	~200mA
Power	<700mW

ESP-W11

RS232/422/485 to WIFI

- Convert between RS232/422/485 to WIFI
- Ethernet port available
- Each RS485 port supports up to 256 nodesols
- Support Modbus TCP to RTU.
- Support IEEE802.11g/b/n
- Easy hardware setup
- Din Rail Mounted
- Mini Size

Introduction

The ESP-W11 provides a RS485 interface to TCP/IP data transfer product.The ESP-W11 integrate TCP/IP controller, memory, Wi-Fi transceiver, RS485 and integrates a fully developed TCP/IP network stack.ESP-W11 also includes an embedded web server used to configure device. The ESP-W11 using highly integrated hardware and software platform,it has been optimized for all kinds of applications in the industrial control, smart grid, personal medical application and remote control that have lower data rates, and transmit or receive data on an infrequent basis.

System Information

Processor/Frequency	160MHz
Flash/SDRAM	2MB/352KB
Operating System	mbed

Wi-Fi Interface

Standard	IEEE802.11g/b/n
Frequency	2.412GHz-2.484GHz
Network Mode	STA/AP/STA+AP
Security	WEP/WPAPSK/WPA2PSK
Encryption	WEP64/WEP128/TKIP/ AES
Tx Power	802.11b: +18dBm (Max.) 802.11g: +16dBm (Max.) 802.11n: +15dBm (Max.)
Rx Sensitive	802.11b: -89dBm 802.11g: -81dBm 802.11n: -71dBm
Antenna	SMA Interface Antenna

Serial Port

Port Number	1 RS485
Data Bits	7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 300bps~230400bps

Basic Parameter

Size	102.03 x 64.95 x 27.50 mm
Operating Temp	-45°C - +85°C
Storage Temp	-45°C - +105°C, 5~95% RH (no condensation)
Input Voltage	ESP-W11-1:100~40VAC@50~60Hz; ESP-W11-2:9~8VDC@1A
Working Current	~200mA
Power	<700mW

ESP-5307

RS232/RS485 to 2G/3G/4G

- Support RS232/485 to GPRS
- Support RS232/485 to 3G/4G
- Support Modbus TCP to RTU

Introduction

ESP-5307 is a 4G solution for serial device networking.Data transmission via 2G/3G/4G makes product integration very easy. It supports LTE-TDD,LTE-FDD,WCDMA,TD-SCDMA and GPRS.This product meets EMC Class B security level and can pass relevant certification tests in various countries.

System Information

Processor/Frequency	Cortex-M3/96MHz
Operating System	FreeRTOS

2G/3G/4G Interface

LTE	Support 1.4~20MHz RF Bandwidth Downstream Support Multiple Users MIMO
WCDMA	3GPP R8 DC-HSPA+16-QAM, 64-QAM and QPSK Modulation
TD-SCDMA	CCSA Relese 3
GSM/GPRS	R99: CSD Transmission Rate: 9.6Kbps/14.4Kbps GPRS: Support GPRS multi-slot class 12 Code Method: S-1/CS-2/CS-3/CS-4

Serial Port

Port Number	1 RS485
Data Bits	7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 1200bps~460800bps

Basic Parameter

SIM Card	Standard SIM card(1.8V/3V)
Size	95 x 65 x 25mm
Operating Temp	-40°C - +70°C
Storage Temp	-45°C - +105°C, 5~95% RH (no condensation)
Input Voltage	9~36V DC
Working Current	~80mA@12V

ESP-G41

RS232/RS485 to 2G/3G/4G

- Support RS232/485 to GPRS
- Support RS232/485 to 3G/4G
- Support Modbus TCP to RTU
- Din Rail Mounted
- Mini Size

Introduction

ESP-G41 is a cellular network solution for serial device networking.Data transmission via cellular network makes product integration very easy.4G network support maximum download data rate 150Mbps, upload data rate 50Mbps.This product meets EMC Class B security level and can pass relevant certification tests in various countries.
The ESP-G41 module support TCP/IP protocol, with its RS232/RS485 interface, it make traditional UART device easy connecting to IOT.

System Information

Processor/Frequency	Cortex-M3/96MHz
Operating System	FreeRTOS

2G/3G/4G Interface

LTE	Maximum Support non-CA CAT4 Support 1.4~20MHz RF Bandwidth Downstream Support Multiple Users MIMO
WCDMA	3GPP R8 DC-HSPA+16-QAM, 64-QAM and QPSK Modulation
TD-SCDMA	CCSA Relese 3
GSM/GPRS	R99: CSD Transmission Rate: 9.6Kbps/14.4Kbps cellular network: Support cellular network multi-slot class 12 Code Method: CS-1/CS-2/CS-3/CS-4

Serial Port

Port Number	1 RS485
Data Bits	7, 8
Stop Bit	1, 2
Check Bit	None, Even, Odd
Baud Rate	TTL: 1200bps~460800bps

Basic Parameter

SIM Card	Nano SIM card(1.8V/3V)
Size	102.03 x 64.95 x 27.50 mm
Operating Temp	-40°C - +85°C
Storage Temp	-45°C - +105°C, 5~95% RH (no condensation)
Input Voltage	ESP-G41-H:100~240VAC@50~60Hz; ESP-G41-M:9~48VDC@1A
Working Current	~200mA

ESP-65

LoRaWAN to Ethernet /WIFI

- Support connection with more than 2000 nodes
- Support LoRaWAN to Ethernet
- Support LoRaWAN to WIFI

Introduction

ESCT-UG65 is a robust 8-channel indoor LoRaWAN® gateway. Adopting SX1302 LoRachip and high-performance quad-core CPU, ESCT-UG65 supports connection with more than 2000 nodes. ESCT-UG65 has line of sight up to 10km and can cover about 2km in urbanized environment, which is ideally suited to smart office, smart building and many other indoor applications.
ESCT-UG65 supports not only multiple back-haul backups with Ethernet, Wi-Fi and cellular,but also has integrated mainstream network servers (such as TTN, ChirpStack, etc.) and built-in network server and IoT Cloud for easy deployment.

LoRaWAN

Antenna	2xInternal Antennas (Optional: 1x50 Ω N-Female External Connector)
Channel	8 (Half/Full-duplex)
Frequency Band	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923/AS923-2
Sensitivity	-140dBm Sensitivity @292bps
Output Power	27dBm Max
Protocol	V1.0 Class A/Class C and V1.0.2 Class A/Class C

Ethernet Interface

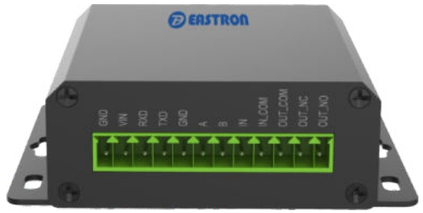
Port	1xRJ45 (PoE PD supported)
Physical Layer	10/100/1000 Base-T (IEEE 802.3)
Data Rate	10/100/1000 Mbps (Auto-Sensing)
Interface	Auto MDI/MDIX
Mode	Full or Half Duplex (Auto-Sensing)

Wi-Fi Interface

Antenna	Internal Antenna
Standards	IEEE 802.11 b/g/n, 2.4GHz
Mode	AP or Client mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption

Basic Parameter

Power Input	1. DC Jack Connector for 9-24 VDC power supply Others 2. 1x802.3 af PoE input
Size	180 x 110 x 56.5 mm
Operating Temp	-40°C - +70°C, Reduced Cellular Performance Above 60°C
Storage Temp	-40°C - +85°C
Ethernet Isolation	1.5 kV RMS
Relative Humidity	0% to 95% (non-condensing) at 25°C/77°F



ESP-1152

LoRa Convertor

- Support RS232/485 to LoRaWAN
- Support work with IoT Cloud

Introduction

Eastron ESP-1152 is designed as a cost-effective industrial machine monitoring device that monitors and controls up to 1 Rs485,1 RS232,1 DC signal and 1 drivable relay output.With the aid of Eastron ESP-1152,the alarm condition brings attention to engineering personnel immediately.The output can be connected with an alarm indication device,such as a light or horn.The module can give immediate response to the status of both the input and output conditions.
A LoRa module is embedded in the Eastron ESCT-UC1152 .

Wireless Transmission

Technology	LoRaWAN®
Antenna Connector	1x50 Ω SMA Connectors (Center PIN: SMA Female)
Frequency	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class C

Data Interfaces

Interface Type	3.5mm Terminal Block
Digital Input	Opto-isolated Digital Inputs, 3-24VDC (pulse counter support)
Digital Output	SPDT Relay Contact Rating: 3A@DC Max: 30 V or AC Max: 250 V
Serial Port	RS232/RS485
Baud Rate	4800~115200bps(RS232)/1200~115200 bps(RS485)
Protocol	Transparent (Rs232), Modbus RTU (RS485)

Others

Configuration Port	1xMicro USB
LED Indicators	1 x System, 1x ACT
Built-in	Watchdog, Timer

Basic Parameter

Power Connector	3.5mm Terminal Block
Power Supply	5-24 VDC
Ingress Protection	IP30
Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Relative Humidity	0% to 95% (non-condensing) at 25°C/77°F
Dimensions	79x60 x24 mm (3.11x2.36 x0.94 in)

ESCT-T Series

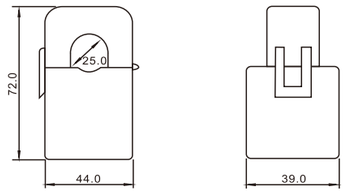
SPLIT CORE CURRENT TRANSFORMER

- Split Core,easy installation
- Primary input 100A~600A
- Secondary output 5A / 1A
- Safe operation
- Standard: IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

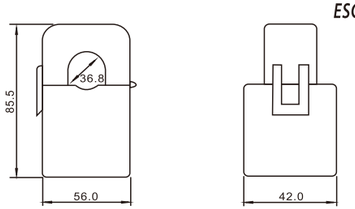
Specification	
Frequency	50Hz-60Hz
Rated current	100A to 600A loads
Rated output	1A / 5A (AC)
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	Less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV/1mA/1min
Operating temperature	-15°C to +75°C.
Operating humidity	<85%
Case material	PC / UL94-V0
Bobbin	PBT
Core	Permalloy
Internal structure	Epoxy

Model	Ratio (A)	Burden (VA)	
		Class:0.5	Class:1.0
ESCT-T24-1	100/1	-	1.5
ESCT-T24-1	150/1	-	1.5
ESCT-T24-1	200/1	1.5	2.5
ESCT-T24-1	250/1	1.5	2.5
ESCT-T24-1	300/1	1.5	2.5
ESCT-T36-1	100/1	-	1.5
ESCT-T36-1	150/1	-	1.5
ESCT-T36-1	200/1	1.5	2.5
ESCT-T36-1	300/1	1.5	2.5
ESCT-T36-1	400/1	1.5	2.5
ESCT-T36-1	500/1	2.5	3.75
ESCT-T36-1	600/1	2.5	5
ESCT-T24-5	100/5	-	1.5
ESCT-T24-5	150/5	-	1.5
ESCT-T24-5	200/5	1.5	2.5
ESCT-T24-5	250/5	1.5	2.5
ESCT-T24-5	300/5	1.5	2.5
ESCT-T36-5	100/5	-	1.5
ESCT-T36-5	150/5	-	1.5
ESCT-T36-5	200/5	1.5	2.5
ESCT-T36-5	300/5	1.5	2.5
ESCT-T36-5	400/5	1.5	2.5
ESCT-T36-5	500/5	2.5	3.75
ESCT-T36-5	600/5	2.5	5

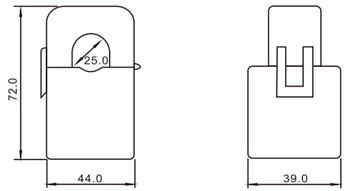
▶ Dimensions(Unit: mm)



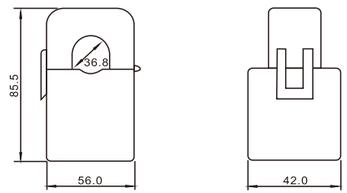
ESCT-T24-1



ESCT-T36-1



ESCT-T24-5



ESCT-T36-5

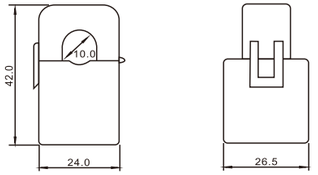
ESCT-TU Series

MINI SPLIT CORE CURRENT TRANSFORMER

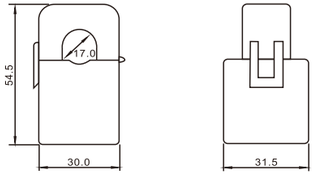
- Split Core,easy installation
- Primary input 5A~600A
- Secondary output 333mV / 100mV / 100mA/40mA
- Safe operation
- Standard: IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

Specification	
Frequency	50Hz-60Hz
Rated current	5A to 600A loads
Rated output	333mV/100mV/100mA/40mA (AC)
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV/1mA/1min
Operating temperature	-15°C to +75°C
Operating humidity	<85%
Case material	PC / UL94-V0
Bobbin	PBT
Core	Permalloy
Internal structure	Epoxy
Leads	UL 1015,Twisted Pair, 22AWG

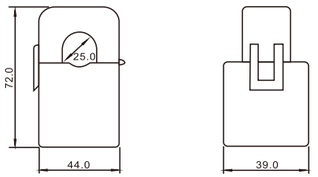
▶ Dimensions(Unit: mm)



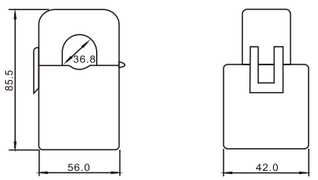
ESCT-TU10



ESCT-TU16



ESCT-TU24



ESCT-TU36

Model	Rated Amps (A)	Output	Accuracy
ESCT-TU10	5	333mV/100mV	0.5 or 1
ESCT-TU10	10	333mV/100mV	0.5 or 1
ESCT-TU10	20	333mV/100mV	0.5 or 1
ESCT-TU10	50	333mV/100mV	0.5 or 1
ESCT-TU10	75	333mV/100mV	0.5 or 1
ESCT-TU10	5	100mA/40mA	0.5 or 1
ESCT-TU10	10	100mA/40mA	0.5 or 1
ESCT-TU10	20	100mA/40mA	0.5 or 1
ESCT-TU10	50	100mA/40mA	0.5 or 1
ESCT-TU10	75	100mA/40mA	0.5 or 1
ESCT-TU16	5	333mV/100mV	0.5 or 1
ESCT-TU16	10	333mV/100mV	0.5 or 1
ESCT-TU16	50	333mV/100mV	0.5 or 1
ESCT-TU16	100	333mV/100mV	0.5 or 1
ESCT-TU16	150	333mV/100mV	0.5 or 1
ESCT-TU16	5	100mA/40mA	0.5 or 1
ESCT-TU16	10	100mA/40mA	0.5 or 1
ESCT-TU16	50	100mA/40mA	0.5 or 1
ESCT-TU16	100	100mA/40mA	0.5 or 1
ESCT-TU16	150	100mA/40mA	0.5 or 1
ESCT-TU24	10	333mV/100mV	0.5 or 1
ESCT-TU24	50	333mV/100mV	0.5 or 1
ESCT-TU24	100	333mV/100mV	0.5 or 1
ESCT-TU24	250	333mV/100mV	0.5 or 1
ESCT-TU24	300	333mV/100mV	0.5 or 1
ESCT-TU24	10	100mA/40mA	0.5 or 1
ESCT-TU24	50	100mA/40mA	0.5 or 1
ESCT-TU24	100	100mA/40mA	0.5 or 1
ESCT-TU24	250	100mA/40mA	0.5 or 1
ESCT-TU24	300	100mA/40mA	0.5 or 1
ESCT-TU36	20	333mV/100mV	0.5 or 1
ESCT-TU36	100	333mV/100mV	0.5 or 1
ESCT-TU36	250	333mV/100mV	0.5 or 1
ESCT-TU36	400	333mV/100mV	0.5 or 1
ESCT-TU36	600	333mV/100mV	0.5 or 1
ESCT-TU36	20	100mA/40mA	0.5 or 1
ESCT-TU36	100	100mA/40mA	0.5 or 1
ESCT-TU36	250	100mA/40mA	0.5 or 1
ESCT-TU36	400	100mA/40mA	0.5 or 1
ESCT-TU36	600	100mA/40mA	0.5 or 1

ESCT-U Series

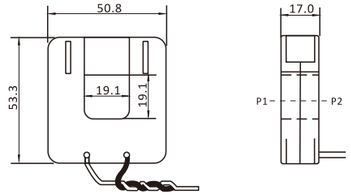
SPLIT CORE CURRENT TRANSFORMER

- Split Core,easy installation
- Primary input 5A~3000A
- 100mA/100mV/333mV
- Wide inner window, allowing clamping of big cables
- Standard: IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

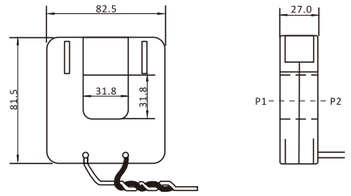
Specification	
Frequency	50Hz-60Hz
Rated current	5A to 3000A loads
Rated output	100mA/100mV/333mV (AC)
Accuracy	±1% from 20% to 120% of rated current
Phase angle	less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV/1mA/1min
Operating temperature	-15℃ to +75℃
Operating humidity	<85%
Case material	PC / UL94-V0
Bobbin	PBT
Core	Permalloy
Internal structure	Epoxy
Leads	UL 1015,Twisted Pair, 22AWG

Model	Rated Amps (A)	Output	Accuracy
ESCT-U75	5	100mA/100mV/333mV	0.5 or1
ESCT-U75	10	100mA/100mV/333mV	0.5 or1
ESCT-U75	50	100mA/100mV/333mV	0.5 or1
ESCT-U75	75	100mA/100mV/333mV	0.5 or1
ESCT-U75	100	100mA/100mV/333mV	0.5 or1
ESCT-U75	125	100mA/100mV/333mV	0.5 or1
ESCT-U75	150	100mA/100mV/333mV	0.5 or1
ESCT-U75	200	100mA/100mV/333mV	0.5 or1
ESCT-U125	50	100mA/100mV/333mV	0.5 or1
ESCT-U125	100	100mA/100mV/333mV	0.5 or1
ESCT-U125	200	100mA/100mV/333mV	0.5 or 1
ESCT-U125	250	100mA/100mV/333mV	0.5 or 1
ESCT-U125	400	100mA/100mV/333mV	0.5 or1
ESCT-U125	600	100mA/100mV/333mV	0.5 or1
ESCT-U125	630	100mA/100mV/333mV	0.5 or1
ESCT-U200	100	100mA/100mV/333mV	0.5 or1
ESCT-U200	125	100mA/100mV/333mV	0.5 or1
ESCT-U200	250	100mA/100mV/333mV	0.5 or1
ESCT-U200	400	100mA/100mV/333mV	0.5 or1
ESCT-U200	630	100mA/100mV/333mV	0.5 or1
ESCT-U200	800	100mA/100mV/333mV	0.5 or1
ESCT-U200	1000	100mA/100mV/333mV	0.5 or1
ESCT-U200	2000	100mA/100mV/333mV	0.5 or1
ESCT-U300	400	100mA/100mV/333mV	0.5 or1
ESCT-U300	800	100mA/100mV/333mV	0.5 or1
ESCT-U300	1000	100mA/100mV/333mV	0.5 or1
ESCT-U300	1500	100mA/100mV/333mV	0.5 or1
ESCT-U300	2500	100mA/100mV/333mV	0.5 or1
ESCT-U300	3000	100mA/100mV/333mV	0.5 or1

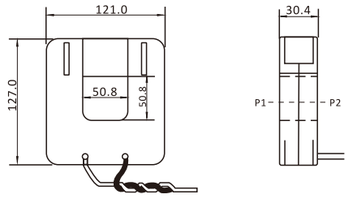
▶ Dimensions(Unit: mm)



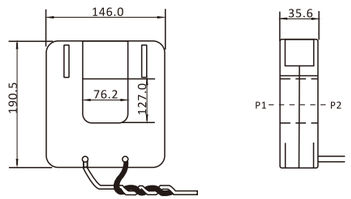
ESCT-U75



ESCT-U125



ESCT-U200



ESCT-U300

ESCT-B Series

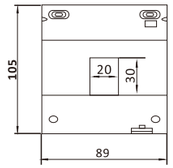
SPLIT CORE CURRENT TRANSFORMER

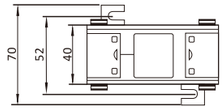
- Split Core
- Primary input 100A~6000A
- Secondary output 5A / 1A
- Two building fixing methods: Base; Busbar mounting
- Wide inner window, allowing clamping of big cables or bus-bars
- Standard: IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

Specification	
Frequency	50Hz-60Hz
Rated current	100A to 6000A loads
Rated output	5A / 1A (AC)
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5 KV / 1 mA / 1 min
Operating temperature	-15℃ to +75℃
Operating humidity	<85%
Case material	PC / UL 94-V0
Bobbin	PBT
Internal structure	Epoxy

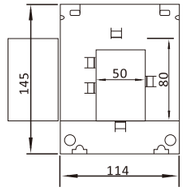
Model	Ratio (A)	Burden (VA)	
		Class:0.5	Class:1.0
ESCT-B23	100/5	1.5	2.5
ESCT-B23	150/5	1.5	2.5
ESCT-B23	200/5	2.5	3.75
ESCT-B23	250/5	2.5	5
ESCT-B23	300/5	5	5
ESCT-B23	400/5	5	5
ESCT-B58	250/5	1.5	2.5
ESCT-B58	300/5	2.5	5
ESCT-B58	400/5	3.75	5
ESCT-B58	500/5	5	7.5
ESCT-B58	600/5	5	7.5
ESCT-B58	750/5	5	10
ESCT-B58	800/5	5	10
ESCT-B58	1000/5	7.5	10
ESCT-B812	500/5	2.5	5
ESCT-B812	600/5	2.5	5
ESCT-B812	750/5	5	10
ESCT-B812	800/5	5	10
ESCT-B812	1000/5	7.5	10
ESCT-B812	1200/5	7.5	10
ESCT-B812	1250/5	7.5	10
ESCT-B812	1500/5	7.5	10
ESCT-B816	1000/5	10	15
ESCT-B816	1500/5	10	15
ESCT-B816	2000/5	15	20
ESCT-B816	2500/5	20	25
ESCT-B816	3000/5	20	30
ESCT-B816	4000/5	20	30
ESCT-B816	5000/5	20	30
ESCT-B816	6000/5	20	30

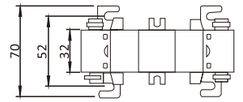
▶ Dimensions(Unit: mm)



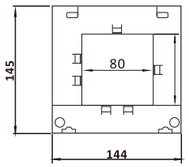


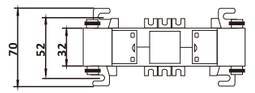
ESCT-B23



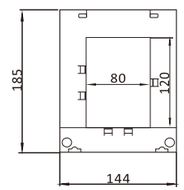


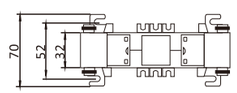
ESCT-B58



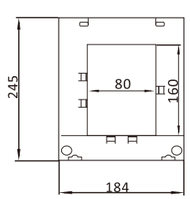


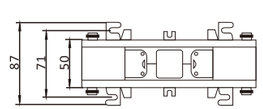
ESCT-B88





ESCT-B812





ESCT-B816

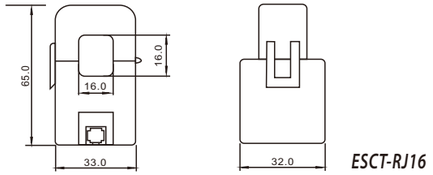
ESCT-RJ-1 Series
SPLIT CORE CURRENT TRANSFORMER

- Split Core,easy installation
- RJ12 socket for quick connection and to eliminate wiring error
- Secondary output 333mV / 100mV / 100mA
- Safe operation
- Standard: IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

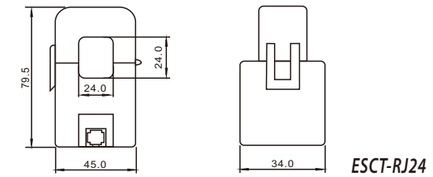
Specification	
Frequency	50Hz-60Hz
Rated current	5A to 1200A loads
Rated output	100mV/100mA / 333mV (AC)
Secondary terminals	RJ12
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	Less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV / 1mA / 1min
Operating temperature	-15℃ to +75℃
Operating humidity	＜85%
Case material	PC / UL 94-V0
Bobbin	PBT
Internal structure	Epoxy
Compliant with	IEC/EN60044/1

Model	Rated Amps (A)	Output	Accuracy
ESCT-RJ16	5	100mA/100mV/333mV	0.5 or 1
ESCT-RJ16	10	100mA/100mV/333mV	0.5 or 1
ESCT-RJ16	50	100mA/100mV/333mV	0.5 or 1
ESCT-RJ16	100	100mA/100mV/333mV	0.5 or 1
ESCT-RJ16	150	100mA/100mV/333mV	0.5 or 1
ESCT-RJ24	10	100mA/100mV/333mV	0.5 or 1
ESCT-RJ24	50	100mA/100mV/333mV	0.5 or 1
ESCT-RJ24	100	100mA/100mV/333mV	0.5 or 1
ESCT-RJ24	250	100mA/100mV/333mV	0.5 or 1
ESCT-RJ24	300	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	20	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	100	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	250	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	400	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	500	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	600	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	700	100mA/100mV/333mV	0.5 or 1
ESCT-RJ36	800	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	200	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	250	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	300	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	400	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	500	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	600	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	700	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	800	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	1000	100mA/100mV/333mV	0.5 or 1
ESCT-RJ50	1200	100mA/100mV/333mV	0.5 or 1

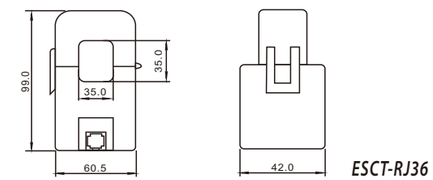
▶ Dimensions(Unit: mm)



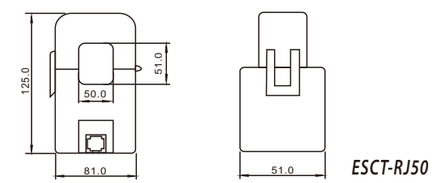
ESCT-RJ16



ESCT-RJ24



ESCT-RJ36



ESCT-RJ50

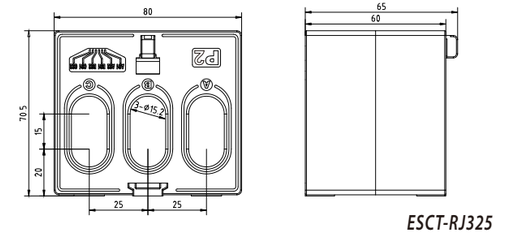
ESCT-RJ-3 Series
3-IN-1 CURRENT TRANSFORMER

- Cost effective three-phase moulded case
- Ratio's ranging from 60A~1200A
- RJ12 socket for quick connection and to eliminate wiring error
- Busbar, DIN-rail and metal feet are supplied as standard

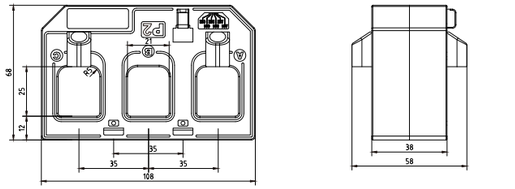
Specification	
Frequency	50Hz-60Hz
Rated current	60A to 1600A loads
Rated output	100mA / 100mV/333mV (AC)
Secondary terminals	RJ12
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	Less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV / 1mA / 1min
Operating temperature	-15℃ to +75℃
Operating humidity	＜85%
Case material	PC / UL 94-V0
Bobbin	PBT
Internal structure	Epoxy
Compliant with	IEC/EN60044/1

Model	Rated Amps (A)	Output	Accuracy
ESCT-RJ325	60	100mV/100mA/333mV	0.5 or 1
ESCT-RJ325	100	100mV/100mA/333mV	0.5 or 1
ESCT-RJ325	120	100mV/100mA/333mV	0.5 or 1
ESCT-RJ325	125	100mV/100mA/333mV	0.5 or 1
ESCT-RJ325	150	100mV/100mA/333mV	0.5 or 1
ESCT-RJ325	160	100mV/100mA/333mV	0.5 or 1
ESCT-RJ325	200	100mV/100mA/333mV	0.5 or 1
ESCT-RJ335	63	100mV/100mA/333mV	0.5 or 1
ESCT-RJ335	125	100mV/100mA/333mV	0.5 or 1
ESCT-RJ335	150	100mV/100mA/333mV	0.5 or 1
ESCT-RJ335	200	100mV/100mA/333mV	0.5 or 1
ESCT-RJ335	250	100mV/100mA/333mV	0.5 or 1
ESCT-RJ345	250	100mV/100mA/333mV	0.5 or 1
ESCT-RJ345	300	100mV/100mA/333mV	0.5 or 1
ESCT-RJ345	400	100mV/100mA/333mV	0.5 or 1
ESCT-RJ345	500	100mV/100mA/333mV	0.5 or 1
ESCT-RJ345	600	100mV/100mA/333mV	0.5 or 1
ESCT-RJ345	630	100mV/100mA/333mV	0.5 or 1
ESCT-RJ370	600	100mV/100mA/333mV	0.5 or 1
ESCT-RJ370	630	100mV/100mA/333mV	0.5 or 1
ESCT-RJ370	800	100mV/100mA/333mV	0.5 or 1
ESCT-RJ370	1200	100mV/100mA/333mV	0.5 or 1

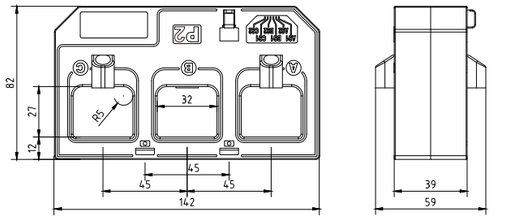
▶Dimensions(Unit: mm)



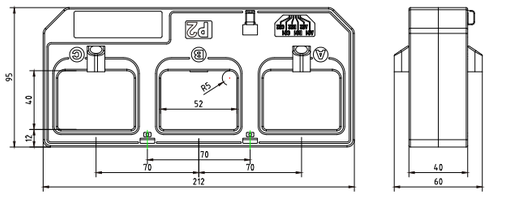
ESCT-RJ325



ESCT-RJ335



ESCT-RJ345



ESCT-RJ370

ESCT-RJ-3 Series

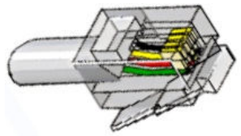
- Split Core,easy installation
- RJ12 socket for quick connection and to eliminate wiring error
- Secondary output 333mV/100mV/1000mA/40mA
- Safe operation
- Standard: IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

Specification	
Frequency	50Hz-60Hz
Rated current	5A to 600A loads
Rated output	333mV/100mV/100mA/40mA (AC)
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV/1mA/1min
Operating temperature	-15℃ to +75℃
Operating humidity	<85%
Case material	PC / UL94-V0
Bobbin	PBT
Core	Permalloy
Internal structure	Epoxy
Leads	UL 1015,Twisted Pair, 22AWG

Model	Rated Amps (A)	Output	Accuracy
ESCT-TU10	5	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU10	10	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU10	20	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU10	50	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU10	80	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU16	10	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU16	50	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU16	100	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU16	120	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU24	10	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU24	50	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU24	100	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU24	250	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU24	400	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU36	20	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU36	100	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU36	250	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU36	400	333mV/100mV/100mA/40mA	0.5/1/3
ESCT-TU36	600	333mV/100mV/100mA/40mA	0.5/1/3

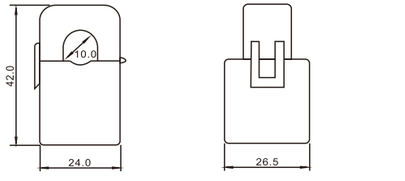
▶ Introduction:

The ESCT-RJ-3 series is three phase current transformer with 3 split core CTs, giving the unit wide range of primary current input and saving labor of installation.The S1 and S2 of each phase are integrated together in same wire leading to RJ12 port.
The definition of the RJ12 port is:

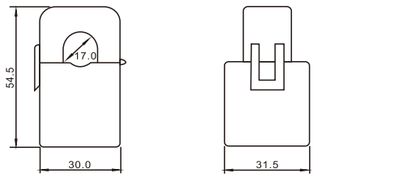


Yellow: I_C -
Red: I_C +
Orange: I_B -
Black I_B +
White: I_A -
Brown: I_A +

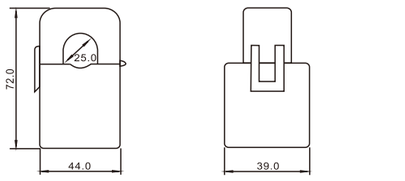
▶ Dimensions (Unit:mm)



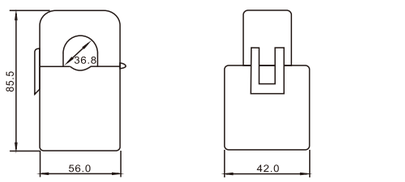
ESCT-RJ10-3



ESCT-RJ16-3



ESCT-RJ24-3



ESCT-RJ36-3

ESCT-P Series

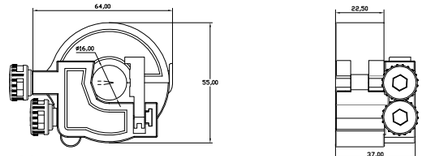
PUNCTURE CURRENT TRANSFORMER

- Split Core,easy installation
- Puncture function
- NTC temperature(Optional)
- Waterproof
- Flexible installation method
- Primary input 5A~1000A

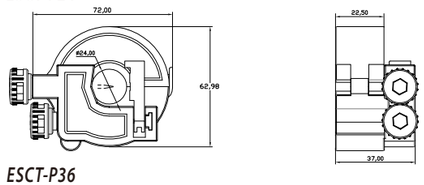
Specification	
Frequency	0.02-2KHz
Max.current input	ESCT-P16: 250A/ESCT-P24: 300A/ESCT-P36: 800A
Current output	100mA/100mV/333mV (AC)
Phase difference of the rated value	ESCT-P16:≤ 50' (100A)
	ESCT-P24:≤ 50' (100A)
	ESCT-P36:≤ 45' (100A)
Linearity	0.3(Ib 1%~Max)
Accuracy	0.50%
Temperature sensor	0℃ to +40℃
Phase difference change	≤15'(Ib 1%~Max)
Isolation withstand voltage	500V/min
Operating temperature	-30℃ ~+75℃
Storage temperature	-40℃~+80℃
Load resistance	≤20(Max.current input)

▶ Dimensions(Unit: mm)

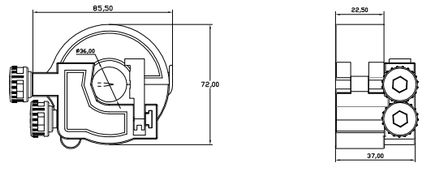
ESCT-P16



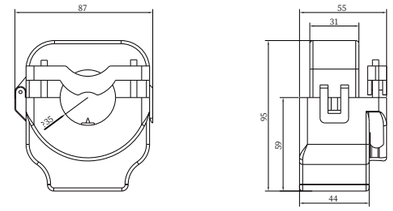
ESCT-P24



ESCT-P36



ESCT-P36W



Model	Rated Amps (A)	Output	Accuracy
ESCT-P16T	5	100mA/100mV/333mV	0.5 or1
ESCT-P16T	63	100mA/100mV/333mV	0.5 or1
ESCT-P16T	100	100mA/100mV/333mV	0.5 or1
ESCT-P16T	160	100mA/100mV/333mV	0.5 or1
ESCT-P16T	250	100mA/100mV/333mV	0.5 or1
ESCT-P24T	100	100mA/100mV/333mV	0.5 or1
ESCT-P24T	200	100mA/100mV/333mV	0.5 or1
ESCT-P24T	250	100mA/100mV/333mV	0.5 or1
ESCT-P24T	300	100mA/100mV/333mV	0.5 or1
ESCT-P24T	400	100mA/100mV/333mV	0.5 or 1
ESCT-P36T	200	100mA/100mV/333mV	0.5 or1
ESCT-P36T	250	100mA/100mV/333mV	0.5 or1
ESCT-P36T	300	100mA/100mV/333mV	0.5 or1
ESCT-P36T	400	100mA/100mV/333mV	0.5 or1
ESCT-P36T	500	100mA/100mV/333mV	0.5 or1
ESCT-P36T	600	100mA/100mV/333mV	0.5 or1
ESCT-P36T	630	100mA/100mV/333mV	0.5 or1
ESCT-P36T	800	100mA/100mV/333mV	0.5 or1
ESCT-P16	5	100mA/100mV/333mV	0.5 or1
ESCT-P16	63	100mA/100mV/333mV	0.5 or1
ESCT-P16	100	100mA/100mV/333mV	0.5 or1
ESCT-P16	160	100mA/100mV/333mV	0.5 or1
ESCT-P16	250	100mA/100mV/333mV	0.5 or1
ESCT-P24	100	100mA/100mV/333mV	0.5 or1
ESCT-P24	200	100mA/100mV/333mV	0.5 or1
ESCT-P24	250	100mA/100mV/333mV	0.5 or1
ESCT-P24	300	100mA/100mV/333mV	0.5 or1
ESCT-P24	400	100mA/100mV/333mV	0.5 or1
ESCT-P36	200	100mA/100mV/333mV	0.5 or1
ESCT-P36	250	100mA/100mV/333mV	0.5 or1
ESCT-P36	300	100mA/100mV/333mV	0.5 or1
ESCT-P36	400	100mA/100mV/333mV	0.5 or1
ESCT-P36	500	100mA/100mV/333mV	0.5 or1
ESCT-P36	600	100mA/100mV/333mV	0.5 or1
ESCT-P36	800	100mA/100mV/333mV	0.5 or1
ESCT-P36W	200	100mA/100mV/333mV	0.5 or1
ESCT-P36W	400	100mA/100mV/333mV	0.5 or1
ESCT-P36W	600	100mA/100mV/333mV	0.5 or1
ESCT-P36W	800	100mA/100mV/333mV	0.5 or1
ESCT-P36W	1000	100mA/100mV/333mV	0.5 or1

ESCT-C Series

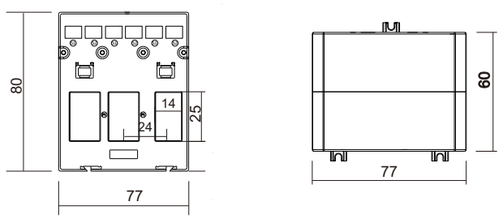
3-IN-1 CURRENT TRANSFORMER

- Cost effective three-phase moulded case
- Ratio's ranging from 60/5 to 630/5
- Integrated wire sealable terminal cover
- Busbar, DIN-rail and metal feet mounting hardware supplied
- Combined M4 posi /slot screw

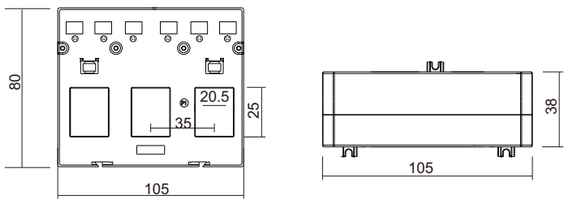
Specification	
Rated current	60A to 630A loads
Rated output	5A (AC)
Accuracy	Class 0.5 or 1 from 20% to 120% of rated current
Phase angle	Less than 2 degrees at 50% of rated current
Insulation voltage	600Vac
Maximum primary voltage	5000Vac (Insulated Conductor)
Dielectric strength	2.5KV / 1 mA / 1 min
Operating temperature	-15°C to +75°C
Operating humidity	<85%
Case material	PC / UL 94-VO
Bobbin	PBT
Internal structure	Epoxy

Model	Ratio (A)	Burden (VA)	
		Class:0.5	Class:1.0
ESCT-C325	60/5	-	1
ESCT-C325	100/5	-	1.5
ESCT-C325	125/5	1.5	1.5
ESCT-C325	150/5	1.5	1.5
ESCT-C325	200/5	1.5	1.5
ESCT-C335	100/5	-	1.5
ESCT-C335	125/5	-	2.5
ESCT-C335	150/5	-	3.75
ESCT-C335	160/5	1.5	1.5
ESCT-C335	200/5	1.5	1.5
ESCT-C335	250/5	1.5	1.5
ESCT-C345	250/5	1.5	1.5
ESCT-C345	300/5	2.5	2.5
ESCT-C345	400/5	2.5	2.5
ESCT-C345	500/5	2.5	2.5
ESCT-C345	600/5	2.5	2.5
ESCT-C345	630/5	2.5	2.5

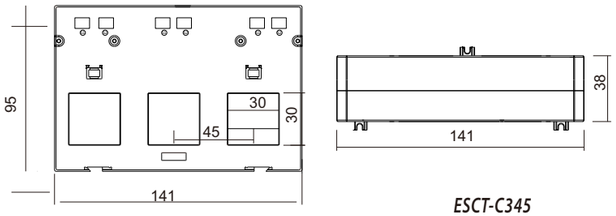
▶ Dimensions(Unit: mm)



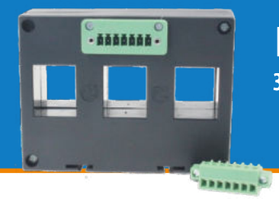
ESCT-C325



ESCT-C335



ESCT-C345



ESCT-SC Series

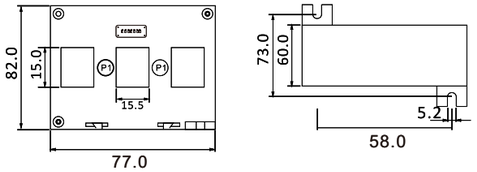
3-IN-1 CURRENT TRANSFORMER

- Cost effective three-phase moulded case
- Ratio's ranging from 60/5 to 630/5
- Plug-in quite connection, 80% labor saving
- Lockable terminal for safety
- Both available for Busbar or DIN Rail mounted

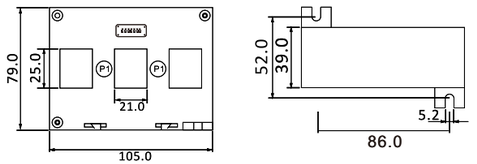
Specification	
System voltage	720V maximum
Test voltage	3kV for 1 minute
System frequency	50Hz or 60Hz
Primary ratings	60A to 630A
Short circuit thermal current	60 x rated primary current
Overload withstand	1.2 x rated current continuously
Rated dynamic current	2.55 x Ith
Secondary terminals	M4 screw terminals
Enclosure	Flame retardant grad classified UL 94V-0
Aperture holes centers	25,35,45mm
Mounting hardware	Plug-in metal feet for wall or base Mounting
	Bus-bar and DIN-rail
Compliant with	IEC/EN60044-1

Model	Ratio (A)	Burden (VA)	
		Class: 0.5	Class:1.0
ESCT-SC325	60/1	_	1
ESCT-SC325	100/1	_	1.5
ESCT-SC325	125/1	1.5	1.5
ESCT-SC325	150/1	1.5	1.5
ESCT-SC325	300/1	1.5	1.5
ESCT-SC335	100/1	-	1.5
ESCT-SC335	125/1	-	1.5
ESCT-SC335	150/1	-	1.5
ESCT-SC335	160/1	1.5	1.5
ESCT-SC335	200/1	1.5	1.5
ESCT-SC335	250/1	1.5	1.5
ESCT-C345	250/1	1.5	1.5
ESCT-C345	300/1	2.5	2.5
ESCT-C345	400/1	2.5	2.5
ESCT-C345	500/1	2.5	2.5
ESCT-C345	600/1	2.5	2.5
ESCT-C345	630/1	2.5	2.5

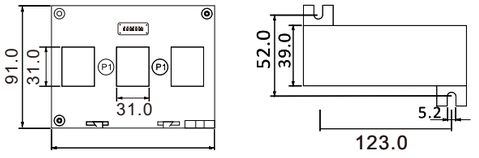
▶ Dimensions(Unit: mm)



ESCT-SC325



ESCT-SC335



ESCT-SC345

ESCT-ABO Series

SOLID CORE CURRENT TRANSFORMER

- Two built in fixing methods: 1 side base; Busbar mounting
- Built in hinged terminal cover
- Built in transparent cover for name plate
- Wide range accuracy (3,1,0.5,0.5s, 0.2,0.2s)
- Primary current from 50A to 3000A

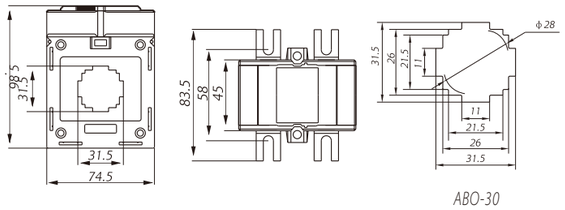
Specification	
Rated Frequency	50Hz-60Hz
Rated current	5A to 3000A loads
Rated output	5A
Accuracy	±1% from 20% to 120% of rated current
Rated short-time thermal current (Ith)	60In
Rated voltage (Um)	1.2 In
Operating temperature	-25℃ to +50℃
Housing self-extinguishing class	V0
Standard	IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

Model	Ratio(A)	Burden (VA)	
		Class:0.5	Class:1.0
ESCT-ABO-30	50/5	1.5	2.5
ESCT-ABO-30	60/5	1.5	2.5
ESCT-ABO-30	75/5	2.5	3.75
ESCT-ABO-30	100/5	3.75	5
ESCT-ABO-30	150/5	5	5
ESCT-ABO-30	200/5	5	5
ESCT-ABO-30	250/5	5	5
ESCT-ABO-30	300/5	5	5
ESCT-ABO-40	75/5	1.5	1.5
ESCT-ABO-40	80/5	1.5	1.5
ESCT-ABO-40	100/5	2.5	2.5
ESCT-ABO-40	150/5	3.75	5
ESCT-ABO-40	200/5	5	5
ESCT-ABO-40	250/5	5	5
ESCT-ABO-40	300/5	5	5
ESCT-ABO-40	400/5	5	5
ESCT-ABO-40	500/5	5	5
ESCT-ABO-60	200/5	5	5
ESCT-ABO-60	250/5	5	5
ESCT-ABO-60	300/5	5	5
ESCT-ABO-60	400/5	5	5
ESCT-ABO-60	500/5	5	5
ESCT-ABO-60	600/5	5	10
ESCT-ABO-60	750/5	5	10
ESCT-ABO-60	800/5	5	10
ESCT-ABO-60	1000/5	5	10
ESCT-ABO-100	800/5	5	10
ESCT-ABO-100	1000/5	5	10
ESCT-ABO-100	1200/5	7.5	10
ESCT-ABO-100	1500/5	7.5	10
ESCT-ABO-100	1600/5	7.5	10
ESCT-ABO-100	2000/5	10	15
ESCT-ABO-100	2500/5	10	15
ESCT-ABO-100	3000/5	10	15

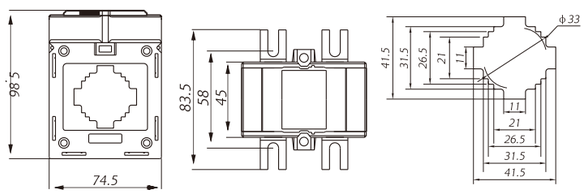
▶ Introduction

ESCT-ABO are perfect designed plastic case current transformer, with advanced snap on body, high accuracy (up to Class 0.2S), humanization transparent cover and lead seal hole design make the CT very easy to identify after long-term use and perfect anti-stealing electricity.

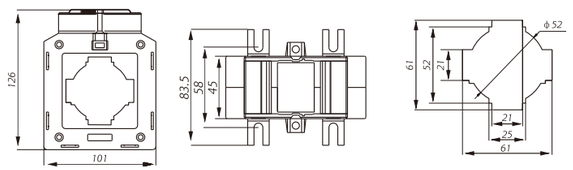
▶ Dimensions(Unit: mm)



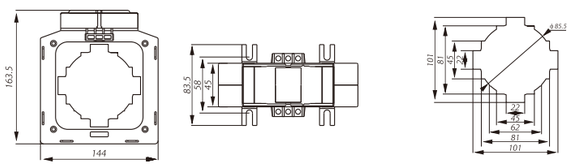
ABO-30



ABO-40



ABO-60



ABO-100

ESCT-DM Series

SOLID CORE CURRENT TRANSFORMER

- Two built in fixing methods: 1 side base; Busbar mounting
- Built in hinged terminal cover
- Primary current from 50A to 300A

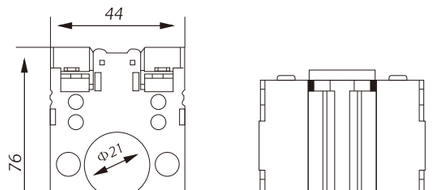
Specification	
Rated Frequency	50Hz-60Hz
Rated current	50A to 300A loads
Rated test voltage	3kV AC (1min)
Rated short-time thermal current (Ith)	60In
Rated voltage (Um)	0.72Kv AC.
Rated output	5A or 1A
Rated voltage (Um)	1.2 In
Operating temperature	-25℃ to +50℃
Housing self-extinguishing class	V0
Safety factor	Fs5
Standard	IEC60044-1, EN60044-1, VDE0414-44-1, GB1208-2006

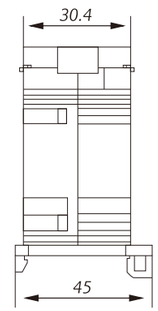
Model	Rated Amps (A)	Burden (VA) / Class 1.0
ESCT-DM-20/30	50/5	1
ESCT-DM-20/30	60/5	1.25
ESCT-DM-20/30	75/5	1.5
ESCT-DM-20/30	80/5	1.5
ESCT-DM-20/30	100/5	2.5
ESCT-DM-20/30	120/5	2.5
ESCT-DM-20/30	150/5	2.5
ESCT-DM-20/30	200/5	3.75
ESCT-DM-20/30	250/5	3.75
ESCT-DM-20/30	300/5	3.75
ESCT-DM-20/35	50/5	-
ESCT-DM-20/35	60/5	-
ESCT-DM-20/35	75/5	1.5
ESCT-DM-20/35	80/5	1.5
ESCT-DM-20/35	100/5	2.5
ESCT-DM-20/35	120/5	2.5
ESCT-DM-20/35	150/5	2.5
ESCT-DM-20/35	200/5	2.5
ESCT-DM-20/35	250/5	3.75
ESCT-DM-20/35	300/5	3.75

▶ Introduction

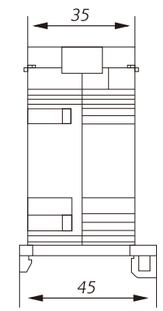
ESCT-DM is world-famous MINI plastic case current transformer, snap on body, widely used in generators. It is available for connecting with cable, and also available for connecting with Busbar. Its primary current is 50A~300A with 5A output.

▶ Dimensions(Unit: mm)





DM-20/30



DM-20/35

ESCT-RC

FLEXIBLE ROGOWSKI COIL CURRENT SENSOR

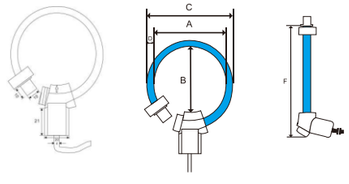
- Flexible and light weights
- Easy & quick installation in tight spaces
- No danger from open-circuited secondary
- No core saturation or damage if overloaded
- Excellent linearity
- Multi- size are available

Specification	
Current range	10A to 100kA
Rated output	85mV/ per 1000A @ 50Hz without integrator 50mV/ per 1000A @ 50Hz without integrator
Accuracy	±1% from 5% to 120% of rated current with integrator(45-65Hz)
Phase angle	≤±1°5% to 120% from 5% to 120% of rated current
Linear	0.5%
Frequency	1Hz-1MHz ,50/60 Hz nominal
Work Voltage	600V
Coil diameter	10.5mm,12mm or as customer order
Window size	16mm,24mm or as per customer ordered
Wire lead	2 meters sheath cable or as customers order
Withstand voltage	3000V
Operating temperature	-30℃-+70℃
IP class	IP65
Certification	CE / RoHS

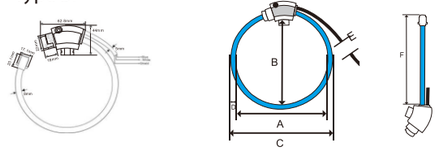
Model	Rated Amps(A)	Class	Coil Length	Window Size		Type No.
				A	B	
ESCT-RC16	100	0.5	80	22	16	C
ESCT-RC24	300	0.5	97	27.5	24	C
ESCT-RC36	600	0.5	130	36	37	C
EACT-RC45	500	0.5	140	65	45	D
ESCT-RC60	500	0.5	200	60	50	A
ESCT-RC100	1000	0.5	395	135	100	B
ESCT-RC105	1500	0.5	350	105	100	A
ESCT-RC150	3000	0.5	525	165	150	B
ESCT-RC200	6000	0.5	665	240	200	B
ESCT-RC240	10000	0.5	800	245	240	A

Coil Type:	Type A			Type B			Type C			Type D
Model:	RC60	RC105	RC240	RC100	RC150	RC200	RC16	RC24	RC36	RC45
A: Window Size A	60	105	245	135	165	210	22	27.5	36	65
B: Window Size B	50	100	240	100	150	200	16	24	37	45
C: Coil O.D.	66	121	261	151	181	226	24	39.5	48	81
D: Coil Section	8						6			8
E: Lead Cable Total Length	2000									
F: Coil Length	200	350	800	395	525	665	80	97	130	205

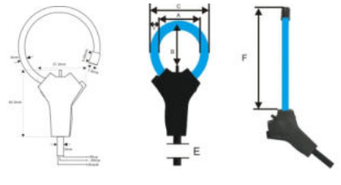
Type A:



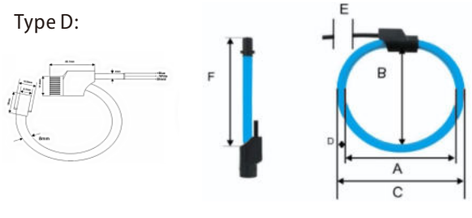
Type B:



Type C:



Type D:



ESCT-RCI Series

SINGLE PHASE/THREE PHASE INTEGRATOR

- High read accuracy Class0.2/Class 0.5
- Low power consumption
- Adaptive with different kinds of coils
- Wide range of rated input: 500A-100kA

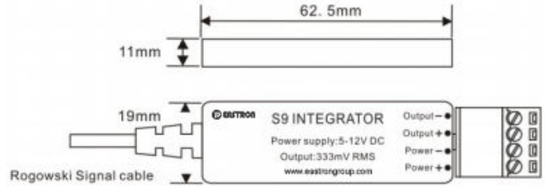
Single Phase DIN Rail 1A/5A Integrator		
Model	ESCT-RCI-A01	ESCT-RCI-A05
Rated output	1A AC	5A AC
Max. Output(overload)	3A AC(<1s, after the start overheating protection)	7A AC(<1s, after the start overheating protection)
Rated ratio	500A,3000A,10kA,...100kA	
Read accuracy	1%typical at 5% (≥10A) to 100% of rated Current @25℃	
Phase error	≤0.5°	
Linearity	±0.2% of reading (5% to 100% of range)	
Bandwidth	30Hz to 5kHz	30Hz to 5kHz(-3dB)
Max. burden	1Ω	0.8Ω
Power supply	85~265V AC/DC(Powered from 2pcs 85~265 to 8VDC 40W SMPS)	
Power consumption	5W	40W
Temperature drift	200ppm/℃	
Operating temperature	-20℃ to +70℃	
Storage temperature	-30℃ to +90℃	
Relative humidity	80% max. without condensation	
Protection degree	IP20	

Three Phase DIN Rail 1A/333mV Integrator		
Model	ESCT-RCI-01	ESCT-RCI-03
Rated output	1A AC	333mV AC
Rated ratio	100A,600A,1000A,3000A,6000A	
Read accuracy	0.5% typical at 1%(≥10A) to 110% of rated Current @25℃	
Phase error	≤0.5°	
Linearity	±0.2% of reading (10% to 120% of range)	
Bandwidth	30Hz to 5kHz	
Max. burden	0.5Ω(each phase)	
Power supply	12V/24V DC	
Power consumption	10W	
Temperature drift	200ppm/℃	
Operating temperature	-20℃ to +70℃	
Storage temperature	-30℃ to +90℃	
Relative humidity	80% max. without condensation	
Protection degree	IP20	

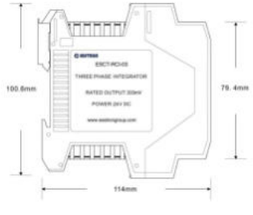
Single Phase 333mV Integrator	
Model	ESCT-RCI-9.1
Rated output	333mV AC
Max. Output(overload)	4.8V AC pp
Instant response time	≤1ms
Power consumption	70mW
Bandwidth	10Hz to 10kHz
Power supply	6-12V DC
Rated output	500A,3000A,10kA,...100kA
Read accuracy	0.5% typical at 5%(≥20A) to 120% F.S.@25℃
Phase error	≤0.5°
Linearity	±0.2% of reading (5% to 120% of range)
Operating temperature	-20℃ to +70℃
Storage temperature	-30℃ to +90℃

▶ Dimensions(Unit: mm)

ESCT-RCI-9.1



ESCT-RCI-01/03



ESCT-RCI-A01/05