Eastron® EUROPE

iot SOLUTIONS

EV Charger Metering Solutions

Specialists in the design and manufacturing of electricity monitoring solutions. High quality metering certified for the global market.

Contents

For mer informasjon om alle våre energimåler fra Eastron Europe, eller for å finne ut hvordan du kan kjøpe gjennom IOT Solutions AS, vennligst kontakt oss på telefonnummer +47 951 09 606 eller send en e-post til ep@iotsolutions.no

About Eastron

Eastron® EUROPE

As a key partner to some of the main EV charger manufacturers, we have developed a specific range of solutions for monitoring & monetising the charger consumption and load management in residential and commercial applications which are certified to MID and Eichrecht standards.

Our Mission

Our aim is to continue to develop and supply solutions that use the latest technology and offer benefits and features to the installers and end clients. 95% of our product range is fully MID certified and tested by a UK notified body and we also ensure we comply with all UK and EU regulatory standards.

Our product facility is audited annually by the notified body and operates a comprehensive resource planning and manufacturing execution systems. Giving full traceability and quality control on all our products.

To create value and develop the business for our partners through innovation and service.

We pride ourselves on our ability to consistently deliver standard and bespoke solutions, tailored for both the short- and long-term requirements of our clients as well as the marketplace.

Consistent, up-to-date, and comprehensive training for both our staff and partners ensure we are providing our customers with streamlined support and supply of our extensive range of high-quality products.

SCAN ME

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DIN Rail Mounted / Single Phase / (45A) SDM120 Series

Eastron EUROPE

- **Single Phase 45A Direct Fed**
- **MID B+D Certified**
- **Accuracy Class 1 (Active Energy)**
- **Bi-directional Measurement for kW and kWh**
- **Configurable Pulsed output (Import/ Export / Nett kWh)**
- **Modbus (SDM120Modbus) or Mbus (SDM120Mbus)**
- **Multi Parameter measurement**
- **Free Configuration Software**

SCAN ME

The SDM120 Series is an advanced multifunction single phase energy monitoring solution with optional outputs such as Pulsed, RS485 RTU Modbus and Mbus. Equipped with scroll display button for ease of navigation through the various parameters. Housed for DIN rail mounting, IP51 protection. Selectable measurement modes using our free configurations software for kWh display, Total kWh (Import + Export), Import kWh and Net kWh (Export - Import) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0141.

Specification table

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	≤ 2W/10VA
Pulse output	1000imp/kWh
Display	LCD with backlight
Max reading	999999 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

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

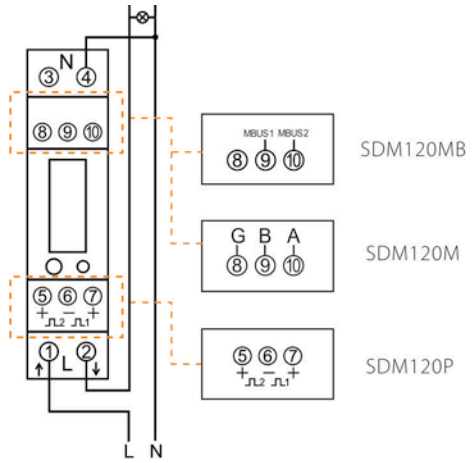
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600
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

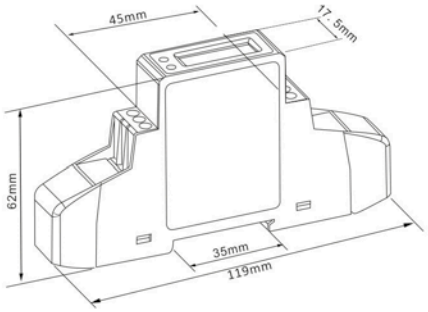
Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	1000imp/kWh

DIN Rail Mounted / Single Phase / (45A) SDM120 Series

Wiring Configuration



Dimension Drawing



Height	119mm
Width	17.5mm
Depth	62mm

Ordering options

Meter Type	Description of Meter
SDM120-Modbus	Single phase 2 wire, 120V or 230V AC, 0.25~5(45)A, 50/60Hz, backlighted LCD display, 2 Pulse outputs, RS485 Modbus communication. Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage (V), current (A), power factor, demand and frequency etc.
SDM120-Mbus	Single phase 2 wire, 120V or 230V AC, 0.25~5(45)A, 50/60Hz, backlighted LCD display, 2 Pulse outputs, M-bus EN13757-3 communication. Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage (V), current (A), power factor, demand and frequency etc.
SDM120-Pulse	Single phase 2 wire, 120V or 230V AC, 0.25~5(45)A, 50/60Hz, backlighted LCD display, 2 Pulse outputs. Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage (V), current (A), power factor, demand and frequency etc.

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

DIN Rail Mounted / Single Phase / (CT) SDM120 Series

- **Single Phase 5A Current Transformer operated**
- **MID B+D Certified**
- **Accuracy Class 1 (Active Energy)**
- **Bi-directional Measurement for kW and kWh**
- **Configurable Pulsed output (Import/ Export / Nett kWh)**
- **Modbus (SDM120CTModbus) or Mbus (SDM120CTMbus)**
- **Multi Parameter measurement**
- **Free Configuration Software**

SCAN ME

The SDM120 Series is an advanced multifunction single phase energy monitoring solution with optional outputs such as Pulsed, RS485 RTU Modbus and Mbus. Equipped with scroll display button for ease of navigation through the various parameters. Housed for DIN rail mounting, IP51 protection and current transformer operated 1/5A. Selectable measurement modes using our free configurations software for kWh display, Total kWh (Import + Export), Import kWh and Net kWh (Export - Import) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0141.

Specification table

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	1/5A AC Input
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

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

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

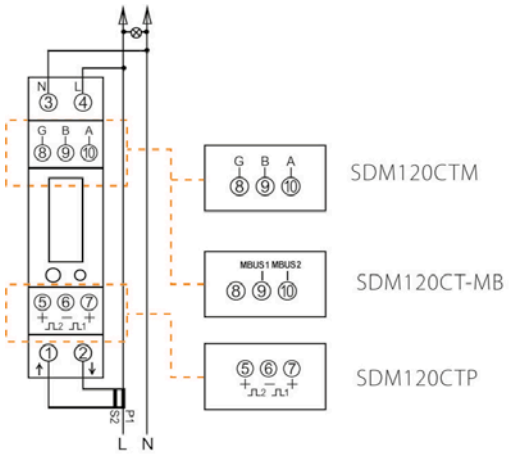
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600
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

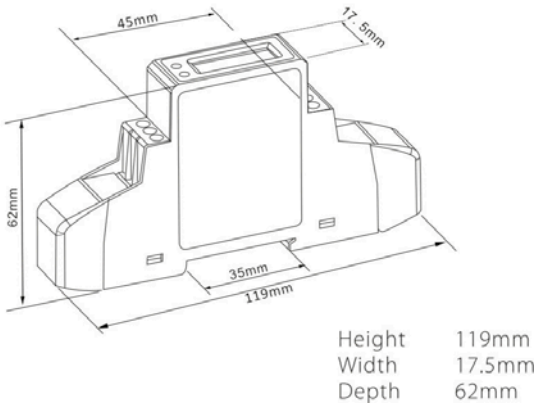
Pulse output	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600
Parity	NONE/EVEN/ODD
Stop bits	1 or 2
Primary Address	1 to 250
Secondary Address	00 00 00 01 to 99 99 99 99

DIN Rail Mounted / Single Phase / (CT) SDM120 Series

Wiring Configuration



Dimension Drawing



Height	119mm
Width	17.5mm
Depth	62mm

Ordering options

Meter Type	Description of Meter
SDM120CT-Modbus	Single phase 2 wire, 120V or 230V AC, CT operated, 50/60Hz.Backlighted LCD display, 2 Pulse outputs, RS485 Modbus communication.Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage (V), current (A), power factor, demand and frequency etc.
SDM120CT-Mbus	Single phase 2 wire,120V or 230V AC, CT operated, 50/60Hz.Backlighted LCD display,2 Pulse outputs,M-bus EN13757-3 communication. Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage(V), current(A), power factor,demand and frequency etc.
SDM120CT-Pulse	Single phase 2 wire,120V or 230V AC, CT operated, 50/60Hz.Backlighted LCD display,2 Pulse outputs. Measures active energy (kWh), reactive energy (kVarh), active power (W), reactive power (Var), apparent power (VA), voltage(V), current(A), power factor,demand and frequency etc.

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

DIN Rail Mounted / Three Phase / (100A) SDM72 Series

- **Three Phase 100A Direct Fed**
- **MID B+D Certified**
- **Accuracy Class 1 (Active Energy)**
- **Bi-directional Measurement for kW and kWh (SDM72BI)**
- **Fixed Pulsed output**
- **RS485 Modbus option (SDM72D-M)**
- **Active Energy and Power Measurement**
- **Resettable energy counter**
- **Low cost**

SCAN ME

The SDM72DR/BI is a entry level three-phase energy monitoring solution with a fixed pulsed output or RS485 RTU Modbus (SDM72D-M) This product will only measure and display total active energy (kWh) and Power (Watts) with optional partial reset energy (SDM72DR) Or the Bi-directional version which will read Import/Export and Total Active Energy (kWh) (SDM72BI).Housed for DIN rail mounting, IP51 protection and direct connection up to 100A. Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0213

Specification table

Specification	
Model	SDM72D/BR/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

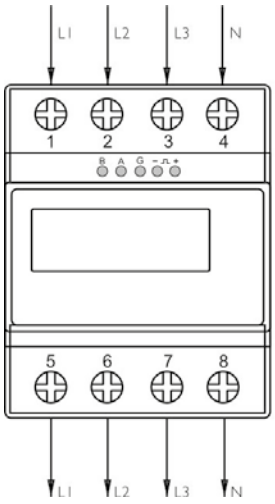
Performance criteria	
Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Reference temperature	23°C± 2°C
International standard	IEC 62053-21 / EN50470-1/3

Accuracy class	Class1/Class B
Installation category	CAT III
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
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

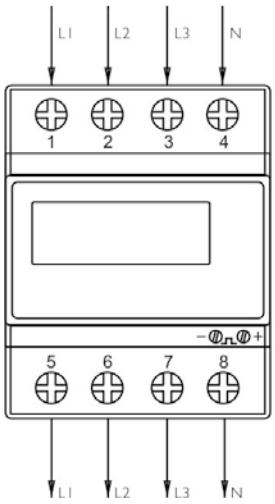
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	1200/2400/4800/9600bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

DIN Rail Mounted / Three Phase / (100A) SDM72 Series

Wiring Configuration



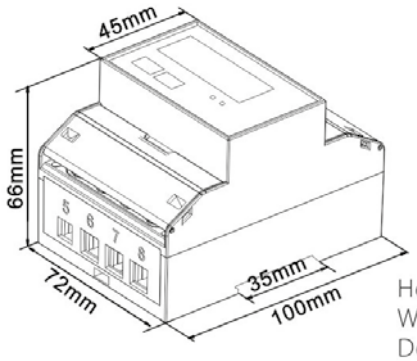
SDM72D-M



SDM72DR

SDM72BI

Dimension Drawing



Height	100mm
Width	72mm
Depth	66mm

Ordering options

Meter Type	Description of Meter
SDM72DR	3PH, 3X230(400)V,0.5~10(100)A,50/60Hz, Active energy (kWh) + active power (W)Resettable partial energy, Pulse output, 100A direct load, Class 1.0 Accuracy, 72mm 4 module width, Din rail mounting.
SDM72BI	3PH, 3X230(400)V,0.5~10(100)A,50/60Hz, Active energy (kWh) + active power (W), Bi-directional measurement (Import & export), Pulse output, 100A direct load, Class 1.0 Accuracy, 72mm 4 module width, Din rail mounting.
SDM72D-M	2P3W, 3P4W , Measures active energy & power Bi-directional measurement IMP& EXP Resettable partial energy Pulse output RS485 Modbus RTU Max.100A direct connection, Accuracy better then class 1/B.
SDM72D-M V2	2P3W, 3P4W 3x230(400)V, 0.5~10(100)A, 50/60Hz, Active energy (kWh), Current / Voltage / Power per phase, Total Power, IMP & EXP energy, Pulse output and RS485 Modbus RTU, 100A Direct load, Accuracy better than 1/B, 72mm 4 module width, Din rail mounting.

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

DIN Rail Mounted / Three Phase / (100A) SDM54 Series

Eastron EUROPE

- **Three phase 100A Direct Fed**
- **MID B+D Certified**
- **Class B Accuracy**
- **Bi-Directional Measurement for Active Energy and Power**
- **Configurable pulsed output (Import/ Export and Nett kWh)**
- **Modbus and Mbus serial output options**
- **Multi Parameter measurement**
- **Dual Tariff**
- **3 Module DIN rail mounted**

SCAN ME

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 pre-set 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.

Specification table

Electrical specifications	
Power:	self power supply (via measured voltage)
Consumption:	<1W, 8VA
Basic current:	10A
Max. current :	100A
Min. current:	0.5A
Starting current :	0.02A
Over-current:	30 x Imax for 0.01s
L-N voltage:	100 to 289V a.c. (not for 3p3w supplies)
L-L Voltage:	173 to 500V a.c. (3p supplies only)
Frequency:	50Hz (MID version) 50/60Hz (non-MID version)
Accuracy:	
active energy	Class 1(IEC62053-21)/Class B(EN50470-3)
Reactive energy	Class 2 (IEC62053-23)
Voltage	0.5% of range maximum
Current	0.5% of nominal
Frequency	0.2% of mid-frequency
Power factor	1% of unity (0.01)
Active power (W)	±1% of range maximum Reactive power (VAr) ±1% of range maximum
Apparent power (VA)	±1% of range maximum

Environmental specifications	
Operating temperature	-25°C to +55°C
Storage temperature	-30°C to +80°C
Relative humidity	0 to 90%, non-condensing @40°C
Altitude	Up to 2000m
Mechanical environment	M2
Electromagnetic environment	E2

Output specifications Three interfaces are available:	
Modbus RS485 port output	(SDM54-M, SDM54-2T, SDM54-DI)
M-Bus port output	(SDM54-MB, SDM54-MB-2T)
two Pulse outputs	

Modbus RS485 port output	
Baud rate:	2400, 4800, 9600(default), 19200, 38400
Parity:	none /odd/even
Stop bits:	1 or 2
RS485 address:	001 to 247
Response time:	<80mS
Transmission distance:	1000m

M-Bus port output	
Baud rate:	300, 600, 1200, 2400, 4800, 9600
Parity:	even/odd
Stop bits:	1 or 2
M-Bus primary address:	001 to 250
M-Bus Secondary address:	same as the serial number of the meter

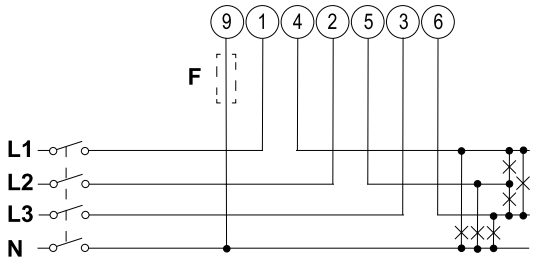
Pulse Output	
The unit provides two pulse outputs indicating real-time measured energy. Pulse output 1 is configurable; Pulse output 2 is fixed with constant 400imp/kWh. Both pulse outputs are passive type.	
Pulse output 1	is configurable. Default setting is exp-kWh; 100mS, constant 400imp/kWh
Pulse output 2	is non-configurable. It is fixed up with active kWh. The constant is 400imp/kWh.

Mechanics specifications	
DIN rail dimensions	54x100x67.5mm(WxHxD
Mounting	DIN Rail 35mm
Ingress protection	IP51 front panel (indoor)
Material	Self-extinguishing UL94 V-0
Weight	265g

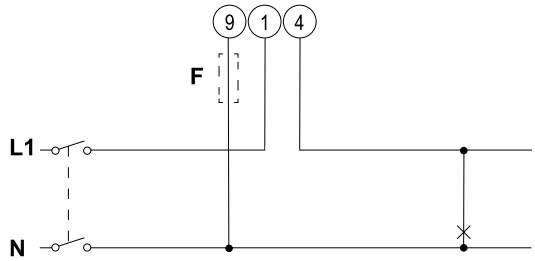
DIN Rail Mounted / Three Phase / (100A) SDM54 Series

Wiring Configuration

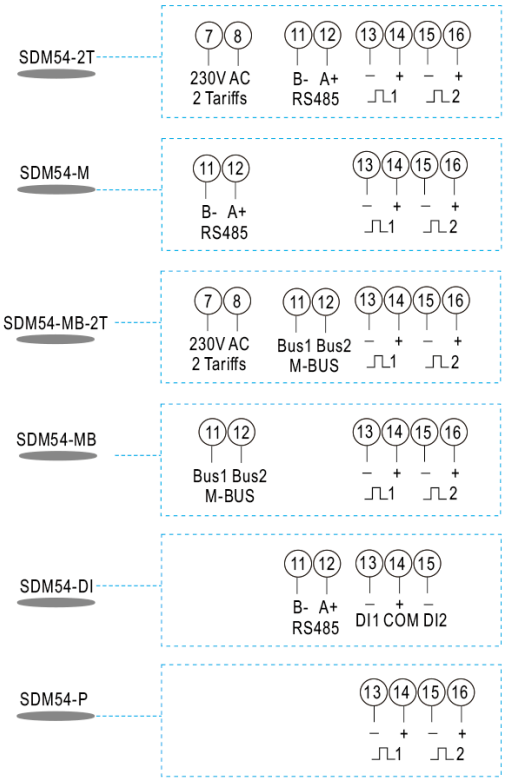
- Three Phase Four Wires:



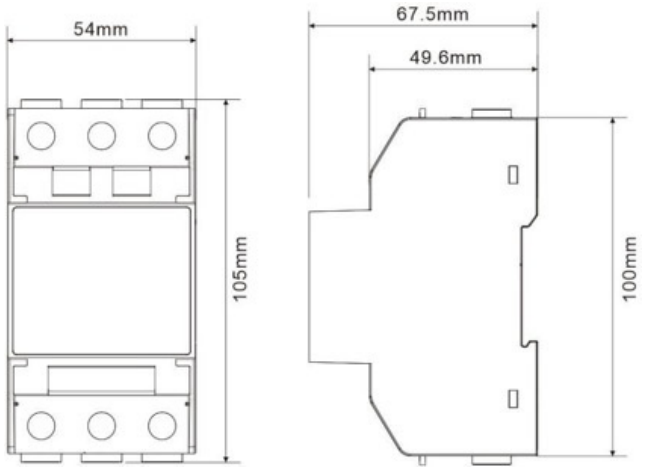
- Single Phase Two Wires:



- Other terminals



Dimension Drawing



Ordering options

The SDM54 Series are smart three phase energy meters, covering 3 models with following features and differences:

Model	Measurements	Outputs	Tariff Control
SDM54--2T	kWh, kVarh, W, Var, VA, PF, Hz, V,	2x Pulse outputs; RS485 Modbus	Double tariffs
SDM54-M	A, Max.dmd. Etc.	2x Pulse outputs; RS485 Modbus	Single tariff
SDM54-DI	kWh, kVarh, W, Var, VA, PF, Hz, V,	2x Digital inputs; RS485 Modbus	Single tariff
SDM54-MB-2T	A, Max.dmd. Etc.	2x Pulse outputs; M-Bus	Double tariffs
SDM54-MB	kWh, kVarh, W, Var, VA, PF, Hz, V,	2x Pulse outputs; M-Bus	Single tariff
SDM54-P	A, Max.dmd. Etc.	2x Pulse outputs	Single tariff

Safety and EMC

• Measurement category	IEC 61010-1 CAT III
• Current input	Direct connect
• Over-voltage category	CAT III
• Dielectric withstand	IEC 61010-1 double insulated
• Protective class	II
• EMC	IEC 61326-1:2013 ; IEC 61326-2-3:2013

DIN Rail Mounted / Three Phase/ (100A)
SDM630 Series

Eastron EUROPE

- **Three Phase 100A Direct Fed**
- **MID B+D Certified**
- **ETL Approved**
- **Accuracy Class 0.5 (Active Energy)**
- **Bi-directional Measurement for kW and kWh**
- **Configurable Pulsed output (Import/ Export / Nett kWh)**
- **Modbus (SDM630Modbus) or Mbus (SDM630Mbus)**
- **Multi Parameter measurement**
- **Multi-Tariff**
- **Free Configuration software**

SCAN ME

The SDM630 series is an advanced multifunction three-phase energy monitoring solution with optional outputs such as Pulsed, RS485 RTU Modbus and Mbus. Equipped with configuration and display buttons for ease of navigation through the various parameters and settings. Housed for DIN rail mounting, IP51 protection and direct connection up to 100A. Selectable measurement modes using our free configurations software for kWh display, Total kWh (Import + Export), Import kWh and Net kWh (Export - Import) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0151

Specification table

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 as per page 11
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

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
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

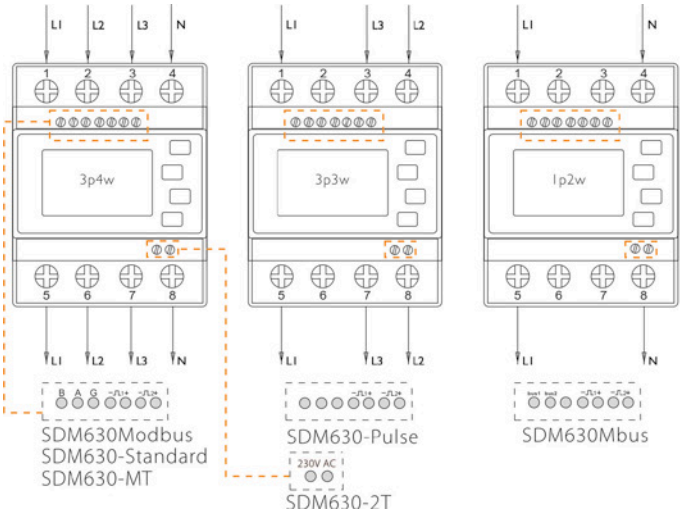
Modbus	
Bus type	RS485(semi-duplex)
Protocol	Modbus RTU
Baud rate	2400/4800/9600/19200/38400bps
Address range	1-247
Max. Bus loading	64pcs
Communication distance	1000M
Parity	EVEN/ODD/NONE
Data bit	8
Stop bit	1

M-bus	
Bus type	M-bus
Protocol	EN13757-3
Baud rate	300/600/1200/2400/4800/9600
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

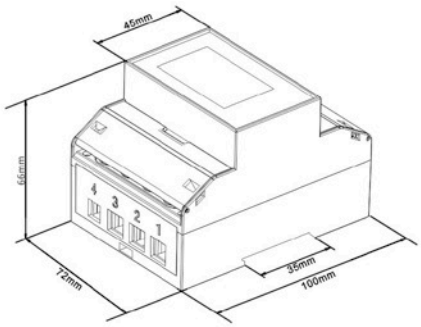
Pulse output	
Pulse outputs	2
Pulse output type	Passive
Pulse Output 1	Configurable
Pulse width	200/100(default)/60ms
Pulse output 2	400imp/kWh

DIN Rail Mounted / Three Phase/ (100A)
SDM630 Series

Wiring Configuration



Dimension Drawing



Height 100mm
Width 72mm
Depth 66mm

Ordering options

Meter Type	Description of Meter
SDM630-Modbus	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-Mbus	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, M-Bus EN13757-3 communication. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630-MT	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU, multi-tariffs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc
SDM630-Std	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, Imp_kWh, Exp_kWh etc.
SDM630-Pulse	3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

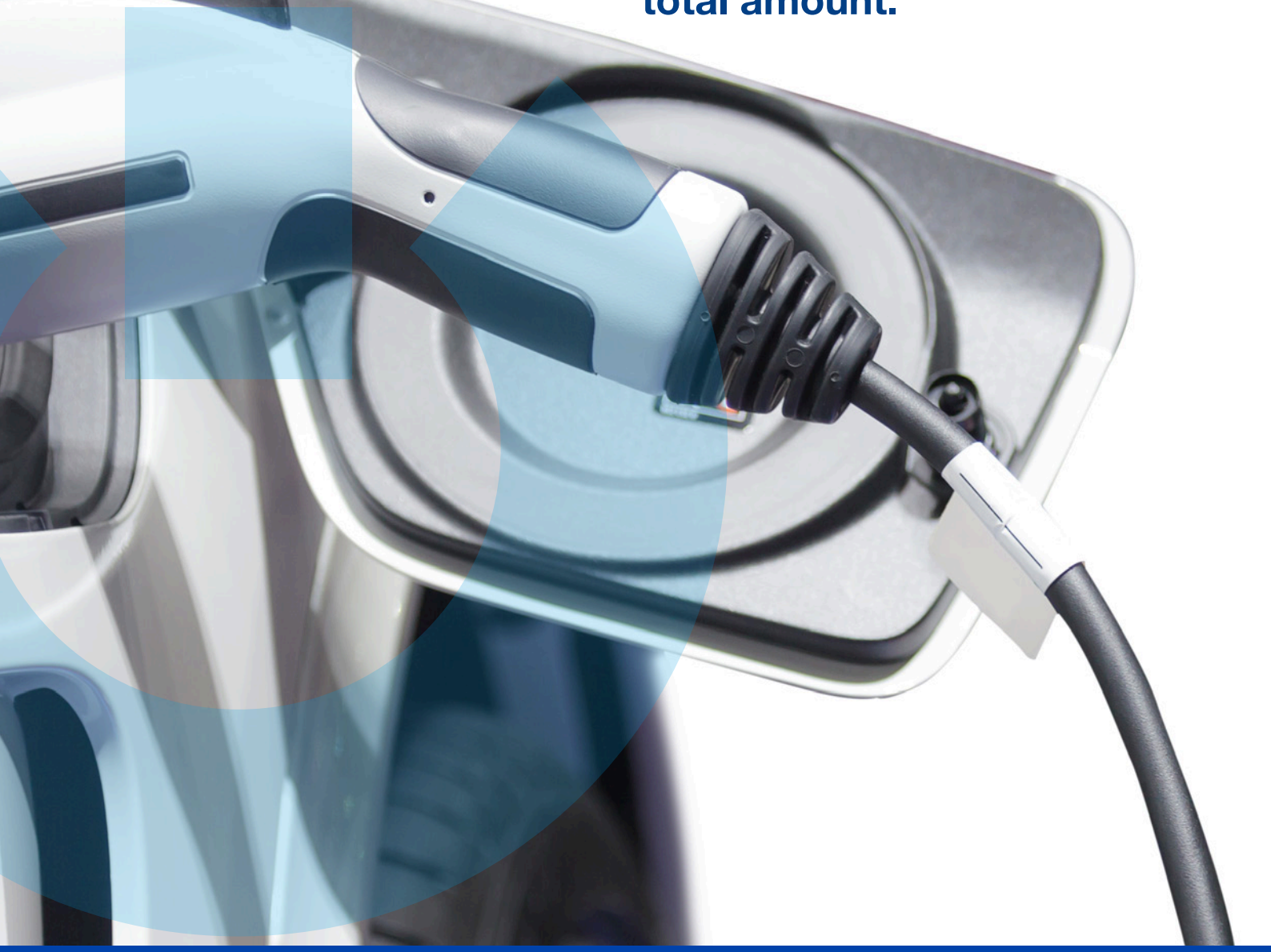
Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

Eastron EUROPE

SDM630-EV Eichrect Approved Meter for EV chargers

To date we are used to having transparency when filling up at a petrol station. There is a comprehensive display of the quantity of fuel pumped, price per litre and total amount.

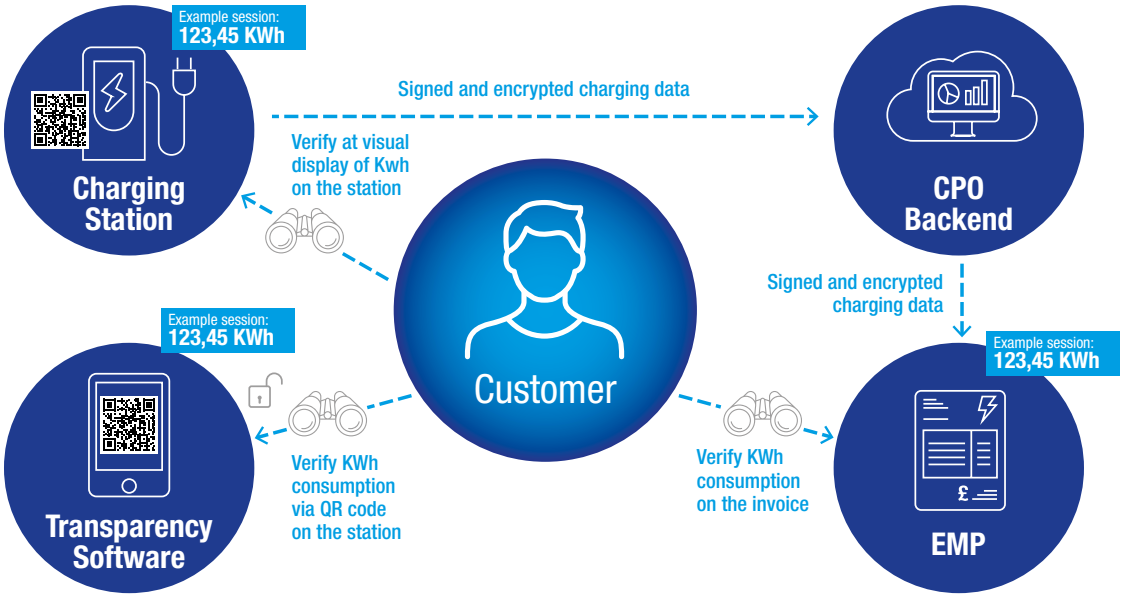


For mer informasjon om alle våre energimåler fra Eastron Europe, eller for å finne ut hvordan du kan kjøpe gjennom IOT Solutions AS, vennligst kontakt oss på telefonnummer +47 951 09 606 eller send en e-post til ep@iotsolutions.no

Therefore, it is only natural for an EV driver when charging their car at a charging station to have the same level of transparency.The Eichrecht measurement and calibration act, which is an amendment to Measuring and Verification Act (Mess und Eichgesetz / MessEG) and the Measuring and Verification Ordinance (Mess- und Eichverordnung / MessEV) is the solution giving the user transparency for detailed billing for each charging event. The SDM630-EV has been designed specifically for use within Electric-Vehicle Infrastructure. Featuring high temperature operation and digital signing for charging events.

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 pre-set periods of up to 60 minutes. The SDM630-Ev supports Max.100A direct loads per phase, With dual tariff management availability. The meter is designed for DIN-Rail mounting, with IP51 front protection and comes equipped with Pulsed outputs and RS485 Modbus.

Simplified Diagram for EV driver and how Eichrecht provides secured data transparency of the EV charging session



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DIN Rail Mounted / Three Phase / (100A) SDM630-EV

- **MID Certified according to class B EN 50470-3**
- **Eichrecht Certified Software -Module B**
- **Eichrecht Certified -Module B**
- **Eichrecht Certified -Module D**
- **Import/Export energy**
- **Dot Matrix LCD backlit Display**
- **Operation temperature -25°C to +70°C**
- **RS485 Modbus RTU communication**
- **Support OCMF communication protocol**
- **4 DIN modules**
- **Max Current 100A**
- **Easy to use PC software tool**
- **Charge Control information**
    1. **Status of Charging station**
    2. **Charging Duration**
    3. **Consumption**
    4. **Charge-Point-Identification**

SCAN ME

The SDM630-EV has been designed specifically for use within the Electric-Vehicle infrastructure. Featuring high temperature operation and digital signing for charging events. 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 pre-set periods of up to 60 minutes. SDM630-EV 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.

Specification table

Specification	
Power	self-power supply (via measured voltage)
Consumption	<1W, 10VA
basic current	10A
Max.current	100A
Min.current	0.5A
Starting current	0.02A
Over-current	30x Iman for 0.01s
L-N voltage	100 to 289V a.c. (not for 3P3W supplies)
L-L voltage	173 to 500V a.c.(3P3W supplies only)
Frequency	50Hz(MID version) 50/60Hz(non-MID version)
Accuracy	
Active energy	Class 1(IEC62053-21)/Class B(IEC50470-1/3)
Reactive energy	Class 2(IEC62053-23)
Voltage	0.5% of range maximum
Current	0.5% of nominal
Frequency	0.2% of mid-frequency
Power factor	1% of unity(0.01)
Active power(W)	±1% of range maximum Reactive power(VAr)±1% of range maximum
Apparent power(VA)	±1% of range maximum

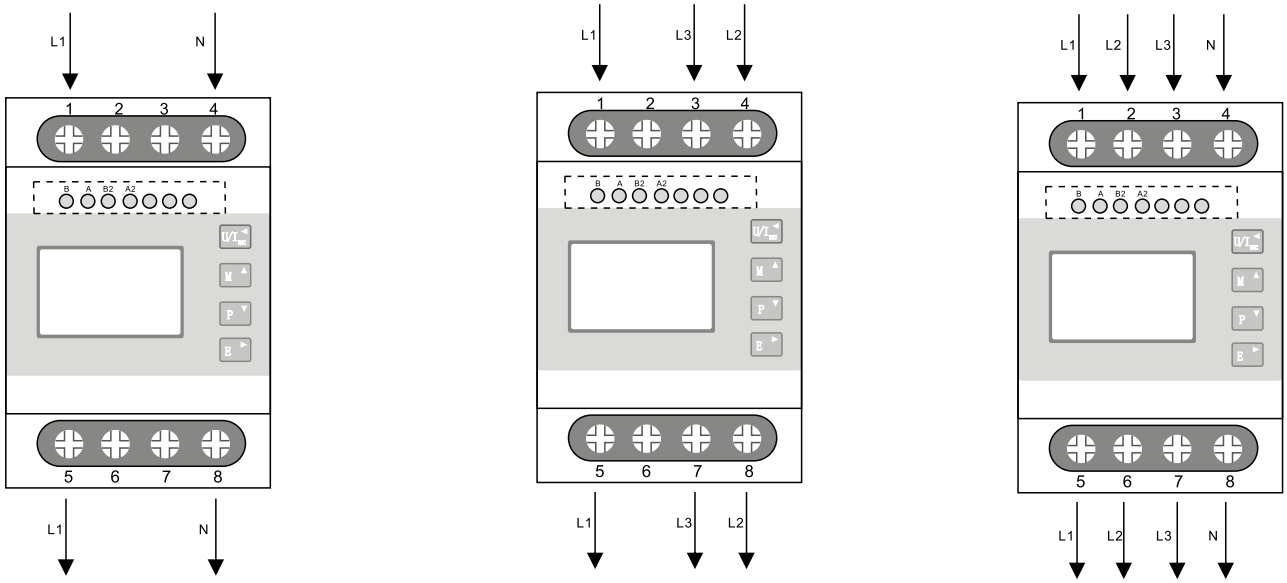
Environment specifications	
Operating temperature	-25°C to +55°C -40°C to + 70°C(optional)
Storage temperature	-40°C to + 70°C
Relative humidity	≤95%
Altitude	Up to 2000m
Mechanical environment	M2
Electromagnetic environment	E2

2 Modbus RS485 port outputs	
1st Modbus output	
Baud rate (1st port)	2400,4800,9600(default),19200,38400
Parity	none/odd/even
Stop bits	1 or 2
RS485 address	001 to 247
Respond time	100mS
Transmission distance	1000m
2nd Modbus output(fixed)	baud rate 9600, Parity none, Stop bit 1

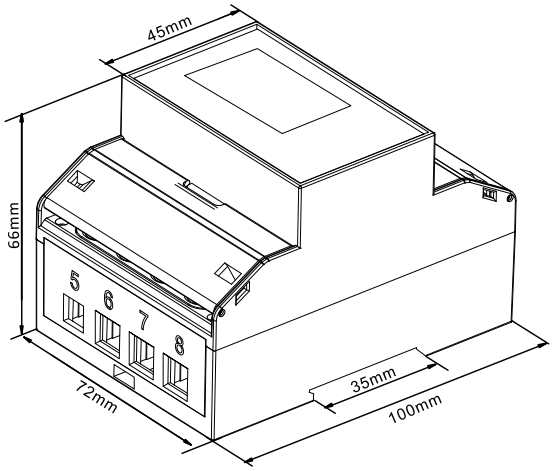
Mechanics specification	
DIN rail dimensions	100x72x66mm (HxWxD)
Mounting	DIN Rail 35mm
Ingress protection	IP51 front panel (indoor)
Material	Self-extinguishing UL94 V-0
Weight	315g

DIN Rail Mounted / Three Phase / (100A) SDM630-EV

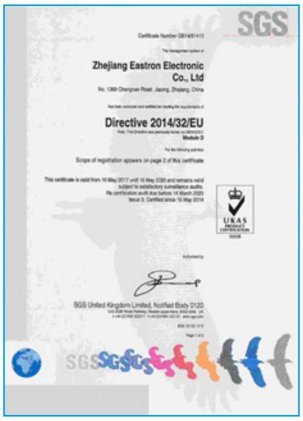
Wiring Configuration



Dimension Drawing

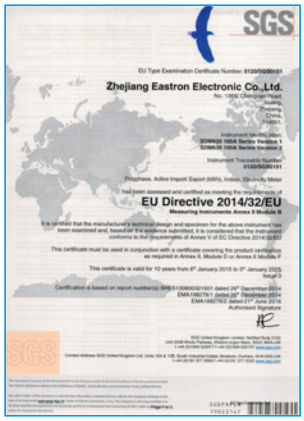


Our certificates and accreditations


SGS
Zhejiang Eastron Electronic Co., Ltd
Directive 2014/32/EU


SGS
Zhejiang Eastron Electronic Co.,Ltd
EC Directive 2014/32/EU


SGS
Jiaxing Eastron Electronic Instrument Co., Ltd.
EC Directive 2004/22/EC


SGS
Zhejiang Eastron Electronic Co.,Ltd.
EU Directive 2014/32/EU


SGS
EU Type Examination Certificate Number: 0120/SGS0141
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EU Directive 2014/32/EU


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EU Directive 2014/32/EU


SGS
Zhejiang Eastron Electronic Co., Ltd.
EU Directive 2014/32/EU


SGS
Eastron Zhejiang Electronic Co. Ltd
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SGS
Caravan Park Electrical Services Ltd
EU Directive 2014/32/EU

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