Eastron

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

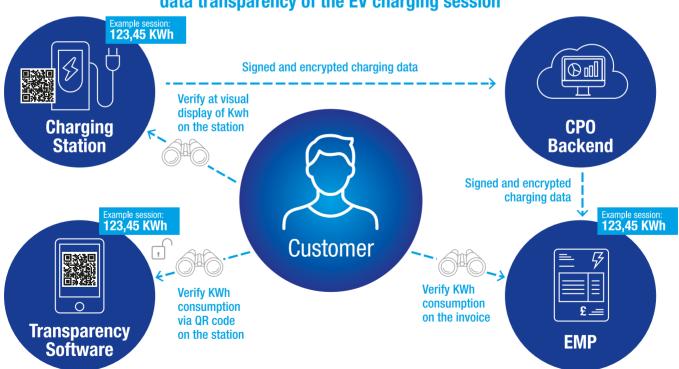
Datasheet

- CSA/PTB Certified for the German Eichrecht Standards
- MID Certified according to class B EN 50470-3
- Import/Export energy
- Dot Matrix LCD backlit Display
- Operation temperature -40°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-Identication



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), three phase three wires(3p3w) 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 withpulse outputs, RS485 Modbus port.

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





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Datasheet

Specification Table

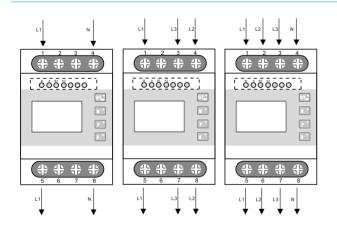
Consideration	
Specification	
Power	self-power supply (via measured voltage)
Consumption	<1W, 10VA
basic current	10A
Max.current	100A
Min.current	0.5A
Starting current	0.02A
Over-current	30x Iman for 0.01s
L-N voltage	100 to 276V a.c. (not for 3P3W supplies)
L-L voltage	173 to 480V a.c.(3P3W supplies 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)	$\pm 1\%$ of range maximum Reactive power(VAr) $\pm 1\%$ of range maximum
Apparent power(VA)	±1% of range maximum

Environment specifications	
Operating temperature	-40°C to + 70°C
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	
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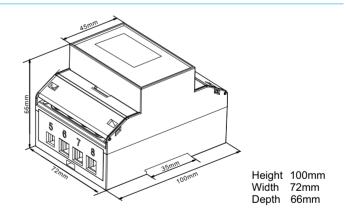
2 Modbus RS485 port outputs	
1st Modbus output	
Baud rate (1st port)	2400,4800,9600(default),19200,38400
Parity	none/odd/even
Stop bits	1 or 2
RS485 address	001 to 247
Respond time	100mS
Transmission distance	1000m
2nd Modbus output(fixed)	baud rate 9600, Parity none, Stop bit 1

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

Wiring Configuration



Dimension Drawing



Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013 **Low Voltage Directive:** EN61010_1:2010+A1:2019 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

PTB testing requirements: PTB-A20.1/PTB-A50.7