

SMARTenergy sensor DC

Energy sensor for measuring DC currents up to 300A

The SMARTenergy sensor DC offers the connection of up to 2 DC current transformer sensors (X1, X2). The current transformers are available for 100A and 300A with an accuracy class of 1.86%.

The sensor impresses with its simplicity:

No configuration or one-time calibration is required. To network several measuring points, the SMARTenergy DC sensors are simply networked with each other with an RJ45 network cable. All measurement cards are automatically recognized via the Autodetect function and report to the cloud platform with your identification number (QR code).




Key features

- 2 x Current Transformers
- Current transformer connection pluggable via RJ10 (Type: 100A-300A)
- Measured current in A, (Ah optional) active power and load curves in 15min. rhythm
- Various mounting options (DIN rail, cable ties, magnet)
- Small dimensions 50mm x50mm



SPECIFICATION



Type Sensors	PSSystec Current Measurement Transformer Type: 100A-300A
Connection sensor technology	RJ10
Input accuracy	12Bit resolution 40000 samples per second
Discovery	Current current, optionally Ah in 15min. rhythm per sensor Attention: if no sensor is connected or if the sensor breaks, the maximum value is FLOAT32 output Attention: the measured voltage is measured on the SMARTebox. Multiplication by A/Ah is done in the cloud platform via real-time rule.
Reset	Reset Ah can be reset via button. (If the Ah option is selected)
Diagnostic LED	Yes
Identification code	Yes, labeled via QR code on device
Supply	12-30 VDC, +/-10% over RJ45 Patch Cord
Operation T/H	-40°C.... 85°C / Max. 85%
Storage T	-40°C.... 85°C / Max. 85%
IP Class	IP20
Weight	50 x 50 x 28 mm
Dimensions	150g
Approval	
Conformance	EMC (Electromagnetic Compatibility) EN 301489-1 v2.2.0 General Part EN 301489-52 v1.1.0 DIN EN 61326-1 - 2018-09 Safety DIN EN 61010-1:2020-03; VDE 0411-1:2020-03
Warranty	2 years



ELECTRICAL ASSEMBLY

Connection SMARTenergy



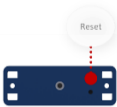
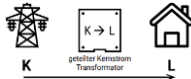
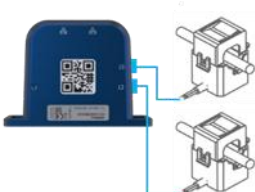
The SMARTenergy sensors DC are connected to the SMARTebox via standard RJ45 network cable AWG27. For looping through the signal, 2 RJ45 sockets are provided on each SMARTenergy sensor.

Diagnostic LED



	10 Hz	Communication timeout
	1 Hz	Idle state (wait for address assignment)
	2 Hz	In Assignment Process
	4sec Off/1sec On	HW Fail
	Steady	Run

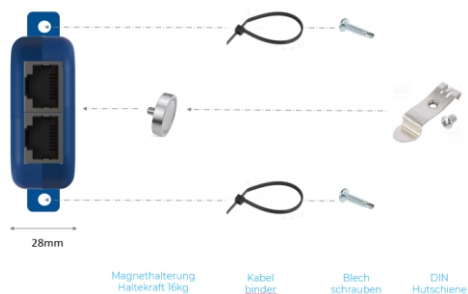
After connecting the SMARTenergy sensor DC to the SMARTebox, the Control LED must go to RUN after about 60 seconds

Reset	<p>The RESET button can be used to manually reset the Ah to 0. To do this, hold down the button for 5sec. The sensor must be connected to the patch cord and have power. The control LED goes off briefly.</p>	
Connection Sensors	Compatible sensor technology	<p>PSsystem typ- Hall Folding Transducer 100A PSsystem typ- Hall Folding Transducer 300A Note: no configuration necessary Note: When connecting a 100A type to a 300A line or more, the measured value goes into saturation. However, the connection is electrically permissible.</p>
Connection direction		<p>On the bottom of the flip transducer, you will see an arrow indicating the direction of the energy flow. This is not to be observed!</p> 
Connection order		<p>Unlike AC folding converters (current transformers), it is not critical to unplug the DC folding converter when current is still flowing through the conductor to be measured.</p>
Connection scheme	2 Hall folding transducers	

MECHANICAL ASSEMBLY



Connection



The following options are available on the SMARTenergy for mechanical installation:

- Magnetic mount
- Cable tie
- Screw joint
- DIN rail holder



IDENTIFICATION CODE

The QR code is applied to the page.

The QR code includes

- the serial number [MACSTM]
- Measuring Case DCM

General structure

:: PSS06; [MACBLE]; [MACSTM]; DCM

Example:

Identification code



The information and instructions contained in this datasheet have been compiled with the greatest possible care. Nevertheless, we assume no liability for any errors, inaccuracies or incompleteness in the datasheet. The use of the datasheet is at your own risk.