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Current measuring transducers for measuring AC, DC, and distorted currents. Configuration via USB-C interface via the web server (without 24 V DC). Four current measuring ranges: 0 A ... 0.1 A to 0 A ... 12.5 A. Modbus/RTU interface configuration (RS-485), Standard configuration, Push-in connection

Commercial data

Item number	1191969
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C444
Product key	CMMA33
GTIN	4063151243258
Weight per piece (including packing)	147.4 g
Weight per piece (excluding packing)	147.4 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Product properties

Product type	Current measuring transducer
Insulation characteristics	
Insulation	Safe isolation in accordance with IEC/EN 61010-1
Overvoltage category	III (300 V)
Pollution degree	2

Electrical properties

Step response (10-90%)	200 ms (AC/DC)
	20 ms (DC)
Maximum temperature coefficient	< 0.03 %/K
Maximum transmission error	0.5 % (of nominal range value under nominal conditions)
Rated insulation voltage	300 V AC (to earth)

Electrical isolation IEC 61010-2-030

Standards/regulations	IEC 61010-2-030
Measuring category	III (300 V)

Electrical isolation Input/output

Test voltage	4 kV AC (50 Hz, 60 s)
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Electrical isolation Input/power supply

Test voltage	4 kV AC (50 Hz, 60 s)
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Electrical isolation Output/supply

Test voltage	2 kV AC (50 Hz, 60 s)
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Supply

Nominal supply voltage	24 V DC
Nominal supply voltage range	12 V DC ... 24 V DC -20 % ... +25 %
Supply voltage range	9.6 V DC ... 30 V DC
Power consumption	≤ 2 W (30 V DC)

Input data

Measurement

Input current range	0 A AC ... 10 A AC
	-10 A DC ... 10 A DC
Measuring range	0 A AC/DC ... 0.1 A AC/DC
	0 A AC/DC ... 1 A AC/DC
	0 A AC/DC ... 5 A AC/DC
Setting range for min. input current	0 mA AC/DC ... 100 mA AC/DC
Setting range for max. input current	0 A AC/DC ... 12.5 A AC/DC (DIN/EN 61010-1)
	0 A AC/DC ... 10 A AC/DC (UL 61010-1)

ECM-UC-10A-MRTU - Current measuring transducer



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	-12.5 A DC ... 12.5 A DC (DIN/EN 61010-1)
	-10 A DC ... 10 A DC (UL 61010-1)
Overload capacity	2 x I _N
Surge strength	10 x I _N
Frequency measuring range	0 Hz
	10 Hz ... 100 Hz
	10 Hz ... 200 Hz
	10 Hz ... 500 Hz
	10 Hz ... 1000 Hz
Curve type	AC, DC or distorted currents

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 13

Interfaces

WBM

Designation	WBM: Default address, USB-C interface
IP address	192.168.128.1

Modbus RTU

Designation	Modbus/RTU interface configuration
Note	Register contents, see register table
Connection method	RS-485
Address setting	Modbus default address: 1
Parity	even
Stop bit	1
Data bits	8
Transmission speed	19200 baud

Dimensions

Item dimensions

Width	22.6 mm
Height	106.7 mm
Depth	113.8 mm
Depth (Device depth (DIN rail mounting))	114.5 mm (Snapped onto DIN rail NS 35/7,5 in accordance with EN 60715)

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0 (Housing)

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Housing material	PA 6.6-FR
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 60 °C
	-40 °F ... 140 °F
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m
Permissible humidity (operation)	≤ 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant
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UKCA

Certificate	UKCA-compliant
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UL, USA/Canada

Identification	Ind. Cont. Eq. E238705-E196811
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EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive
Noise immunity	EN 61000-6-2

Noise emission

Standards/regulations	EN 61000-6-4
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Standards and regulations

Standards/regulations	IEC 61010-1
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Mounting

Mounting position	vertical or horizontal
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Approvals

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cULus Listed
Approval ID: E238705



cULus Listed
Approval ID: E196811



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Approval ID: E196811

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Classifications

ECLASS

ECLASS-13.0	27210123
ECLASS-15.0	27210123

ETIM

ETIM 9.0	EC002475
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
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