

EEM-MA400 - Measuring device



2901364

<https://www.phoenixcontact.com/us/products/2901364>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Energy measurement device to measure electrical parameters in low voltage installations up to 500 V, acquisition of total harmonic oscillations - can be extended with RS-485 communication module

Your advantages

- Can be extended with RS-485 communication module (JBUS/MODBUS)
- Acquisition of total harmonics up to 51st harmonic

Commercial data

Item number	2901364
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C446
Product key	CMMC11
GTIN	4046356585804
Weight per piece (including packing)	721.8 g
Weight per piece (excluding packing)	704.2 g
Customs tariff number	90303100
Country of origin	TN

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Product properties

Product type	Energy measuring device
--------------	-------------------------

Electrical properties

Electrical isolation	EN 61010-1 (Safe isolation)
	EN 61010-1 (Safe isolation)
	EN 61010-1 (Basic insulation)
	See extension module
	See extension module
Test voltage	3.5 kV AC (50 Hz, 1 min.)
	2.2 kV AC (50 Hz, 1 min.)
Mains type	3-phase (3 or 4-conductor), 2-phase (2-conductor), and single-phase (1-conductor)

Electrical isolation

Rated insulation voltage	300 V AC (EN 61010-1)
Overvoltage category	III
Pollution degree	2

Supply

Supply voltage range	110 V AC ... 400 V AC $\pm 10\%$
	120 V DC ... 350 V DC ($\pm 20\%$)
Nominal power consumption	5 VA
Power consumption	10 VA (with max. number of extension modules)

Input data

Measuring data acquisition

Measuring principle	True r.m.s. value measurement
Measured value	AC sine (50 Hz/60 Hz)
Acquisition of harmonics	up to 51st harmonic

Measurement: Voltage

Input name	Voltage measuring input V1, V2, V3
Input voltage range	50 V AC ... 500 V AC (Phase/Phase)
	28 V AC ... 289 V AC (Phase/neutral conductor)
Precision	0.2 %

EEM-MA400 - Measuring device



2901364

<https://www.phoenixcontact.com/us/products/2901364>

Measurement: Current

Input name	Current measurement I1, I2, I3
Input current range	via external transformers
Input current	9999 A (primary) 5 A (secondary)
Measuring range	0 A ... 9999 A
Overload capacity	6 A (Permanent)
Response threshold from measuring range nominal value	5 mA
Precision	0.2 %
Current overload	10 x I _N for 1 s

Measurement: Power

Messbereich_Leistung	0 MW ... 11 MW 0 Mvar ... 11 Mvar 0 MVA ... 11 MVA
Precision	0.5 %
Active energy (IEC 62053-22)	Class 0.5 S
Reactive power (IEC 62053-23)	Class 2

Output data

Output description	Via function module
--------------------	---------------------

Connection data

Connection method	COMBICON plug-in screw terminal block
Stripping length	6 mm
Note	Voltage and other connections
Conductor cross-section rigid	0.5 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross-section AWG	20 ... 14
Tightening torque	0.4 Nm ... 0.4 Nm
Connection method	Screw connection
Stripping length	7 mm
Note	Current connection
Conductor cross-section rigid	0.5 mm ² ... 6 mm ²
Conductor cross-section flexible	0.5 mm ² ... 6 mm ²
Conductor cross-section AWG	20 ... 8

Dimensions

Width	96 mm
Height	96 mm
Depth	82 mm 80 mm (Installation depth with extension module) 60 mm (Installation depth without extension module)

EEM-MA400 - Measuring device



2901364

<https://www.phoenixcontact.com/us/products/2901364>

Material specifications

Color	black (RAL 9005)
-------	------------------

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP52 (Front) IP30 (Back side)
Ambient temperature (operation)	-10 °C ... 55 °C (14 °F ... 131 °F)
Ambient temperature (storage/transport)	-20 °C ... 85 °C (-4 °F ... 185 °F)
Max. permissible relative humidity (operation)	≤ 95 %
Max. salt spray content	≤ 2.5 %

Approvals

CE

Certificate	CE-compliant
-------------	--------------

UL, USA/Canada

Identification	UL 61010-1 CSA-C22.2 No. 61010-1 cULus
----------------	--

UL data

Supply voltage	300 V AC
Nominal supply voltage range	110 V AC ... 240 V AC ±10 % 120 V DC ... 250 V DC ±10 %
Power consumption	10 VA
Altitude	≤ 2000 m
Operating mode	Indoor use
Surge voltages	transient overvoltage according to installation classes
Overvoltage category	I, II, III
Overvoltage category of the supply	Min. II
Ambient temperature (operation)	0 °C ... 40 °C
Max. permissible relative humidity (operation)	80 % (up to 31 °C) 50 % (at 40 °C)

UL data

Supply voltage	300 V AC
Nominal supply voltage range	110 V AC ... 240 V AC ±10 % 120 V DC ... 250 V DC ±10 %
Power consumption	10 VA
Altitude	≤ 2000 m
Operating mode	Indoor use
Ambient temperature (operation)	0 °C ... 40 °C
Max. permissible relative humidity (operation)	80 % (up to 31 °C)

EEM-MA400 - Measuring device



2901364

<https://www.phoenixcontact.com/us/products/2901364>

	50 % (at 40 °C)
Surge voltages	transient overvoltage according to installation classes
Overvoltage category	I, II, III
Overvoltage category of the supply	Min. II

Mounting

Mounting position	Front panel installation, horizontal
-------------------	--------------------------------------

EEM-MA400 - Measuring device



2901364

<https://www.phoenixcontact.com/us/products/2901364>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com