

Measuring instrument - EEM-MA400 - 2901364

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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

Product Features

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



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	720.0 g
Custom tariff number	90303100
Country of origin	Tunisia

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

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

Ambient conditions

Degree of protection	IP52 (front), IP30 (back)
Ambient temperature (operation)	-10 °C ... 55 °C (14 °F to 131 °F)

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Ambient conditions

Ambient temperature (storage/transport)	-20 °C ... 85 °C (-4 °F ... 185 °F)
Max. permissible relative humidity (operation)	≤ 95 %
Max. salt spray content	≤ 2.5 %
Altitude	≤ 2000 m
Ambient temperature (operation)	0 °C ... 40 °C
Max. permissible relative humidity (operation)	80 % (up to 31°C)
	50 % (at 40 °C)

Input data

Measuring principle	True r.m.s. value measurement
Acquisition of harmonics	up to 51st harmonic
Measured value	AC sine (50/60 Hz)
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 %
Input current range	Via external transformers
Input current	9999 A (primary)
	5 A (secondary)
Current measuring range	0 kA ... 11000 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
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
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Interfaces

Designation	Via communication module
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General

Display	LCD display, backlighting
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Technical data

General

Measuring rate	approximately
Supply voltage range	110 V AC ... 400 V AC $\pm 10\%$
Nominal power consumption	5 VA
Power consumption	10 VA (with max. number of extension modules)
Mains type	3-phase (3 or 4-wire), 2-phase (2-wire), and single-phase (1-wire)
Color	black
Conformance	CE-compliant
Rated insulation voltage	300 V AC (EN 61010-1)
Overvoltage category	III
Test voltage	3.5 kV AC (50 Hz, 1 min.)
	2.2 kV AC (50 Hz, 1 min.)

Connection data

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

UL data

Nominal supply voltage range	110 V AC ... 240 V AC $\pm 10\%$
	120 V DC ... 250 V DC $\pm 10\%$
Power consumption	10 VA
Operating mode	Indoor use

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Technical data

UL data

Surge voltages	Transient overvoltage according to installation classes
Overvoltage category	I, II, III
Overvoltage category of the supply	Min. II

Standards and Regulations

Conformance	CE-compliant
UL, USA / Canada	UL 61010-1
	CSA-C22.2 No. 61010-1
	cULus

Classifications

eCl@ss

eCl@ss 4.0	27210902
eCl@ss 4.1	27210902
eCl@ss 5.0	27210902
eCl@ss 5.1	27210902
eCl@ss 6.0	27371890
eCl@ss 7.0	27142333
eCl@ss 8.0	27142333

ETIM

ETIM 3.0	EC001505
ETIM 4.0	EC000705
ETIM 5.0	EC002301

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121535
UNSPSC 11	39121535
UNSPSC 12.01	39121535
UNSPSC 13.2	39121535

Approvals

Approvals

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Approvals

Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed



cUL Listed



EAC

EAC

cULus Listed



Accessories

Accessories

Assembly adapter

DIN rail adapter - EEM-MKT-DRA - 2902078



DIN rail adapter for EEM-MA600 and EEM-MA400 energy meters

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Accessories

Communication module

Communication module - EEM-RS485-MA400 - 2901365



RS-485 JBUS/MODBUS communication module for EEM-MA400

Function module

Special function module - EEM-IMP-MA400 - 2904314



Function module with a pulse or alarm output for the EEM-MA400

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