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 GRM
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

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 ... 11 kA
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 0.5S
Reactive power (IEC 62053-23)	Class 2

Interfaces

Designation	Via extension module

General

Display	LCD display, backlighting
Measuring rate	approximately
Supply voltage range	110 V AC ... 400 V AC ±10 %
Nominal power consumption	5 VA

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General

Power consumption	10 VA (With maximum 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)
Surge voltage 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 stranded min.	0.5 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil 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 stranded min.	0.5 mm²
Conductor cross section stranded max.	6 mm²
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	6 mm²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil 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 ±10 %
	120 V DC ... 250 V DC ±10 %
Power consumption	10 VA
Operating mode	Indoor use
Surge voltages	Surge voltages according to installation classes
Surge voltage category	I, II, III
Surge voltage category of the supply	Min. II

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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	EC000705

UNSPSC

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

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cUL Listed / cULus Listed / cULus Listed / cULus Listed / null / null / null / null

Ex Approvals

Approvals submitted

Approval details

UL Listed

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Approvals

cUL Listed

cUL Listed

cULus Listed

cULus Listed

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Accessories

Accessories

Communication module

Communication module - EEM-RS485-MA400 - 2901365

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

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Accessories

Extension module

Extension module - EEM-IMP-MA400 - 2904314

Pulse output module for EEM-MA400

Mounting material

DIN rail adapter - EEM-MKT-DRA - 2902078

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