

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

Why buy this product

- 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 |
| GTIN |  4 046356 585804 |
| Weight per Piece (excluding packing) | 704.2 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 |
|-------------------------|---|

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) |
| Ambient temperature (storage/transport) | -20 °C ... 85 °C (-4 °F ... 185 °F) |

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Ambient conditions

| | |
|--|--------------------|
| 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 0.5 S |
| Reactive power (IEC 62053-23) | Class 2 |

Output data

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

Interfaces

| | |
|-------------|--------------------------|
| Designation | Via communication module |
|-------------|--------------------------|

General

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

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General

| | |
|--------------------------|---------------------------|
| 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 ±10 % |
| | 120 V DC ... 250 V DC ±10 % |
| Power consumption | 10 VA |
| Operating mode | Indoor use |
| 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 |

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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 | EC002301 |

UNSPSC

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|---------------|----------|
| 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 / EAC / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| |
|---|
| UL Listed  |
|---|

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Approvals

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

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

