

Measuring instrument - EEM-MA250 - 2901363

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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

Your advantages

- RS-485 interface (JBUS/MODBUS)
- Pulse output
- Two-tariff measurement via pulse input



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 585811 |
| GTIN | 4046356585811 |

Technical data

Note

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

Dimensions

| | |
|--------|-------|
| Width | 72 mm |
| Height | 90 mm |
| Depth | 64 mm |

Ambient conditions

| | |
|--|-------------------------------------|
| Ambient temperature (operation) | -10 °C ... 55 °C (14 °F to 131 °F) |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C (-4 °F ... 158 °F) |
| Max. permissible relative humidity (operation) | ≤ 95 % |
| Max. salt spray content | ≤ 2.5 % |
| Degree of protection | IP51 (Front) |
| | IP20 (Back side) |

Measuring instrument - EEM-MA250 - 2901363

Technical data

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 ... 519 V AC (Phase/Phase) 28 V AC ... 300 V AC (Phase/neutral conductor) |
| Precision | 0.2 % |
| Input name | Current measurement I1, I2, I3 |
| Input current range | via external transformers |
| Input current | 9999 A (primary) 5 A (secondary) |
| Overload capacity | 6 A (Permanent) |
| Response threshold from measuring range nominal value | 5 mA |
| Precision | 0.2 % |
| Messbereich_Leistung | 0 kW ... 9999 kW 0 kvar ... 9999 kvar 0 kVA ... 9999 kVA |
| Precision | 0.5 % |
| Active energy (IEC 62053-22) | Class 0.5 S |
| Reactive power (IEC 62053-23) | Class 2 |
| Description of the input | Digital input |
| Number | 1 |
| Voltage input signal | 230 V AC \pm 10 % (Tariff switchover: e.g., day/nighttime tariff) |

Output data

| | |
|---------------------------|---------------------------|
| Output description | Transistor output, active |
| Number | 1 |
| Maximum switching voltage | 30 V DC |
| Current carrying capacity | 27 mA |

Interfaces

| | |
|---------------------------|-----------------------|
| Designation | Modbus RTU/JBUS |
| Interface | RS-485 |
| Connection method | Screw terminal blocks |
| Serial transmission speed | 2,4 ... 38.4 kbps |

General

| | |
|---------------------------|--|
| Display | LCD display, backlighting |
| Measuring rate | approximately |
| Supply voltage range | 110 V AC ... 277 V AC -10 % ... +15 % |
| Nominal power consumption | 5 VA |
| Mains type | 3-phase (3 or 4-wire), 2-phase (2-wire), and single-phase (1-wire) |

Measuring instrument - EEM-MA250 - 2901363

Technical data

General

| | |
|--------------------------|---------------------------|
| Color | black |
| Conformance | CE-compliant |
| Rated insulation voltage | 300 V AC (EN 61010-1) |
| Test voltage | 3.5 kV AC (50 Hz, 1 min.) |
| | 2.2 kV AC (50 Hz, 1 min.) |

UL data

| | |
|--|---|
| Nominal supply voltage range | 110 V AC ... 277 V AC -10 % ... +15 % |
| Operating mode | Indoor use |
| Surge voltages | Transient overvoltage according to installation classes |
| Overvoltage category | I, II, III |
| Overvoltage category of the supply | Min. II |
| Altitude | ≤ 2000 m |
| Ambient temperature (operation) | 5 °C ... 40 °C |
| Max. permissible relative humidity (operation) | 80 % (up to 31 °C) |
| | 50 % (at 40 °C) |

Standards and Regulations

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

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals


Approval details

| | | | |
|-----------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 357804 |
|-----------|---|---|---------------|

Measuring instrument - EEM-MA250 - 2901363

Approvals

| | | | |
|------------|---|---|---------------|
| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 357804 |
|------------|---|---|---------------|

| | | | |
|-----|---|--|--------------------------|
| EAC |  | | RU *- DE.A*30.B.01628 |
|-----|---|--|--------------------------|

| | | | |
|--------------|---|--|--|
| cULus Listed |  | | |
|--------------|---|--|--|

Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>