

Measuring instrument - EEM-MB370-24DC - 1127061


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Multi-functional energy measuring device without display with 24 V DC supply and integrated Modbus/TCP interface for measuring electrical parameters in low-voltage installations up to 690 V



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 063151 055332 |
| GTIN | 4063151055332 |
| Weight per Piece (excluding packing) | 370.000 g |
| Custom tariff number | 90303100 |
| Country of origin | Germany |
| Sales Key | CK4C21 |

Technical data

Dimensions

| | |
|--------|-------|
| Width | 90 mm |
| Height | 80 mm |
| Depth | 64 mm |

Ambient conditions

| | |
|--|-------------------------|
| Ambient temperature (operation) | -10 °C ... 55 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Maximum altitude | ≤ 2000 m |
| Max. permissible relative humidity (operation) | ≤ 95 % (non-condensing) |
| Degree of protection | IP20 (Housing) |

Input data

| | |
|--------------------------|-------------------------------|
| Measuring principle | True r.m.s. value measurement |
| Acquisition of harmonics | up to 63rd harmonic |

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Technical data

Input data

| | |
|---|--|
| Measured value | AC sine (50/60 Hz) |
| Input name | Voltage measuring input V1, V2, V3 |
| Input voltage range | 35 V AC ... 690 V AC (Phase/Phase) |
| | 20 V AC ... 400 V AC (Phase/neutral conductor) |
| | 60 V AC ... 2000000 V AC (primary) |
| | 60 V AC ... 400 V AC (secondary) |
| Surge voltage capacity | 760 V AC (Phase/Phase) |
| Precision | 0.2 % |
| Input name | Current measurement I1, I2, I3 |
| Input current | 1 A (secondary) |
| | 5 A (secondary) |
| Current measuring range | 1 A ... 20000 A (primary) |
| Overload capacity | 6 A (I_{max}) |
| Response threshold from measuring range nominal value | 10 mA (1 A) |
| Precision | 0.2 % |
| Current overload | 50 A for 1 s |
| 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 in accordance with IEC/EN 61131-2 (type 3) |
| Number | 1 |
| Voltage input signal | 0 V DC ... 30 V DC |
| Current input signal | 2 mA ... 15 mA |

Output data

| | |
|-----------------------|---|
| Output description | Digital output in accordance with IEC/EN 61131-2 (type 3) |
| Number | 1 |
| Current output signal | ≤ 100 mA |

Device interface

| | |
|------------------------|-------------------|
| Designation | Network interface |
| Communication protocol | Modbus/TCP |
| | REST |
| Connection method | RJ45 |

General

| | |
|----------------------|---|
| Supply voltage | 24 V DC ±25 % |
| Supply voltage range | 18 V DC ... 30 V DC |
| Power consumption | < 4 W |
| Mains type | 3-phase (3 or 4-conductor), 2-phase (2-conductor), and single-phase (1-conductor) |
| Color | gray |
| Conformance | CE-compliant |

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Technical data

General

| | |
|----------------|-------------------------|
| Test voltage | 4 kV AC (50 Hz, 1 min.) |
| Product family | EMpro |

Connection data

| | |
|----------------------------------|---|
| Connection name | Current / voltage / supply |
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross section solid | 0.2 mm ² ... 6 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG | 24 ... 10 |
| Torque | 0.5 Nm ... 0.6 Nm |

Connection data 2

| | |
|----------------------------------|--|
| Connection name | Digital I/O / communication |
| Connection method | Screw connection |
| Stripping length | 7 mm |
| Screw thread | M3 |
| Conductor cross section solid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section AWG | 26 ... 14 |
| Torque | 0.5 Nm ... 0.6 Nm |

UL data

| | |
|----------------|------------|
| Operating mode | Indoor use |
|----------------|------------|

Standards and Regulations

| | |
|-------------|--------------|
| Conformance | CE-compliant |
|-------------|--------------|

Environmental Product Compliance

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27142330 |
| eCl@ss 11.0 | 27142330 |
| eCl@ss 8.0 | 27142330 |
| eCl@ss 9.0 | 27142330 |

ETIM

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| ETIM 5.0 | EC002301 |
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Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

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

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

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| cULus Listed | | | |
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Accessories

Accessories

Current transformer

Current transformer - PACT MCR-V2-3015-60-PT - 2907413



Window-type current transformer with screw and Push-in connection technology, conductor connection for Push-in: from directly above, no tools required. The following can be selected: primary current (50 ... 750) A AC, secondary current (1 or 5) A AC, accuracy class 0.5 or 1, VA power

Current transformer - PACT MCR-V2-4012-70-PT - 2907414



Window-type current transformer with screw and Push-in connection technology, conductor connection for Push-in: from directly above, no tools required. The following can be selected: primary current (100 ... 1000) A AC, secondary current (1 or 5) A AC, accuracy class 0.5 or 1, VA power

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Accessories

Current transformer - PACT MCR-V2-5012-85-PT - 2907416



Window-type current transformer with screw and Push-in connection technology, conductor connection for Push-in: from directly above, no tools required. The following can be selected: primary current (100 ... 1500) A AC, secondary current (1 or 5) A AC, accuracy class 0.5 or 1, VA power

Current transformer - PACT MCR-V2-6015-85-PT - 2907417



Window-type current transformer with screw and Push-in connection technology, conductor connection for Push-in: from directly above, no tools required. The following can be selected: primary current (200 ... 1600) A AC, secondary current (1 or 5) A AC, accuracy class 0.5 or 1, VA power

Current transformer - PACT MCR-V1-21-44 - 2277268



Bus-bar current transformer, primary current can be selected between 50...500 A AC; secondary current can be selected as 1 A AC or 5 A AC; accuracy class can be selected as 0.5 or 1; rated power can be selected

Current transformer - PACT MCR-V2- 3015- 60 - 2277271



Window-type current transformer, primary current can be selected between 50...750 A AC; secondary current can be selected as 1 A AC or 5 A AC; accuracy class can be selected as 0.5 or 1; rated power can be selected

Current transformer - PACT MCR-V2- 4012- 70 - 2277284



Window-type current transformer, primary current can be selected between 75...1000 A AC; secondary current can be selected as 1 A AC or 5 A AC; accuracy class can be selected as 0.5 or 1; rated power can be selected

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Accessories

Current transformer - PACT MCR-V2- 5012- 85 - 2277297



Window-type current transformer, primary current can be selected between 100...1500 A AC; secondary current can be selected as 1 A AC or 5 A AC; accuracy class can be selected as 0.5 or 1; rated power can be selected

Current transformer - PACT MCR-V2- 6015- 85 - 2277336



Window-type current transformer, primary current can be selected between 200 ... 1,250 A AC; secondary current can be selected as 1 A AC or 5 A AC; accuracy class can be selected as 0.5 or 1; rated power can be selected

Current transformer - PACT MCR-V2-10020-129 - 2277378



Window-type current transformer, primary current can be selected between 800 and 4,000 A AC, secondary current can be selected 1 A AC or 5 A AC, accuracy class can be selected 0.5 or 1, rated power can be selected

Current transformer - PACT MCR-V3-60 - 2277417



Winding current transformer, primary current can be selected between 1...40 A AC; secondary current can be selected as 1 A AC or 5 A AC; accuracy class can be selected as 0.5 or 1; rated power can be selected