

ENERGY METER 610-24**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Energy meters - ValueLine

Advanced functionality of energy data capture

The scope of performance of the ValueLine energy meters goes beyond the core functions of energy measurement.

They are also suitable for determining, storing and visualising further energy quality parameters.

The free "ecoExplorer go" software is available for most types of the product group, on the one hand for device configuration / commissioning / visualisation of the measured values and on the other hand for analysing the power quality.

General ordering data

| | |
|------------|---|
| Version | Power measurement/display for 1-, 3-phase mains |
| Order No. | 2540920000 |
| Type | ENERGY METER 610-24 |
| GTIN (EAN) | 4050118553246 |
| Qty. | 1 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|-------|-----------------|------------|
| Depth | 65 mm | Depth (inches) | 2.559 inch |
| Height | 96 mm | Height (inches) | 3.78 inch |
| Width | 96 mm | Width (inches) | 3.78 inch |
| Net weight | 250 g | | |

Temperatures

| | | | |
|-----------------------|----------------|-----------------------------------|-------------|
| Storage temperature | -25 °C...70 °C | Humidity at storage temperature | 0...90 % RH |
| Operating temperature | -10 °C...55 °C | Humidity at operating temperature | 0 - 75% RH |

Measuring current input

| | | | |
|--------------------------------|---------|--------------------------------|-------|
| Current-measuring channels | 4 | Distortion factor THD-I in % | Yes |
| Harmonics, per order / current | 1.-40. | Measuring accuracy for current | 0.2 % |
| Rated current | 1 / 5 A | Residual current measuring | No |

Measuring voltage input

| | | | |
|------------------------------------|--------|------------------------------------|-------|
| Distortion factor THD-U in % | Yes | Four-wire system | Yes |
| Harmonics, per order / voltage | 1.-40. | Measurement range, voltage L-L, AC | 480 V |
| Measurement range, voltage L-N, AC | 277 V | Measuring accuracy for voltage | 0.2 % |
| Quadrants | 4 | Three-wire system | Yes |

Communication

| | | | |
|-----------|---------------------------------|----------|------------|
| Interface | RS485: 9,6 – 115,2 kbps, USB | Protocol | Modbus RTU |
|-----------|---------------------------------|----------|------------|

Inputs/outputs

| | | | |
|--------------------------|---|---------------------------|----|
| Number of digital inputs | 4 | Number of digital outputs | 6 |
| Number of pulse outputs | 6 | Temperature input | No |

Measurement data recording

| | | | |
|------------------------------------|----------|--------------------------|-----------------|
| Memory; minimum and maximum values | Yes | Memory size | 256 MB |
| Number of memory values | 10,000 k | Update interval register | 200 ms |
| Min. memory recording interval | 60 s | Software | ecoExplorer go® |
| Integrated logic | Yes | | |

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Technical data

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|--|--|---|--|
| Protection degree | IP20, IP40 | Rated current | 1 / 5 A |
| Version | Power measurement/dis- play for 1-, 3-phase mains | Standards | DIN EN 61326, IEC 61010-1, IEC 61010-2-030 |
| Measurement range, voltage L-N, AC | 277 V | Measurement range, voltage L-L, AC | 480 V |
| Surge voltage category | 300 V CAT III | Voltage supply | 24 - 90 V AC (50/60 Hz), 24 - 90 V DC |
| Supply voltage | 24 V | Three-wire system | Yes |
| Four-wire system | Yes | Quadrants | 4 |
| Sampling frequency 50/60 Hz | 25.6 kHz | Continuous measurements | Yes |
| Measurement result per second | 5 ms | Effective value from the period (50/60 Hz) | 10 / 12 |
| Residual current measuring | No | Current-measuring channels | 4 |
| Measuring accuracy for voltage | 0.2 % | Measuring accuracy for current | 0.2 % |
| Measurement accuracy for active energy (kWh, .../5 A) | Class 0.5S | Operating-hours counter | Yes |
| Weekly time switch | No | Clock | Yes |
| Bimetal function | Yes | | |

Voltage quality measurement

| | | | |
|--------------------------------|--------|--------------------------------------|--------|
| Harmonics, per order / voltage | 1.-40. | Harmonics, per order / current | 1.-40. |
| Distortion factor THD-U in % | Yes | Distortion factor THD-I in % | Yes |
| Unbalanced | No | Positive, negative and zero system | Yes |
| Brief interruptions | No | Sequence-of-events recorder function | No |

Insulation coordination

| | |
|------------------------|---------------|
| Surge voltage category | 300 V CAT III |
|------------------------|---------------|

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002301 | ETIM 7.0 | EC002301 |
| ETIM 8.0 | EC002301 | ETIM 9.0 | EC002301 |
| ECLASS 9.0 | 27-14-23-30 | ECLASS 9.1 | 27-21-03-01 |
| ECLASS 10.0 | 27-14-23-30 | ECLASS 11.0 | 27-14-23-30 |
| ECLASS 12.0 | 27-14-23-30 | ECLASS 13.0 | 27-14-23-30 |

Approvals

Approvals



| | |
|-------------------------|------------|
| Approvals | CE |
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E469563 |

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| | |
|---|--|
| Approval/Certificate/Document of Conformity | KC-Certification Application notes – Declaration of Conformity |
| Engineering Data | CAD data – STEP |
| Software | Device description – MODBUS address list Runtime Software – GSD DATA Win64 - ecoExplorer go Driver – USB File |
| User Documentation | Quick start guide – Quick Guide German/English Application notes – Manual ECOEXPLORER GO English Application notes – Manual Energy Meter 610 PB German/English |
| Catalogues | Catalogues in PDF-format |

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Drawings**Dimensioned drawing**