

ENERGY METER 520-24

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	Supply voltage : 24 V
Order No.	2500860000
Type	ENERGY METER 520-24
GTIN (EAN)	4050118514056
Qty.	1 pc(s).

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Catalogue status 09.09.2022 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	48 mm	Depth (inches)	1.89 inch
Height	96 mm	Height (inches)	3.78 inch
Width	96 mm	Width (inches)	3.78 inch
Net weight	265 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	3	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	Protocol	Modbus RTU
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Inputs/outputs

Number of digital outputs	2	Number of pulse outputs	2
Temperature input	No		

Measurement data recording

Memory; minimum and maximum values	Yes	Update interval register	200 ms
Software	ecoExplorer go®	Integrated logic	Yes

Technical data

Protection degree	IP20, IP40	Rated current	1 / 5 A
Standards	EN 61326-1, 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
Effective value from the period (50/60 Hz)	10 / 12	Residual current measuring	No
Current-measuring channels	3	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	Bimetal function	Yes

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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
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Classifications

ETIM 6.0	EC002301	ETIM 7.0	EC002301
ETIM 8.0	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

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	CAD data – STEP
Software	Device description – MODBUS address list Runtime Software – Win64 - ecoExplorer go
User Documentation	Quick Guide German/English Manual ECOEXPLORER GO English Manual Energy Meter 520 German/English
Catalogues	Catalogues in PDF-format

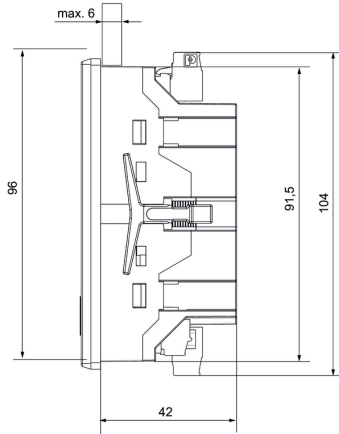
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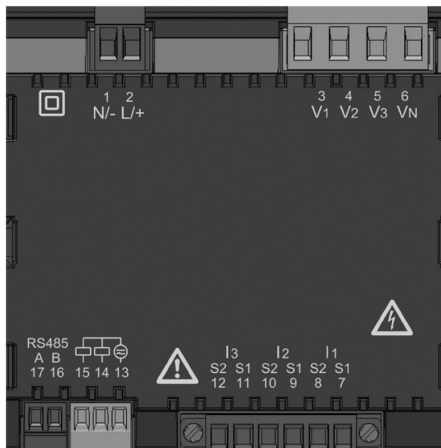
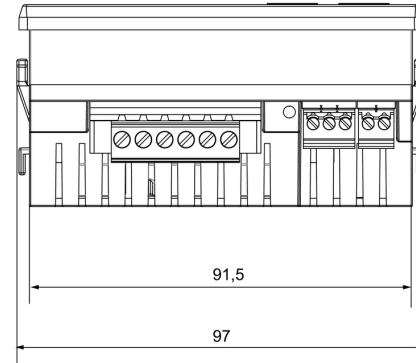
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Drawings

Dimensioned drawing



Dimensioned drawing



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[200/400A-96X96MM](#) [MT4W-AV-4N](#) [MT4W-DA-4N](#) [MT4W-DV-4N](#) [DMG 100](#) [DMG 110](#) [DMK 01 R1](#) [DMK 22](#) [DMK 70 R1](#) [DPM3AS-](#)
[BL](#) [EMA1710](#)