

ENERGY METER 525-24**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.	2540880000
Type	ENERGY METER 525-24
GTIN (EAN)	4050118553208
Qty.	1 pc(s).

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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	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	3	Distortion factor THD-I in %	Yes
Harmonics, per order / current	1..40.	Housing main material	Plastic
Max. current	5000 A	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.	Low voltage network	3 phase 4 wire (L1 + L2 + L3 + N), 3 phase 3 wire (L1 + L2 + L3)
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	Ethernet	Protocol	Modbus/TCP, Modbus RTU over Ethernet
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Inputs/outputs

Number of digital inputs	0	Number of digital outputs	0
Temperature input	No		

Measurement data recording

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

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Display monitoring (monitor)	LCD	Max. current	5000 A
Protection degree	IP20, IP40	Rated current	1 / 5 A
Type of mounting	Frontpanel mounting	Version	Power measurement/dis- play for 1-, 3-phase mains
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 ms
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	Weekly time switch	No
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
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Classifications

ETIM 6.0	EC002301	ETIM 7.0	EC002301
ETIM 8.0	EC002301	ETIM 9.0	EC002301
ETIM 10.0	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	ECLASS 14.0	27-14-23-30
ECLASS 15.0	27-14-23-30		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

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Approvals



Approvals	CE
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E469563

Downloads

Approval/Certificate/Document of Conformity	Application notes – Declaration of Conformity
Engineering Data	CAD data – STEP
Software	Runtime Software – MODBUS address list Win64 - ecoExplorer go
User Documentation	Quick start guide – Quick Guide German/English Application notes – Manual Energy Meter 525 German English Manual ecoExplorer go English
Catalogues	Catalogues in PDF-format

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Drawings

Dimensioned drawing

