

ENERGY METER 520-230

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.	2500880000
Type	ENERGY METER 520-230
GTIN (EAN)	4050118513936
Qty.	1 items

ENERGY METER 520-230

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data

Approvals

Approvals	CE; CULUS
Approvals	CE
Approvals	



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

Dimensions and weights

Depth	48 mm	Depth (inches)	1.8898 inch
Height	96 mm	Height (inches)	3.7795 inch
Width	96 mm	Width (inches)	3.7795 inch
Net weight	265 g		

Temperatures

Storage temperature	-40 °C...70 °C	Humidity at storage temperature	0...90 % (no condensation)
Operating temperature	-10 °C...55 °C	Humidity at operating temperature	0...90 % (no condensation)

Environmental Product Compliance

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

Measuring current input

Housing main material	Plastic	Rated current	1 / 5 A
Current-measuring channels	3	Measuring accuracy for current	0.2 %
Residual current measuring	No	Harmonics, per order / current	1.-40.
Distortion factor THD-I in %	Yes	Max. current	5000 A

Measuring voltage input

Low voltage network	3 phase 3 wire (L1 + L2 + L3), 3 phase 4 wire (L1 + L2 + L3 + N)	Measuring accuracy for voltage	0.2 %
Three-wire system	Yes	Quadrants	4
Harmonics, per order / voltage	1.-40.	Distortion factor THD-U in %	Yes
Measurement range, voltage L-L, AC	480 V	Measurement range, voltage L-N, AC	277 V
Four-wire system	Yes		

Communication

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

Inputs/outputs

Number of digital inputs	0	Number of digital outputs	2
Number of pulse outputs	2	Temperature input	No

ENERGY METER 520-230

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Measurement data recording

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

Technical data

Version	Power measurement/ display for 1-, 3-phase mains	Type of mounting	Frontpanel mounting
Protection degree	IP40, IP20	Rated current	1 / 5 A
Max. current	5000 A	Display monitoring (monitor)	LCD
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
Supply voltage	90 - 277 V AC (50/60 Hz), 90 - 250 V DC	Supply voltage	230 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 Class 0.5S (kWh, .../5 A)	
Operating-hours counter	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
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		

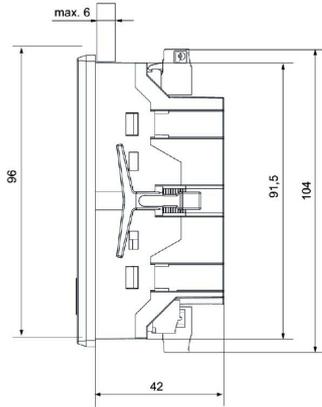
ENERGY METER 520-230

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

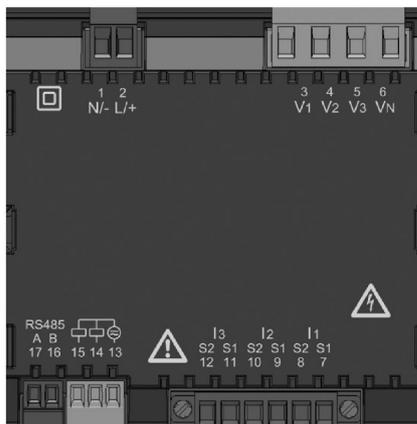
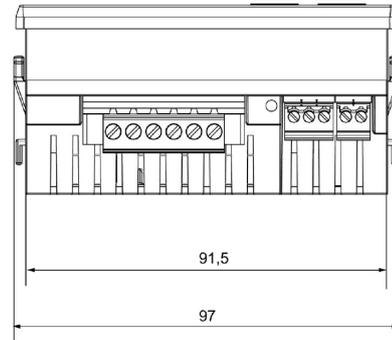
www.weidmueller.com

Drawings

Dimensioned drawing



Dimensioned drawing



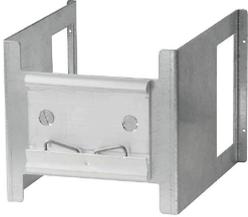
ENERGY METER 520-230

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

Accessories

www.weidmueller.com

Accessories



General ordering data

Type	ENERGY METER BRACKET S2	Version	
Order No.	2433070000		
GTIN (EAN)	4050118446395		
Qty.	1 ST		
Type	ENERGY METER SEAL L96-2	Version	
Order No.	2495610000		
GTIN (EAN)	4050118505931		
Qty.	1 ST		
Type	ENERGY METER FIXING SET	Version	
Order No.	2433030000		
GTIN (EAN)	4050118446401		
Qty.	1 ST		