

ENERGY ANALYSER D550-24

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

www.weidmueller.com



Energy analysers

More and more non-linear consumers and plant components are finding their way into production facilities. They influence, for example, mains frequency, phase shift and amplitudes of the phases.

This has an influence on the quality of the electrical energy and thus on plant availability.

The energy analysers measure all quality parameters - from the parameters of symmetry to transients - and many more.

After comprehensive testing, optimisation steps can then be initiated to maximise the efficiency and availability of the plants.

General ordering data

Order No.	2489780000
Type	ENERGY ANALYSER D550-24
GTIN (EAN)	4050118499803
Qty.	1 items

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Technical data

Approvals

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ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E469563

Dimensions and weights

Depth	46 mm	Depth (inches)	1.811 inch
Height	90 mm	Height (inches)	3.5433 inch
Width	107.5 mm	Width (inches)	4.2323 inch
Net weight	265 g		

Temperatures

Storage temperature	-25 °C...70 °C	Operating temperature	-10 °C...55 °C
Humidity at operating temperature	5...95 % RH		

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	4	Measuring accuracy for current	0.25 %
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 4 wire (L1 + L2 + L3 + N), 3 phase 3 wire (L1 + L2 + L3)	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	RS232: 9.6 – 115.2 kbps, RS485: 9.6 – 921.6 kbps, Ethernet, Web server/e-mail	Protocol	Modbus RTU, Modbus-Gateway, Modbus TCP/IP, Modbus RTU over Ethernet, SNMP, BACnet (optional)
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Inputs/outputs

Number of digital inputs	2	Number of digital outputs	2
Number of pulse outputs	2	Temperature input	Yes

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Measurement data recording

Memory; minimum and maximum values	Yes	Memory size	128 MB
Number of memory values	5000 k	Update interval register	200 ms
Min. memory recording interval	60.00 s	Software	ecoExplorer go®
Integrated logic	Yes		

Technical data

Version	Power measurement/ display for 1-, 3-phase mains	Input frequency	<20 Hz
Type of mounting	DIN rail	Protection degree	IP20
Rated current	1 / 5 A	Max. current	5000 A
Display monitoring (monitor)	LCD	Standards	DIN EN 61000-4-2, DIN EN 61000-4-3, DIN EN 61000-4-4, DIN EN 61000-4-5, DIN EN 61000-4-6, DIN EN 61000-4-8, DIN EN 61326-1, EN 61000-4-11, EN 55011, 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	20 ... 50 V AC ±10%, 20 ... 70 V DC ±10%
Three-wire system	Yes	Four-wire system	Yes
Quadrants	4	Sampling frequency 50/60 Hz	20 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	0.25 %	Measurement accuracy for active energy Class 0.5S (kWh, .../5 A)	
Operating-hours counter	Yes	Weekly time switch	Yes
Clock	Yes	Bimetal function	Yes
Peak load optimisation	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	Yes	Positive, negative and zero system	Yes
Brief interruptions	Yes	Sequence-of-events recorder function	Yes

Insulation coordination

Surge voltage category	300 V CAT III
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Classifications

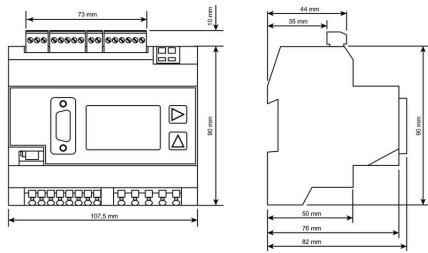
ETIM 8.0	EC002301	ETIM 9.0	EC002301
ETIM 10.0	EC002301	ECLASS 14.0	27-14-23-30
ECLASS 15.0	27-14-23-30		

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Drawings

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Accessories**Plug-on current transformer - ValueLine****Plug-on current transformers**

Plug-on current transformers are used wherever high currents of up to 5000A need to be measured and processed. Our plug-on current transformers supply secondary currents of 1A or 5A. Weidmüller also offers compact low-power current transformers to convert currents of up to 600 A to voltages of up to 333 mV.

General ordering data

Type	CMA-31-100-5A-2,5VA-1	Version	
Order No.	1482030000	Primary current: 100 A, Secondary current max.: 5 A, Load: 2.5 VA,	
GTIN (EAN)	4050118290943	Tolerance class: 1, closed current transformer	
Qty.	1 ST		