

ENERGY ANALYSER D550

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.	2425510000
Type	ENERGY ANALYSER D550
GTIN (EAN)	4050118433487
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	46 mm	Depth (inches)	1.811 inch
Height	90 mm	Height (inches)	3.543 inch
Width	107.5 mm	Width (inches)	4.232 inch
Net weight	350 g		

Temperatures

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

Measuring current input

Current-measuring channels	4	Distortion factor THD-I in %	Yes
Harmonics, per order / current	1-40.	Housing main material	Plastic
Max. current	5000 A	Measuring accuracy for current	0.25 %
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	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

Measurement data recording

Memory; minimum and maximum values	Yes	Memory size	128 MB
Number of memory values	5,000 k	Update interval register	200 ms
Min. memory recording interval	60 s	Software	ecoExplorer go®
Integrated logic	Yes		

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Display monitoring (monitor)	LCD	Input frequency	<20 Hz
Max. current	5000 A	Protection degree	IP20
Rated current	1 / 5 A	Type of mounting	DIN rail
Version		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
	Power measurement/dis- play for 1-, 3-phase mains	Measurement range, voltage L-L, AC	480 V
Measurement range, voltage L-N, AC	277 V	Voltage supply	95 - 240 V AC, 135 - 340 V DC
Surge voltage category	300 V CAT III	Four-wire system	Yes
Three-wire system	Yes	Sampling frequency 50/60 Hz	20 kHz
Quadrants	4	Measurement result per second	5 ms
Continuous measurements	Yes	Residual current measuring	No
Effective value from the period (50/60 Hz)	10 / 12	Measuring accuracy for voltage	0.2 %
Current-measuring channels	4	Measurement accuracy for active energy (kWh, .../5 A)	Class 0.5S
Measuring accuracy for current	0.25 %	Weekly time switch	Yes
Operating-hours counter	Yes	Bimetal function	Yes
Clock	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 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 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	Device description – MODBUS Adressenliste Win64 - ecoExplorer go
User Documentation	Manual Energy Analyser D550 German/Englisch Quick Guide German/English Manual ecoExplorer go English
Catalogues	Catalogues in PDF-format

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Drawings

