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 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	265 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.	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.	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)

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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Input frequency	<20 Hz	Rated current	1 / 5 A
Version	Power measurement/display for 1-, 3-phase mains	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	Voltage supply	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 (kWh, .../5 A)	Class 0.5S
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

Classifications

ETIM 6.0	EC002301	ETIM 7.0	EC002301
ETIM 8.0	EC002301	ETIM 9.0	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

Approvals

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

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Downloads

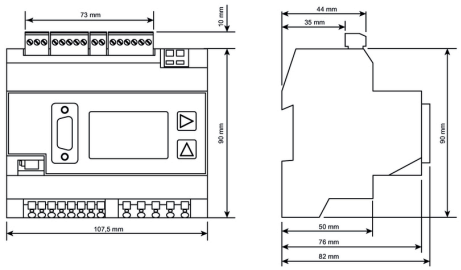
Approval/Certificate/Document of Conformity	CE PAPER.pdf Application notes – Declaration of Conformity
Engineering Data	CAD data – STEP
Software	Device description – MODBUS Adressenliste Runtime Software – Win64 - ecoExplorer go
User Documentation	Manual Energy Analyser D550 German/Englisch Quick Guide German/English Application notes – Manual ECOEXPLORER GO English
Catalogues	Catalogues in PDF-format

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Drawings



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Accessories

Plug-on current transformer - ValueLine



Plug-on current transformers
Plug-on current transformers are especially suitable for mounting on the busbar.
The advantages of this type are: screwless connection technology with tension clamp connection, time-saving connection option for solid and flexible conductors, shock-resistant and vibration-proof, high mechanical holding forces and high current resistance.

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 pc(s).	