

PROeco
PRO ECO3 960W 24V 40A
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

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Fax: +49 5231 14-292083

www.weidmueller.com



You are looking for a reliable power supply with basic functions.

With PROeco we can offer you low-cost switch-mode power supply units with

high efficiency and system capability. Let's connect.

In the series production of machines, in particular, switch-mode power supply units with

above-average performance values can deliver genuine competitive advantages.

The low-cost PROeco series offers all the basic functions and delivers impressively

high performance and flexibility.

Our PROeco switch-mode power supply units feature a compact design, high

efficiency and are extremely easy to maintain. Thanks to temperature protection,

short-circuit and overload resistance they can be universally used in all

applications.

Wide-ranging safety functions and compatibility with our diode and capacitance modules, together with UPS

components for setting up a

redundant power supply, characterise solutions with PROeco.

General ordering data

Type	PRO ECO3 960W 24V 40A
Order No.	1469560000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118275728
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	160 mm	Width (inches)	6.299 inch
Height	125 mm	Height (inches)	4.921 inch
Depth	120 mm	Depth (inches)	4.724 inch
Net weight	2,899 g		

Temperatures

Operating temperature, max.	70 °C	Operating temperature, min.	-25 °C
Storage temperature, max.	85 °C	Storage temperature, min.	-40 °C
Operating temperature	-25 °C...70 °C	Storage temperature	-40 °C...85 °C

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Rated data UL

Certificate No. (cURus)	E255651	Altitude	≤ 3000 m
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Input

AC current consumption	2,15 A @ 3 x 500 V AC / 2,68 A @ 3 x 400 V AC	AC input voltage range	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC
Connection system	Screw connection	DC current consumption	1,37 A @ 800 V DC / 2,37 A @ 450 V DC
DC input voltage range	450...800 V DC (max. 500 V DC acc. to UL508)	Frequency range AC	47...63 Hz
Input frequency	47...63 Hz	Input fuse (internal)	Yes
Inrush current	max. 40 A	Rated input voltage	3 x 400...3 x 500 V AC (wide-range input)
Recommended back-up fuse	6 A / DI, safety fuse 10 A, Char. B, circuit breaker 6...8 A, Char. C, circuit breaker	Surge protection	Varistor

Output

Capacitive load	unrestricted	Connection system	Screw connection
Continuous output current @ U _{Nominal}	40 A @ 50 °C, 24 A @ 70 °C	Nominal output current for U _{nom}	40 A @ 50 °C
Output power	960 W	Output voltage	24 V
Output voltage	22...28 V (adjustable via potentiometer)	Overload protection	Yes
Parallel connection option	yes, max. 3	Protection against inverse voltage	Yes
Ramp-up time	≤ 100 ms	Rated output voltage	24 V DC ± 1 %
Residual ripple, breaking spikes	< 50 mV _{pp} @ 24 V DC, I _N		

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Technical data
General data

AC failure bridging time @ I _{nom}	> 25 ms at 3 x 500 V AC / > 20 ms at 3 x 400 V AC	Degree of efficiency	90%
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
Indication	Green LED (U _{output} > 21.6 V DC), Yellow LED (I _{output} > 90 % I _{Rated} typ.), red LED (overload, overtemperature, short-circuit, U _{output} < 20.4 V DC)	MTBF	> 500,000 h in accordance with IEC 61709 (SN29500)
Max. perm. air humidity (operational)	5 %...95 % RH	Mounting position, installation notice	on terminal rail TS 35
Operating temperature	-25 °C...70 °C	Power factor (approx.)	> 0.55 @ 3 x 500 V AC / > 0.65 @ 3 x 400 V AC
Power loss, idling	5 W	Power loss, nominal load	95 W
Protection against over-heating	Yes	Protection degree	IP20
Short-circuit protection	Yes		

EMC / shock / vibration

Limiting of mains voltage harmonic currents	According to EN 61000-3-2	Noise emission in accordance with EN55032	Class B
Vibration resistance IEC 60068-2-6		Interference immunity test acc. to	EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (burst), EN 61000-4-5 (surge), EN 61000-4-6 (conducted), EN61000-4-8 (Fields), EN61000-4-11 (Dips)
	1 g according to EN 50178		
Shock resistance IEC 60068-2-27	15 g In all directions		

Insulation coordination

Insulation voltage input / earth	2 kV	Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	3 kV	Pollution severity	2
Protection class	I, with PE connection		

Electrical safety (applied standards)

Electrical machine equipment	Acc. to EN60204	For use with electronic equipment	Acc. to EN50178 / VDE0160
Protection against dangerous shock currents	Acc. to VDE0106-101	Protective separation / protection against electrical shock	VDE0100-410 / acc. to DIN57100-410
Safety extra-low voltage	SELV according to EN 60950, PELV according to EN 60204	Safety transformers for switch-mode power supplies	According to EN 61558-2-16

Connection data (input)

Conductor cross-section, AWG/kcmil, max.	12	Conductor cross-section, AWG/kcmil, min.	26
Conductor cross-section, flexible, min.	0.5 mm ²	Conductor cross-section, rigid, max.	6 mm ²
Conductor cross-section, rigid, min.	0.5 mm ²	Connection system	Screw connection
Number of terminals	4 for L1/L2/L3/PE	Tightening torque, max.	0.6 Nm
Tightening torque, min.	0.5 Nm	Wire connection cross section, flexible (input), max.	2.5 mm ²

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Technical data**Connection data (output)**

Conductor cross-section, AWG/kcmil , max.	8	Conductor cross-section, AWG/kcmil , min.	22
Conductor cross-section, flexible , max.	10 mm ²	Conductor cross-section, flexible , min.	2.5 mm ²
Conductor cross-section, rigid , max.	16 mm ²	Conductor cross-section, rigid , min.	0.5 mm ²
Connection system	Screw connection	Number of terminals	7 (+,-,13,14)
Tightening torque, max.	0.6 Nm	Tightening torque, min.	0.5 Nm

Signalling

Contact load (NO contact)	max. 30 V DC / 1 A	Floating contact	Yes
Relay on/off	Output voltage >21.6 V DC / <20.4 V DC, overload		

Approvals

Institute (cULus)		Certificate no. (cULus)	
Institute (cURus)		Certificate No. (cURus)	E258476
			E255651

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

Approvals

Approvals	    
ROHS	Conform

Downloads

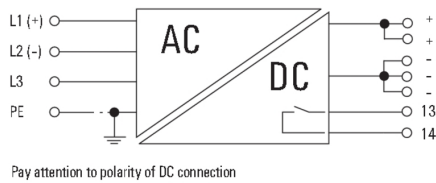
Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Operating instructions

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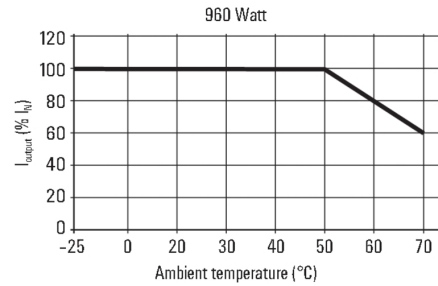
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Drawings

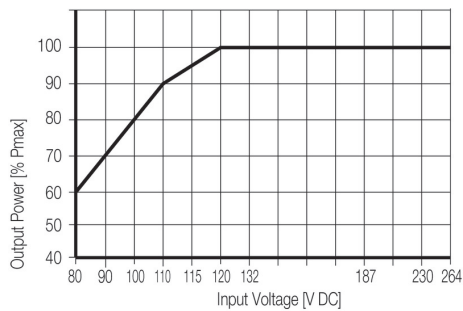
Electric symbol



Derating curve



Derating curve



Derating curve

