

**PRO ECO 960W 24V 40A**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 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 ECO 960W 24V 40A
Order No.	<a href="#">1469520000</a>
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118275704
Qty.	1 pc(s).

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## Technische Daten

### Dimensions and weights

Width	160 mm	Height	125 mm
Depth	120 mm	Net weight	3,019 g

### Temperatures

Operating temperature	-25 °C...+70 °C	Storage temperature	-40 °C...+85 °C
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### Input

AC current consumption	4,6 A @ 230 V AC / 9,9 A @ 110 V AC	AC input voltage range	85...264 V AC (Derating @ 100 V AC)
Connection system [Input]	Screw connection	DC current consumption	2,9 A @ 370 V DC / 9 A @ 120 V DC
DC input voltage range	80...370 V DC (Derating @ 120 V DC)	Frequency range AC	47...63 Hz
Input frequency	47...63 Hz	Input fuse (internal)	Yes
Inrush current	max. 5 A	Rated input voltage	100...240 V AC (wide-range input)
Recommended back-up fuse	16 A / DI, safety fuse 20 A, Char. B, circuit breaker 16 A, Char. C, circuit breaker		

### output

Capacitive load	unrestricted	Connection system [Output]	Screw connection
Continuous output current @ $U_{Rated}$	40 A @ 50 °C, 24 A @ 70 °C	Output voltage	24 V
Output voltage	22...28 V (adjustable via potentiometer)	Overload protection	Yes
Parallel connection option	yes, max. 3	Power boost @ $U_{Rated}$	48 A for 1 min, ED = 5 %
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated (nominal) output current @ $U_{Nom}$	40 A @ 50 °C	Rated output voltage	24 V DC ± 1 %
Residual ripple, breaking spikes	< 50 mV <sub>SS</sub> @ 24 V DC, $I_N$		

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## Technische Daten

### General data

AC failure bridging time @ I <sub>Nom</sub>	> 100 ms @ 230 V AC / > 20 ms @ 115 V AC	Degree of efficiency	93%
Earth leakage current, max.	1 mA	Housing version	Metal, corrosion resistant
Indication	LED green (U <sub>output</sub> > 21.6 V DC), LED yellow (I <sub>output</sub> > 90% I <sub>Rated</sub> typ. ), LED red (overload, overtemperature, short-circuit, U <sub>output</sub> < 20.4 V DC)	MTBF	> 500,000 h acc. to IEC 1709 (SN29500)
Max. perm. air humidity (operational)	5 %...95 % RH	Mounting position, installation notice	Horizontal on TS35 mounting rail, with 50 mm of clearance at top and bottom for air circulation. Can be mounted side by side with no space in between.
Operating temperature	-25 °C...+70 °C	Power factor (approx.)	> 0.98 @ 230 V AC / > 0.98 @ 115 V AC
Power loss	6 W / 76 W	Protection against over-heating	Yes
Short-circuit protection	Yes		

### EMC / shock / vibration

Limiting of mains voltage harmonic currents	in accordance with EN 61000-3-2	Noise emission acc. to EN5022	Class B
Vibration resistance IEC 60068-2-6	1 g according to EN50178	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)
Shock resistance IEC 60068-2-27	15 g In all directions		

### Insulation coordination

Class of protection	I, with PE connection	Insulation voltage input earth	2 kV
Insulation voltage output earth	0.5 kV	Insulation voltage, inputoutput	3 kV
Pollution severity	2		

### 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 acc. to EN60950, PELV acc. to EN60204	Safety transformers for switch-mode power supplies	Acc. to EN 61558-2-17

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## Technische Daten

### Connection data (input)

Conductor cross-section, AWGcmil , max.	12	Conductor cross-section, AWGcmil , min.	26
Conductor cross-section, flexible , min.	0.5 mm <sup>2</sup>	Conductor cross-section, rigid , max.	6 mm <sup>2</sup>
Conductor cross-section, rigid , min.	0.5 mm <sup>2</sup>	Connection system [Input]	Screw connection
Number of terminals [Input]	3 for L/N/PE	Tightening torque, max.	0.6 Nm
Tightening torque, min.	0.5 Nm	Wire connection cross section, flexible (input), max.	2.5 mm <sup>2</sup>

### Connection data (output)

Conductor cross-section, AWGcmil , max.	8	Conductor cross-section, AWGcmil , min.	22
Conductor cross-section, flexible , max.	10 mm <sup>2</sup>	Conductor cross-section, flexible , min.	2.5 mm <sup>2</sup>
Conductor cross-section, rigid , max.	16 mm <sup>2</sup>	Conductor cross-section, rigid , min.	0.5 mm <sup>2</sup>
Connection system [Output]	Screw connection	Number of terminals [Output]	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 onff	Output voltage > 21.6 V / < 20.4 V		

### Approvals

Institute (cULus)



Certificate no. (cULus)

E258476

### Classifications

eClass 6.2 27-04-90-04

### Product information

Descriptive text ordering data The internal varistor found in a switch-mode power supply does not replace the need for surge protection within a system.

### Approvals

Approvals



ROHS

Conform

### Downloads

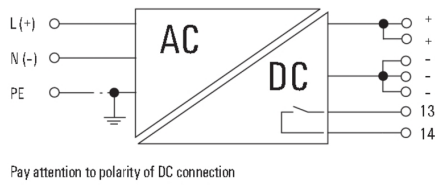
Package insert [Operating instructions](#)  
 Declaration of Conformity [K562\\_01\\_14.pdf](#)

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## Zeichnungen

### Electric symbol



### Derating curve

