

PRO ECO 960W 24V 40A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

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

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	1469520000
Type	PRO ECO 960W 24V 40A
GTIN (EAN)	4050118275704
Qty.	1 pc(s).

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

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data
Dimensions and weights

Depth	120 mm	Depth (inches)	4.724 inch
Height	125 mm	Height (inches)	4.921 inch
Width	160 mm	Width (inches)	6.299 inch
Net weight	3,190 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
---------------------	----------------	-----------------------	----------------

Probability of failure

SIL in compliance with IEC 61508	None
----------------------------------	------

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
------------	----------------

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 at 100 V AC)
Connection system	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	Surge protection	Varistor

Output

Capacitive load	unrestricted	Connection system	Screw connection
Nominal output current for U_{nom}	40 A @ 50 °C	Output power	960 W
Output voltage, max.	28 V	Output voltage, min.	22 V
Output voltage, note	(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		

PRO ECO 960W 24V 40A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

General data

AC failure bridging time @ I_{nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC	Degree of efficiency	93%
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)	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.)	> 0.98...230 V AC / > 0.98...115 V AC	Protection against over-heating	Yes
Protection against reverse voltages from the load	30...35 V DC	Short-circuit protection	Yes

EMC / shock / vibration

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)	Limiting of mains voltage harmonic currents	According to EN 61000-3-2
Noise emission in accordance with EN55032	Class B	Shock resistance IEC 60068-2-27	15 g In all directions
Vibration resistance IEC 60068-2-6	1 g according to EN 50178		

Insulation coordination

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 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
Wire connection cross section, flexible (input), max.	2.5 mm ²		

PRO ECO 960W 24V 40A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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)

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

Certificate no. (cULus)	E258476	Institute (cULus)	CULUS
-------------------------	---------	-------------------	-------

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
ETIM 8.0	EC002540	ECLASS 9.0	27-04-07-01
ECLASS 9.1	27-04-07-01	ECLASS 10.0	27-04-07-01
ECLASS 11.0	27-04-07-01		

Approvals

Approvals



ROHS	Conform
UL File Number Search	E258476

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Operating instructions
Catalogues	Catalogues in PDF-format

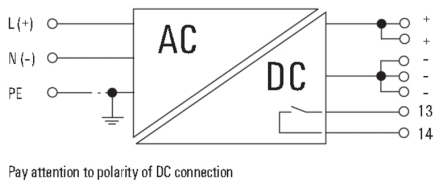
PRO ECO 960W 24V 40A

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

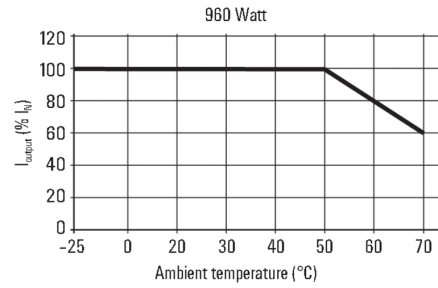
www.weidmueller.com

Drawings

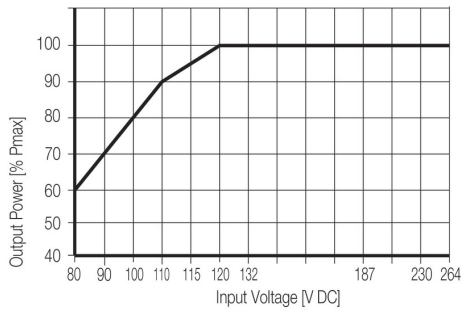
Electric symbol



Derating curve



Derating curve



Derating curve

