

PRO TOP1 960W 24V 40A EX

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

www.weidmueller.com



Production processes constantly need to be made more efficient. As well as performance, energy efficiency and sustainability are also playing an increasingly important role in cutting-edge industry. PROtop power supplies combine excellent performance data with exemplary sustainability, which has a positive impact on the productivity of the entire production facility. PROtop offers a number of advantages that give you a real competitive edge. These include the permanent reduction of energy costs thanks to high efficiencies as well as the increase in plant availability due to long service life and high MTBF values. In addition, there is a high functional density due to the extremely spacesaving designs.

PROtop can achieve significant savings compared to conventional power supply units. Its increased efficiency saves an average of 50 kWh per day in a medium-sized production facility with approx. 100 PROtop power supplies working in three-shift operation. This adds up to over 15,000 kWh a year and also improves the facility's carbon footprint. The service life, which is twice as long as that of standard power supplies, also sustainably reduces the costs of repurchase and exchange.

General ordering data

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	2467010000
Type	PRO TOP1 960W 24V 40A EX
GTIN (EAN)	4050118481914
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Depth	125 mm	Depth (inches)	4.921 inch
Height	130 mm	Height (inches)	5.118 inch
Width	139 mm	Width (inches)	5.472 inch
Net weight	3,382 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-40 °C...70 °C
Operating temperature, min.	-40 °C	Operating temperature, max.	70 °C
Humidity at operating temperature	5...100 % no condensation		

Input

AC input voltage range	85...277 V AC		
Connection system	Clamping yoke		
Current consumption in relation to the input voltage	Voltage type	AC	
	Input voltage	100 V	
	Input current	12 A	
	Voltage type	DC	
	Input voltage	120 V	
	Input current	12 A	
DC input voltage range	80 ... 410 V DC		
Frequency range AC	45...65 Hz		
Input fuse (internal)	Yes		
Inrush current	max. 15 A		
Nominal power consumption	1,021 W		
Rated input voltage	110...240 V AC / 120...340 V DC		
Recommended back-up fuse	16 A, DI / 16 A, Char. B / 16 A, Char C		
Surge protection	Varistor		

Output

Connection system	Clamping yoke connection		
DCL - peak load reserve	Boost duration	5 s	
	Multiple of the rated current	150 %	
	Boost duration	15 ms	
	Multiple of the rated current	400 %	
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC		
Nominal output current for U_{nom}	40 A @ 60 °C		
Output power	960 W		
Output voltage, max.	28.8 V		
Output voltage, min.	22.5 V		
Output voltage, note	adjustable with potentiometer or communication module		
Parallel connection option	yes, max 10		
Protection against inverse voltage	Yes		
Ramp-up time	≤ 100 ms		
Rated output voltage	24 V DC ± 1 %		
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn} , Full Load		

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AC failure bridging time @ I_{nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC	Conformal coating	Yes
Degree of efficiency	94%	Derating	> 60°C (2.5% / 1°C)
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
Mounting position, installation notice	Horizontal on DIN rail TS 35, top and bottom 50 mm clearance for free air flow, 10 mm clearance to neighbouring active subassemblies with full load, 5 mm with passive neighbouring subassemblies, direct row mounting with 90% rated load	Power factor (approx.)	> 0.9
Power loss, idling	5 W	Power loss, nominal load	61.3 W
Protection degree	IP20	Short-circuit protection	Yes, internal
Surge voltage category	III, II		

EMC / shock / vibration

Interference immunity test acc. to	EN 55032:2015, EN 55024:2010/A1:2015, EN 55035:2017, EN 61000-3-2:2014, EN 61000-6-1:2007, EN 61000-6-2:2005, EN 61000-6-3:2007/ A1:2011, EN 61000-6-4:2007/ A1:2011	Noise emission in accordance with EN55032	Class B
Shock resistance IEC 60068-2-27	30 g in all directions	Vibration resistance IEC 60068-2-6	2.3 g (on DIN rail), 4 g (with direct mounting)

Insulation coordination

Insulation voltage input / earth	3.2 kV	Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	3.5 kV	Pollution severity	2
Protection class	I, with PE connection	Surge voltage category	III, II

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 IEC 60950-1, PELV according to EN 60204-1	Safety transformers for switch-mode power supplies	According to EN 61558-2-16

Connection data (input)

Conductor cross-section, AWG/kcmil, max.	10	Conductor cross-section, AWG/kcmil, min.	26
Conductor cross-section, flexible, min.	0.22 mm ²	Conductor cross-section, rigid, max.	6 mm ²
Conductor cross-section, rigid, min.	0.18 mm ²	Connection system	Clamping yoke
Wire connection cross section, flexible (input), max.	4 mm ²		

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Catalogue status 04.08.2023 / We reserve the right to make technical changes.

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Connection data (output)

Conductor cross-section, AWG/kcmil , max.	6	Conductor cross-section, AWG/kcmil , min.	22
Conductor cross-section, flexible , max.	16 mm ²	Conductor cross-section, flexible , min.	6 mm ²
Conductor cross-section, rigid , max.	16 mm ²	Conductor cross-section, rigid , min.	0.2 mm ²
Connection system	Clamping yoke connection	Number of terminals	5 (+ + / ---)

Connection data (signal)

Wire connection method	Screw connection	Wire cross-section, AWG/kcmil , max.	16
Wire cross-section, AWG/kcmil , min.	28	Wire cross-section, solid , max.	1.5 mm ²
Wire cross-section, solid , min.	0.2 mm ²		

Signalling

Floating contact	LED green/red	Green: Operation (failure-free), Flashing green: advance warning I>90%, Green/red flashing: output switched off (switch-off mode), Flashing red: overload/error
Status relay (max. load)	Yes Output voltage OK (30 V DC / 1 A)	

Approbations

Certificate no. (cULus)	E258476	Certificate no. (cULusEX)	E470829
Institute (cULus)	CULUS	Institute (cULusEX)	CULUSEX

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	ECLASS 12.0	27-04-07-01

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	6d8cdf22-8230-4af8-86c8-3558c716666d

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Approvals

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ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E258476
Certificate no. (cULusEX)	E470829

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	CAD data – STEP
Engineering Data	EPLAN
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	Produkt Information PROTOP DE Produkt Information PROTOP EN

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Drawings

