

PRO TOP3 960W 48V 20A**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, 48 V
Order No.	2467170000
Type	PRO TOP3 960W 48V 20A
GTIN (EAN)	4050118482072
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Depth	175 mm	Depth (inches)	6.89 inch
Height	130 mm	Height (inches)	5.118 inch
Width	89 mm	Width (inches)	3.504 inch
Net weight	2,490 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Humidity at operating temperature	5...95 %, no condensation		

Input

AC input voltage range	3 x 320...3 x 575 V AC / 2 x 360...2 x 575 V AC	
Connection system	PUSH IN	
Current consumption in relation to the input voltage	Voltage type	3-phase AC
	Input voltage	320 V
	Input current	3.4 A
	Voltage type	DC
	Input voltage	400 V
	Input current	3.2 A
DC input voltage range	450...800 V DC	
Frequency range AC	45...65 Hz	
Input fuse (internal)	No	
Inrush current	Max. 10 A	
Nominal power consumption	1,007 VA	
Rated input voltage	3x 400...3x 500 V AC (wide-range input)	
Recommended back-up fuse	6 - 8 A, Char. C	
Surge protection	Varistor	

Output

Connection system	PUSH IN	
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}	20 A @ 60 °C	
Output power	960 W	
Output voltage, max.	56 V	
Output voltage, min.	45 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	48 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	No
Degree of efficiency	95,3 %	Derating	> 60°C (2.5% / 1°C)
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
Power factor (approx.)	> 0.75 @ 3x400 V AC	Protection degree	IP20
Short-circuit protection	Yes, internal	Start-up	≥ -40 °C
Surge voltage category	III, II	Weight	2,490 g

EMC / shock / vibration

Interference immunity test acc. to	EN 55024, EN 55032 (EN 55022), EN 61000-6-1, 2, 3, 4	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.	4 AWG	Conductor cross-section, AWG/kcmil , min.	20 AWG
Conductor cross-section, flexible , min.	0.75 mm ²	Conductor cross-section, rigid , max.	16 mm ²
Conductor cross-section, rigid , min.	0.75 mm ²	Connection system	PUSH IN
Number of terminals	4 for L1/L2/L3/PE	Wire connection cross section, flexible (input), max.	16 mm ²

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	4 AWG	Conductor cross-section, AWG/kcmil , min.	20 AWG
Conductor cross-section, flexible , max.	16 mm ²	Conductor cross-section, flexible , min.	0.75 mm ²
Conductor cross-section, rigid , max.	16 mm ²	Conductor cross-section, rigid , min.	0.75 mm ²
Connection system	PUSH IN	Number of terminals	4 (++ / -)

Connection data (signal)

Wire connection cross-section, flexible (signal), max.	1.5 mm ²	Wire connection cross-section, flexible (signal), min.	0.14 mm ²
Wire connection method	PUSH IN	Wire cross-section, AWG/kcmil , max.	16
Wire cross-section, AWG/kcmil , min.	26 mm ²	Wire cross-section, solid , max.	1.5 mm ²
Wire cross-section, solid , min.	0.14 mm ²		

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Catalogue status 14.06.2024 / We reserve the right to make technical changes.

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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	ETIM 9.0	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	ECLASS 13.0	27-04-07-01

Environmental Product Compliance

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

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
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Approval/Certificate/Document of Conformity	Lloyds Register Certificate
	DNV Certificate.pdf
	RINA Certificate.pdf
	UL 121201 CL1 DIV 2 Certificate.pdf
	ABS Certificate.pdf
	BV Certificate.pdf
	Declaration of Conformity
Engineering Data	UK Conformity Assessed
	CAD data – STEP
User Documentation	Operating instruction
	IO-Link Register Description PROtop
Catalogues	Catalogues in PDF-format
Brochures	Produkt Information PROTOP DE
	Produkt Information PROTOP EN

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Drawings

