PRO TOP1 120W 12V 10A

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 ustainability 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 mediumsized 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, 12 V
Order No.	2466910000
Type	PRO TOP1 120W 12V 10A
GTIN (EAN)	4050118481495
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	35 mm	Width (inches)	1.378 inch
Net weight	850 g		

Temperatures

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

Input

AC input voltage range	85...277 V AC	
Connection system	PUSH IN with actuator	
Current consumption in relation to the input voltage	Voltage type	AC
	Input voltage	100 V
	Input current	2 A
	Voltage type	DC
	Input voltage	120 V
	Input current	2 A
DC input voltage range	80 ... 410 V DC	
Frequency range AC	45...65 Hz	
Input fuse (internal)	Yes	
Inrush current	max. 5 A	
Nominal power consumption	133.3 VA	
Rated input voltage	110...240 V AC / 120...340 V DC	
Recommended back-up fuse	5 A, DI / 6 A, Char. B / 6 A, Char C	
Surge protection	Varistor	

Output

Connection system	PUSH IN with actuator	
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}	10 A @ 60 °C	
Output power	120 W	
Output voltage, max.	15 V	
Output voltage, min.	11 V	
Output voltage, note	adjustable with potentiometer or comunication module	
Parallel connection option	Yes, for redundancy and power increase (with ORing MOSFET)	
Protection against inverse voltage	Yes	
Ramp-up time	≤ 100 ms	
Rated output voltage	12 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	90%	Derating	> 60°C (2.5% / 1°C)
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
Power factor (approx.)	> 0.85	Power loss, idling	5 W
Power loss, nominal load	13.3 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.	12 AWG	Conductor cross-section, AWG/kcmil , min.	20 AWG
Conductor cross-section, flexible , min.	0.5 mm²	Conductor cross-section, rigid , max.	1.5 mm²
Conductor cross-section, rigid , min.	0.5 mm²	Connection system	PUSH IN with actuator
Number of terminals	3 for L/N/PE	Screwdriver blade	0.6 x 3.5
Wire connection cross section, flexible (input), max.	2.5 mm²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12 AWG	Conductor cross-section, AWG/kcmil , min.	26 AWG
Conductor cross-section, flexible , max.	2.5 mm²	Conductor cross-section, flexible , min.	0.2 mm²
Conductor cross-section, rigid , max.	2.5 mm²	Conductor cross-section, rigid , min.	0.2 mm²
Connection system	PUSH IN with actuator	Number of terminals	5 (+ + / - - -)
Screwdriver blade	0.6 x 3.5		

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Connection data (signal)

Wire connection cross-section, flexible (signal), max.	1.5 mm²	Wire connection cross-section, flexible (signal), min.	0.14 mm²
Wire connection method	PUSH IN	Wire cross-section, AWG/kcmil , max.	16
Wire cross-section, AWG/kcmil , min.	26 mm²	Wire cross-section, solid , max.	1.5 mm²
Wire cross-section, solid , min.	0.14 mm²		

Signalling

Floating contact	Yes	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)	Output voltage OK (30 V DC / 1 A)		

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
ECLASS 14.0	27-04-07-01		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c, 7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	6d8cdf22-8230-4af8-86c8-3558c716666d

Approvals

Approvals

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

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Downloads

Approval/Certificate/Document of Conformity	Lloyds Register Certificate ABS Certificate BV Certificate.pdf DNV Certificate.pdf RINA Certificate.pdf UL 508_CSA C22.2 Certificate.pdf Declaration of Conformity UK Conformity Assessed
Engineering Data	CAD data – STEP Application notes – PROtop-topGUARD_IO-Link_CODESYS Application notes – PROtop_topGUARD_IO-Link_Twincat
User Documentation	Operating instruction IO-Link Register Description PROtop
Catalogues	Catalogues in PDF-format
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Drawings