

PRO TOP1 480W 24V 20A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



PROtop combines highest efficiency and compact housings with high durability and direct parallel connection without diode modules. This reduces costs and creates space in the cabinet. Due to the powerful DCL technology, even difficult loads - motors, for instance - are operated smoothly, while circuit breakers are triggered reliably. The good communication capability allows permanent condition monitoring and full integration with control systems.

General ordering data

Version	Power supply, switch-mode power supply unit, 24 V
Order No.	2466890000
Type	PRO TOP1 480W 24V 20A
GTIN (EAN)	4050118481471
Qty.	1 pc(s).

Creation date March 9, 2023 9:17:08 PM CET

Catalogue status 03.03.2023 / We reserve the right to make technical changes.

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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	68 mm	Width (inches)	2.677 inch
Net weight	1,520 g		

Temperatures

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

Input

AC input voltage range	85...277 V AC		
Connection system	PUSH IN		
Current consumption in relation to the input voltage	Voltage type	AC	
	Input voltage	100 V	
	Input current	6 A	
	Voltage type	DC	
	Input voltage	120 V	
	Input current	6 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	516.1 W		
Rated input voltage	110...240 V AC / 120...340 V DC		
Recommended back-up fuse	8 A (DI) / 10 A (Char. B), 8 A (Char. C)		
Surge protection	Varistor		

Output

Connection system	PUSH IN		
DCL - peak load reserve	Multiple of the rated current	150 %	
	Boost duration	5 s	
	Multiple of the rated current	500 %	
	Boost duration	15 ms	
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC		
Nominal output current for U_{nom}	20 A @ 60 °C		
Output power	480 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	No
Degree of efficiency	93%	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	Operating temperature	-25 °C...70 °C
Power factor (approx.)	> 0.9	Power loss, idling	10 W
Power loss, nominal load	36.1 W	Protection degree	IP20
Short-circuit protection	Yes, internal	Start-up	≥ -40 °C
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

Humidity at operating temperature	5...95 %, no condensation	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

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Connection data (input)

Conductor cross-section, AWG/kcmil , max.	8	Conductor cross-section, AWG/kcmil , min.	20
Conductor cross-section, flexible , min.	0.2 mm ²	Conductor cross-section, rigid , max.	10 mm ²
Conductor cross-section, rigid , min.	0.2 mm ²	Connection system	PUSH IN
Wire connection cross section, flexible (input), max.	6 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	8	Conductor cross-section, AWG/kcmil , min.	20
Conductor cross-section, flexible , max.	6 mm ²	Conductor cross-section, flexible , min.	0.2 mm ²
Conductor cross-section, rigid , max.	10 mm ²	Conductor cross-section, rigid , min.	0.2 mm ²
Connection system	PUSH IN	Number of terminals	5 (+ + / - - -)

Connection data (signal)

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

Approvals



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
User Documentation	Operating instruction
Catalogues	Catalogues in PDF-format
Brochures	Produkt Information PROTOP DE Produkt Information PROTOP EN

Data sheet

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Drawings

