

**PROtop
PRO TOP1 480W 24V 20A EX**

Weidmüller Interface GmbH & Co. KG
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High-end power supplies must perform efficiently and reliably, even in challenging industrial environments. This requires high power reserves, a long service life and optimal protection against overvoltage, vibration and extreme temperature conditions.

New DCL technology gives PROtop an outstanding dynamic range. This can be used for the reliable triggering of circuit breakers or for powerful motor starts.

General ordering data

Type	PRO TOP1 480W 24V 20A EX
Order No.	2467000000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118481907
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	68 mm	Width (inches)	2.677 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	1,520 g		

Temperatures

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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input

AC input voltage range	85...277 V AC	Connection system	Clamping yoke
DC input voltage range	80 ... 410 V DC	Dielectric strength	max. 300 V AC ≤ 15 s
Frequency range AC	45...65 Hz	Input fuse (internal)	Yes
Inrush current		Rated input voltage	100 - 240 V AC / 120 - 340 V DC
Surge protection	max. 5 A Varistor		

output

DCL - peak load reserve	150 % (5 s); 500 % (15 ms)	Connection system	Clamping yoke connection
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC	Output power	480 W
Output voltage	24 V	Output voltage	22.5...29 V
Parallel connection option	Passive Current Sharing	Protection against inverse voltage	Yes
Ramp-up time	≤ 100 ms	Rated (nominal) output current @ U _{Nom}	20 A @ 60 °C
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ U _{Rated}	130% permanent at ≤ 40°C
Residual ripple, breaking spikes	< 50 mVss @ U _{Nennr} , Full Load	Triggerable circuit breakers	C2, C4, C6, B6, B10, B16

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Technical data
General data

AC failure bridging time @ I _{Nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC	Conformal coating	Yes
Degree of efficiency	93%	Derating	> 60°C (2.5% / 1°C)
Earth leakage current, max.	3.5 mA	Housing version	Metal, corrosion resistant
MTBF	> 1.000.000 h according IEC 1709 (SN29500)	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	-40 °C...70 °C	Power factor (approx.)	> 0.9
Power loss, idling	5 W	Power loss, nominal load	36.1 W
Protection degree	IP20	Series switching capability	Yes
Short-circuit protection	Yes, internal	Surge voltage category	III

EMC / shock / vibration

Noise emission in accordance with EN55032	Class B	Vibration resistance IEC 60068-2-6	2.3 g (on DIN rail), 4 g (with direct mounting)
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	Shock resistance IEC 60068-2-27	30 g in all directions

Insulation coordination

Class of protection	I, with PE connection	Humidity at operating temperature	5...100 % no condensation
Insulation voltage input / earth	4 kV	Insulation voltage output / earth	0.5 kV
Insulation voltage, input/output	4 kV	Pollution severity	2
Surge voltage category	III		

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 EN60950, PELV acc. to EN60204	Safety transformers for switch-mode power supplies	nach EN61558-2-16

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Technical data**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
Number of terminals	3 for L/N/PE	Screwdriver blade	0.8 x 4.0
Wire connection cross section, flexible (input), max.	4 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	8	Conductor cross-section, AWG/kcmil , min.	24
Conductor cross-section, flexible , max.	6 mm ²	Conductor cross-section, flexible , min.	0.5 mm ²
Conductor cross-section, rigid , max.	6 mm ²	Conductor cross-section, rigid , min.	0.2 mm ²
Connection system	Clamping yoke connection	Number of terminals	5 (+ + / - - -)
Screwdriver blade	0.6 x 3.5		

Connection data (signal)

Wire connection cross-section, flexible (signal), max.	1.5 mm ²	Wire connection cross-section, flexible (signal), min.	0.2 mm ²
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

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
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Classifications

ETIM 6.0	EC002540	eClass 6.2	27-04-90-04
eClass 9.1	27-04-07-01		

Approvals

ROHS	Conform
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Downloads

Engineering Data	STEP
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Data sheet

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Drawings

