

PROtop
PRO TOP1 960W 48V 20A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
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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 960W 48V 20A
Order No.	2466920000
Version	Power supply, switch-mode power supply unit, 48 V
GTIN (EAN)	4050118481600
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	124 mm	Width (inches)	4.882 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	3,382 g		

Temperatures

Humidity at operating temperature	5...95 %, no condensation	Operating temperature, max.	70 °C
Operating temperature, min.	-25 °C	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C	Operating temperature	-25 °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	PUSH IN
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	max. 15 A	Rated input voltage	100 - 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

DCL - peak load reserve	150 % (5 s); 400 % (15 ms)	Connection system	PUSH IN
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	48 V
Output voltage	45...56 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	48 V DC ± 1 %	Reserve capacity @ $U_{Nominal}$	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 100 mV _{PP}	Triggerable circuit breakers	C2, C4, C6, B6, B10, B2, B4

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Technical data
General data

AC failure bridging time @ I_{nom}	> 20 ms @ 230 V AC / > 20 ms @ 115 V AC	Degree of efficiency	94%
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	-25 °C...70 °C
Power factor (approx.)	> 0.9	Power loss, idling	10 W
Power loss, nominal load	61.3 W	Protection degree	IP20
Series switching capability	Yes	Short-circuit protection	Yes, internal
Start-up	≥ -40 °C	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 61000-3-3:2013, 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

Humidity at operating temperature	5...95 %, no condensation	Insulation voltage output / earth	0.5 kV
Insulation voltage output / earth	3.2 kV	Insulation voltage, input/output	3.5 kV
Pollution severity	2	Protection degree	I, with PE connection
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 according to EN 60950, PELV according to EN 60204	Safety transformers for switch-mode power supplies	according to EN 61558-2-16

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Technical data

Connection data (input)

Conductor cross-section, AWG/kcmil , max.	4	Conductor cross-section, AWG/kcmil , min.	20
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	3 for L/N/PE	Screwdriver blade	0.6 x 3.5
Wire connection cross section, flexible (input), max.	16 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	4	Conductor cross-section, AWG/kcmil , min.	20
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	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.	0.14 mm ²
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

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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Approvals

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

Classifications

ETIM 6.0	EC002540	eClass 6.2	27-04-90-04
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01

Data sheet**PROtop
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Approvals



ROHS

Conform

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Engineering Data

[EPLAN](#)

Engineering Data

[STEP](#)
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User Documentation

[Operating instruction](#)

Data sheet

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Drawings

