

PROtop
PRO TOP1 72W 24V 3A CO

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 Germany
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 Fax: +49 5231 14-292083
 www.weidmueller.com



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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 72W 24V 3A CO
Order No.	2466970000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118481570
Qty.	1 pc(s).

**PROtop
PRO TOP1 72W 24V 3A CO**

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Technical data**Dimensions and weights**

Width	35 mm	Width (inches)	1.378 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	650 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

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	max. 5 A	Rated input voltage	100 - 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

DCL - peak load reserve	150 % (5 s); 400 % (15 ms)	Connection system	Clamping yoke connection
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC	Nominal output current for U _{nom}	3 A @ 60 °C
Output power	72 W	Output voltage	24 V
Output voltage	22.5...28.8 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ U _{Nominal}	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 50 mVss @ U _{Nennr} , Full Load	Triggerable circuit breakers	B2

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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	89%	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.)	> 0.5
Power loss, idling	5 W	Power loss, nominal load	8.9 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

Humidity at operating temperature	5...100 % 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		

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.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , min.	0.2 mm ²	Conductor cross-section, rigid , max.	4 mm ²
Conductor cross-section, rigid , min.	0.2 mm ²	Connection system	Clamping yoke
Number of terminals	3 for L/N/PE	Screwdriver blade	0.6 x 3.5
Wire connection cross section, flexible (input), max.	4 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , max.	4 mm ²	Conductor cross-section, flexible , min.	0.2 mm ²
Conductor cross-section, rigid , max.	4 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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Approvals

Institute (cULus)



Certificate no. (cULus)

E258476

Institute (cULusEX)



Certificate no. (cULusEX)

E470829

Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E258476

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

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User Documentation

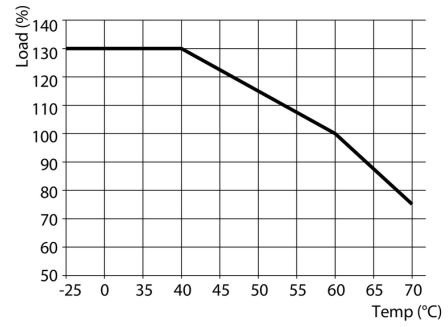
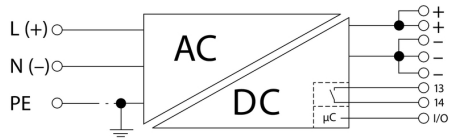
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Drawings



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General ordering data

Type	PRO TOP1 120W 24V 5A EX
Order No.	2466980000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118481587
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	35 mm	Width (inches)	1.378 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	850 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	48...410 V DC (Derating 40% @ 48 V DC)	Dielectric strength	max. 300 V AC ≤ 15 s
Frequency range AC	45...65 Hz	Input fuse (internal)	Yes
Inrush current	max. 5 A	Rated input voltage	100 - 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

DCL - peak load reserve	150 % (5 s); 600 % (15 ms)	Connection system	Clamping yoke connection
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC	Nominal output current for U_{nom}	5 A @ 60 °C
Output power	120 W	Output voltage	24 V
Output voltage	22.5...28.8 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ $U_{Nominal}$	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn} , Full Load	Triggerable circuit breakers	C2

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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	91%	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.)	> 0.85
Power loss, idling	5 W	Power loss, nominal load	11.8 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

Humidity at operating temperature	5...100 % 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		

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.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , min.	0.2 mm ²	Conductor cross-section, rigid , max.	4 mm ²
Conductor cross-section, rigid , min.	0.2 mm ²	Connection system	Clamping yoke
Number of terminals	3 for L/N/PE	Screwdriver blade	0.6 x 3.5
Wire connection cross section, flexible (input), max.	4 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , max.	4 mm ²	Conductor cross-section, flexible , min.	0.2 mm ²
Conductor cross-section, rigid , max.	4 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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Approvals

Institute (cULus)



Certificate no. (cULus)

E258476

Institute (cULusEX)



Certificate no. (cULusEX)

E470829

Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E258476

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

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Technical data

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Engineering Data

[STEP](#)

User Documentation

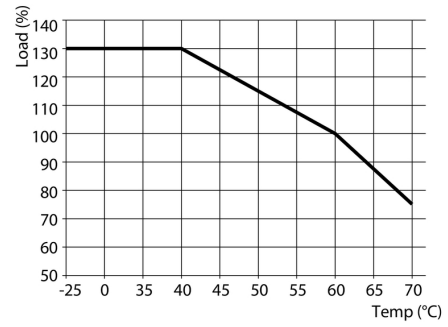
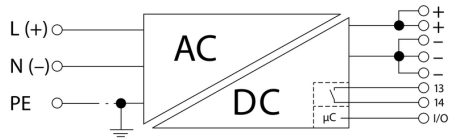
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Drawings



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PRO TOP1 240W 24V 10A EX

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General ordering data

Type	PRO TOP1 240W 24V 10A EX
Order No.	2466990000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118481594
Qty.	1 pc(s).

PROtop
PRO TOP1 240W 24V 10A EX

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Technical data
Dimensions and weights

Width	39 mm	Width (inches)	1.535 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	1.05 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	max. 5 A	Rated input voltage	100 - 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

DCL - peak load reserve	150 % (5 s); 600 % (15 ms)	Connection system	Clamping yoke connection
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC	Nominal output current for U_{nom}	10 A @ 60 °C
Output power	240 W	Output voltage	24 V
Output voltage	22.5...28.8 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ $U_{Nominal}$	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nennr} , Full Load	Triggerable circuit breakers	C2, C4, B6

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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	92 %	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	20.8 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

Humidity at operating temperature	5...100 % 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		

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.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , min.	0.2 mm ²	Conductor cross-section, rigid , max.	4 mm ²
Conductor cross-section, rigid , min.	0.2 mm ²	Connection system	Clamping yoke
Number of terminals	3 for L/N/PE	Screwdriver blade	0.6 x 3.5
Wire connection cross section, flexible (input), max.	4 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , max.	4 mm ²	Conductor cross-section, flexible , min.	0.2 mm ²
Conductor cross-section, rigid , max.	4 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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Approvals

Institute (cULus)



Certificate no. (cULus)

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Institute (cULusEX)



Certificate no. (cULusEX)

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Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E258476

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Technical data

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Engineering Data

[STEP](#)

User Documentation

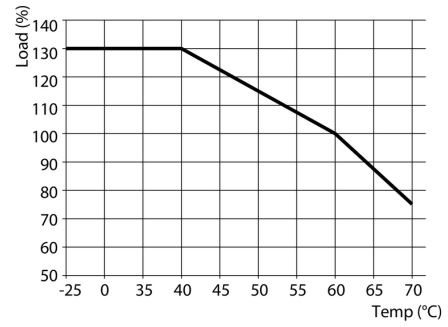
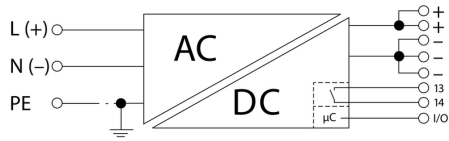
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Drawings



PROtop
PRO TOP1 480W 24V 20A EX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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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).

PROtop
PRO TOP1 480W 24V 20A EX

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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

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	Nominal output current for U_{nom}	20 A @ 60 °C
Output power	480 W	Output voltage	24 V
Output voltage	22.5...28.8 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ $U_{Nominal}$	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 50 mVss @ U_{Nenn} , 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	10 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

Humidity at operating temperature	5...100 % 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		

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.	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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Approvals

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

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E258476
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Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

Creation date October 17, 2019 4:26:05 PM CEST

Catalogue status 11.10.2019 / We reserve the right to make technical changes.

Data sheet**PROtop
PRO TOP1 480W 24V 20A EX****Weidmüller Interface GmbH & Co. KG**
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Approvals



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Engineering Data

[STEP](#)

User Documentation

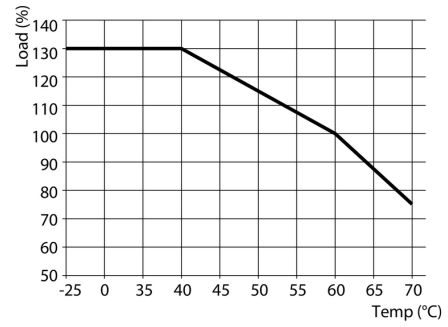
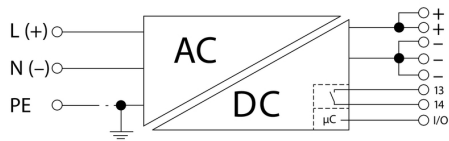
[Operating instruction](#)

Data sheet

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

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Drawings



PROtop
PRO TOP1 960W 24V 40A 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 960W 24V 40A EX
Order No.	2467010000
Version	Power supply, switch-mode power supply unit, 24 V
GTIN (EAN)	4050118481914
Qty.	1 pc(s).

PROtop
PRO TOP1 960W 24V 40A EX

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Technical data
Dimensions and weights

Width	139 mm	Width (inches)	5.472 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...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	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	Clamping yoke connection
Mains failure bridge-over time	> 20 ms @ 115V AC/ 230 VAC	Nominal output current for U _{nom}	40 A @ 60 °C
Output power	960 W	Output voltage	24 V
Output voltage	22.5...28.8 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ U _{Nominal}	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 50 mVss @ U _{Nennr} , Full Load	Triggerable circuit breakers	B6, B10, B16, B20, B25, C2, C4, C6, C10, C13

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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	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	-40 °C...70 °C	Power factor (approx.)	> 0.9
Power loss, idling	5 W	Power loss, nominal load	61.3 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

Humidity at operating temperature	5...100 % 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		

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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PRO TOP1 960W 24V 40A EX

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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.	6	Conductor cross-section, AWG/kcmil , min.	22
Conductor cross-section, flexible , max.	16 mm ²	Conductor cross-section, flexible , min.	6 mm ²
Conductor cross-section, rigid , max.	16 mm ²	Conductor cross-section, rigid , min.	0.2 mm ²
Connection system	Clamping yoke connection	Number of terminals	5 (+ + / - -)
Screwdriver blade	1.0 x 5.5		



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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Approvals

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

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E258476
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Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

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Data sheet

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PRO TOP1 960W 24V 40A EX**

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Technical data

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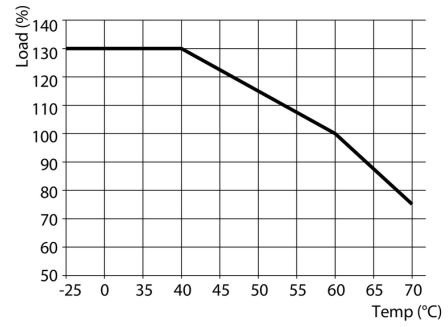
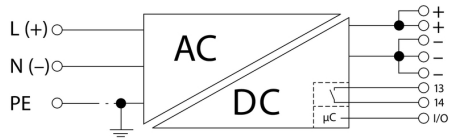
Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	STEP
User Documentation	IS PRO TOP1 960W 24V 40A EX

Data sheet

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PRO TOP1 960W 24V 40A EX**

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Drawings



PROtop
PRO TOP1 120W 12V 10A EX

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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 120W 12V 10A EX
Order No.	2467020000
Version	Power supply, switch-mode power supply unit, 12 V
GTIN (EAN)	4050118481921
Qty.	1 pc(s).

PROtop
PRO TOP1 120W 12V 10A EX

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Technical data
Dimensions and weights

Width	35 mm	Width (inches)	1.378 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	125 mm	Depth (inches)	4.921 inch
Net weight	850 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	max. 5 A	Rated input voltage	100 - 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

DCL - peak load reserve	150 % (5 s); 400 % (15 ms)	Connection system	Clamping yoke connection
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	12 V
Output voltage	11...15 V	Parallel connection option	yes, max 10
Protection against inverse voltage	Yes	Ramp-up time	≤ 100 ms
Rated output voltage	12 V DC ± 1 %	Reserve capacity @ U _{Nominal}	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	< 50 mVss @ U _{Nennr} , Full Load	Triggerable circuit breakers	B6, C2

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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	90%	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.)	> 0.85
Power loss, idling	5 W	Power loss, nominal load	13.3 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

Humidity at operating temperature	5...100 % 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		

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.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , min.	0.2 mm ²	Conductor cross-section, rigid , max.	4 mm ²
Conductor cross-section, rigid , min.	0.2 mm ²	Connection system	Clamping yoke
Number of terminals	3 for L/N/PE	Screwdriver blade	0.6 x 3.5
Wire connection cross section, flexible (input), max.	4 mm ²		

Connection data (output)

Conductor cross-section, AWG/kcmil , max.	12	Conductor cross-section, AWG/kcmil , min.	30
Conductor cross-section, flexible , max.	4 mm ²	Conductor cross-section, flexible , min.	0.2 mm ²
Conductor cross-section, rigid , max.	4 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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Approvals

Institute (cULus)



Certificate no. (cULus)

E258476

Institute (cULusEX)



Certificate no. (cULusEX)

E470829

Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E258476

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

Creation date October 17, 2019 4:24:34 PM CEST

Catalogue status 11.10.2019 / We reserve the right to make technical changes.

Data sheet**PROtop
PRO TOP1 120W 12V 10A EX**

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Technical data**Approvals**

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Engineering Data

[STEP](#)

User Documentation

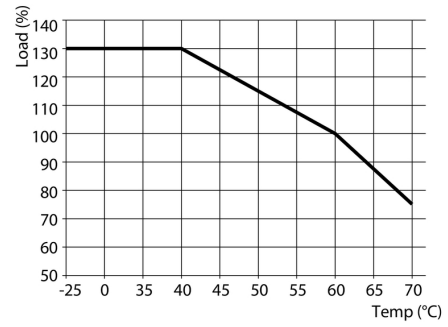
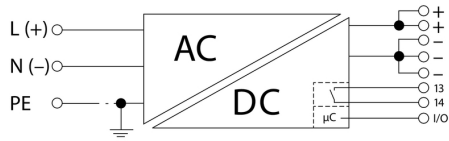
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Data sheet

**PROtop
PRO TOP1 120W 12V 10A EX**

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Drawings



PROtop
PRO TOP1 480W 48V 10A EX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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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 48V 10A EX
Order No.	2467040000
Version	Power supply, switch-mode power supply unit, 48 V
GTIN (EAN)	4050118481945
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	Nominal output current for U_{nom}	10 A @ 60 °C
Output power	480 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		Reserve capacity @ $U_{Nominal}$	130% permanent at ≤ 40°C, 150 % (5 s)
Residual ripple, breaking spikes	48 V DC ± 1 % < 100 mV _{pp}	Triggerable circuit breakers	C2, C4, B6

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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	10 W	Power loss, nominal load	36.1 W
Protection degree	IP20	Series switching capability	No
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

Humidity at operating temperature	5...100 % 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		

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.	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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Approvals

Institute (cULus)



Certificate no. (cULus)

E258476

Institute (cULusEX)



Certificate no. (cULusEX)

E470829

Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E258476

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

Creation date October 17, 2019 4:26:44 PM CEST

Catalogue status 11.10.2019 / We reserve the right to make technical changes.

Data sheet

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PRO TOP1 480W 48V 10A EX**

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Technical data

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Engineering Data

[STEP](#)

User Documentation

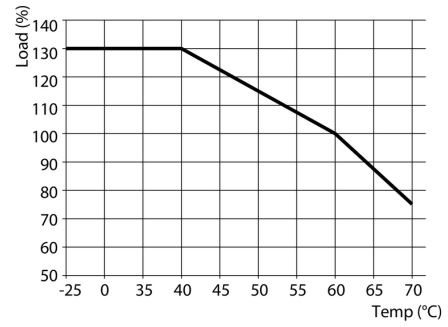
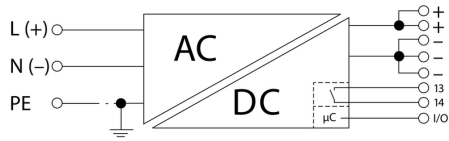
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Data sheet

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Drawings



PROtop
PRO TOP1 960W 48V 20A CO

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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 CO
Order No.	2467050000
Version	Power supply, switch-mode power supply unit, 48 V
GTIN (EAN)	4050118481952
Qty.	1 pc(s).

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PRO TOP1 960W 48V 20A CO

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Technical data
Dimensions and weights

Width	139 mm	Width (inches)	5.472 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...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	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	Clamping yoke connection
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	Conformal coating	Yes
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	-40 °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	No
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

Humidity at operating temperature	5...100 % 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		

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.	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.	6	Conductor cross-section, AWG/kcmil , min.	22
Conductor cross-section, flexible , max.	16 mm ²	Conductor cross-section, flexible , min.	6 mm ²
Conductor cross-section, rigid , max.	16 mm ²	Conductor cross-section, rigid , min.	0.2 mm ²
Connection system	Clamping yoke connection	Number of terminals	5 (+ + / - - -)
Screwdriver blade	1.0 x 5.5		

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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Approvals

Institute (cULus)



Certificate no. (cULus)

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Institute (cULusEX)



Certificate no. (cULusEX)

E470829

Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E258476

Classifications

ETIM 6.0	EC002540	ETIM 7.0	EC002540
eClass 9.0	27-04-07-01	eClass 9.1	27-04-07-01
eClass 10.0	27-04-07-01		

Creation date October 17, 2019 4:27:43 PM CEST

Catalogue status 11.10.2019 / We reserve the right to make technical changes.

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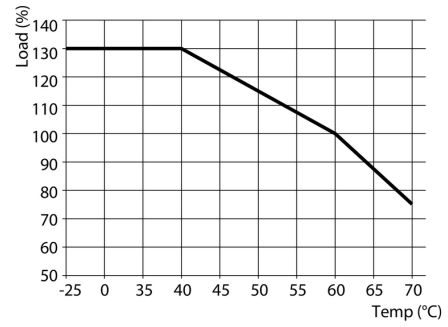
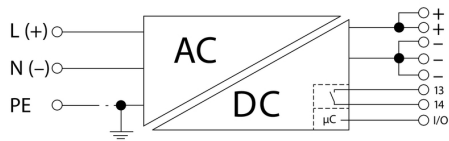
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