

PRO TOPDC 24V/24V 20A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

PROtop DCDC converters are used for safe electrical isolation to avoid ground loops that can occur when supplying field devices in production or process plants. DCDC converters can be used on long supply lines to refresh the supply voltage. The integrated ORing MOSFET reliably decouples possible internal short circuits. It allows direct parallel connection of ACDC and DCDC converters of the PROtop series for redundancy purposes or to increase power. This makes the use of the otherwise common diode or redundancy modules obsolete. Furthermore, PROtop DCDC converters feature the powerful DCL technology – and their communication module allows full data transparency and remote control.

General ordering data

Version	DC/DC converter
Order No.	2627630000
Type	PRO TOPDC 24V/24V 20A
GTIN (EAN)	4050118661590
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	75 mm	Width (inches)	2.953 inch
Net weight	1,746 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

Connection system	PUSH IN with actuator	
Current consumption in relation to the input voltage	Voltage type	DC
	Input voltage	24 V
	Input current	22 A
	Voltage type	DC
	Input voltage	18 V
	Input current	30 A
DC input voltage range	14 V...31.2 V (linear Derating from 18 V...14 V, 60% rated load @ U _{in} 14 V)	
Input fuse (internal)	Yes	
Input voltage, max.	31.2 V	
Input voltage, min.	14 V	
Inrush Current Limitation	Yes	
Inrush current	max. 15 A	
Nominal power consumption	527.5 VA	
Rated input voltage	24 V DC	

Output

Connection system	PUSH IN with actuator	
DCL - peak load reserve	Multiple of the rated current	500 %
	Boost duration	15 ms
	Multiple of the rated current	200 %
	Boost duration	5 s
Mains failure bridge-over time	Mains failure bridge-over time, min.	10 ms
	Input voltage type	DC
	Input voltage	24 V
	Output current	20 A
	Output voltage	24 V
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	< 40 mV _{pp} @25 °C	

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General data

Conformal coating	No	Degree of efficiency	91%
Derating	> 60°C (2.5% / 1°C)	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	Power loss, idling	5 W
Protection degree	IP20	Short-circuit protection	Yes
Start-up	≥ -40 °C	Surge voltage category	I, II, III

EMC / shock / vibration

Interference immunity test acc. to	EN 55032:2015, EN 55035:2017, EN 61000-6-1:2007, EN 61000-6-2:2005, EN 61000-6-3:2007 / A1:2011, EN 61000-6-4:2007 / A1:2011, IEC 61000-4-2, IEC 61000-4-3, DIN EN 61000-4-4, EN 61000-4-5:2005, EN 61000-4-6:2008, IEC 61000-4-8	Noise emission in accordance with EN55032	
Shock resistance IEC 60068-2-27	30 g in all directions	Vibration resistance IEC 60068-2-6	Class B 2.3 g (on DIN rail), 4 g (with direct mounting)

Insulation coordination

Insulation voltage input / earth	1.41 kV	Insulation voltage output / earth	0.7 kV
Insulation voltage, input/output	1.41 kV	Protection class	III, with no ground connection, for SELV
Surge voltage category	I, II, 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 IEC 60950-1, PELV according to EN 60204-1	Safety transformers for switch-mode power supplies	According to EN 61558-2-17

Connection data (input)

Conductor cross-section, AWG/kcmil, max.	8	Conductor cross-section, AWG/kcmil, min.	20
Conductor cross-section, flexible, min.	0.2 mm²	Conductor cross-section, rigid, max.	10 mm²
Conductor cross-section, rigid, min.	0.2 mm²	Connection system	PUSH IN with actuator
Wire connection cross section, flexible (input), max.	6 mm²		

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Technical data

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 with actuator	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. (CSA)	80043367	Institute (CSA)	CSA
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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

Approvals

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ROHS	Conform
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Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Instruction Sheet
Catalogues	Catalogues in PDF-format

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Drawings

