

## PRO DCDC 240W 24V 10A

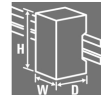
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)



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, 24 V
Order No.	<a href="#">2001810000</a>
Type	PRO DCDC 240W 24V 10A
GTIN (EAN)	4050118383843
Qty.	1 pc(s).

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## Technical data

### Dimensions and weights

Depth	120 mm	Depth (inches)	4.724 inch
Height	130 mm	Height (inches)	5.118 inch
Width	43 mm	Width (inches)	1.693 inch
Net weight	1,095 g		

### Temperatures

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

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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### Input

Connection system	Screw connection	DC input voltage range	14...32 V (during operation), 18...32 V (commissioning)
Input fuse (internal)	Yes	Inrush Current Limitation	Yes
Inrush current	max. 15 A	Nominal power consumption	260.9 VA
Rated input voltage	24 V DC	Recommended back-up fuse	25 A, Char.B circuit breaker, 25 A, Char.C circuit breaker

### Output

Capacitive load	unrestricted	
Connection system	Screw connection	
Continuous output current @ $U_{Nominal}$	10 A @ 60 °C, 12 A @ 45°C, 7,5 A @ 70°C	
DCL - peak load reserve	Multiple of the rated current	150 %
	Boost duration	5 s
	Multiple of the rated current	200 %
	Boost duration	200 ms
	Multiple of the rated current	300 %
	Boost duration	100 ms
	Multiple of the rated current	400 %
	Boost duration	50 ms
	Multiple of the rated current	600 %
	Boost duration	20 ms
Nominal output current for $U_{nom}$	10 A @ 60 °C	
Output current	10A	
Output power	240 W	
Output voltage, max.	29.5 V	
Output voltage, min.	22.5 V	
Output voltage, note	(adjustable via potentiometer on front)	
Overload protection	Yes	
Parallel connection option	yes, max. 5 (without diode module)	
Protection against inverse voltage	Yes	
Ramp-up time	≤ 9 ms ( $U_{out}$ : 10%...90%)	
Rated output voltage	24 V DC ± 1 %	
Residual ripple, breaking spikes	max. 20 mVpp @ 24 VDC, IN	

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### General data

AC failure bridging time @ $I_{nom}$	> 12 ms @ 24 V DC	Clip-in foot	metal
Current limiting	150% $I_{out}$	Degree of efficiency	Typ.: 92 %
Housing version	Metal, corrosion resistant	Humidity	5...95 %, no condensation
Max. perm. air humidity (operational)	5 %...95 % RH	Mounting position, installation notice	Horizontal on TS35 mounting rail. 50 mm of clearance at top & bottom for air circ. Can mount side by side with no space in between., 50 mm clearance at top and bottom for free air circulation, mountable side by side without clearance
Operating temperature	-25 °C...70 °C	Power loss, idling	2 W
Power loss, nominal load	22 W	Protection against over-heating	Yes
Protection against reverse voltages from the load	33...34 V DC	Short-circuit protection	Yes
Start-up	≥ -40 °C	Surge voltage category	III

### EMC / shock / vibration

Interference immunity test acc. to	EN 61000-4-2 (ESD), EN 61000-4-4 (burst), EN 61000-4-5 (surge), EN 61000-4-6 (conducted), EN61000-4-3 (HF field)	Limiting of mains voltage harmonic currents	According to EN 61000-3-2
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 (15 Hz&hellip;150 Hz)		

### Insulation coordination

Humidity at operating temperature	5...95 %, no condensation	Insulation voltage input / earth	1.5 kV
Insulation voltage output / earth	0.5 kV	Insulation voltage, input/output	1.5 kV
Pollution severity	2	Protection class	III, with no ground connection, for SELV
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 IEC 60950-1, PELV according to EN 60204-1	Safety transformers for switch-mode power supplies	According to EN 61558-2-16

### Connection data (input)

Conductor cross-section, AWG/kcmil , max.	12 AWG	Conductor cross-section, AWG/kcmil , min.	30 AWG
Conductor cross-section, flexible , min.	0.08 mm <sup>2</sup>	Conductor cross-section, rigid , max.	4 mm <sup>2</sup>
Conductor cross-section, rigid , min.	0.08 mm <sup>2</sup>	Connection system	Screw connection
Reverse polarity protection	Yes	Wire connection cross section, flexible (input), max.	4 mm <sup>2</sup>

Creation date October 11, 2022 7:48:40 PM CEST

Catalogue status 07.10.2022 / We reserve the right to make technical changes.

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### Connection data (output)

Conductor cross-section, AWG/kcmil , max.	14 AWG	Conductor cross-section, AWG/kcmil , min.	24 AWG
Conductor cross-section, flexible , max.	2.5 mm <sup>2</sup>	Conductor cross-section, flexible , min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid , max.	2.5 mm <sup>2</sup>	Conductor cross-section, rigid , min.	0.2 mm <sup>2</sup>
Connection system	Screw connection	Number of terminals	10 (+ / - / signal)
Reverse polarity protection	Yes		

### Connection data (signal)

Wire connection method	Screw connection
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### Signalling

Contact load (NO contact)	max. 30 V DC / 0.5 A	Floating contact	Yes
Relay on/off	Output voltage > 21.6 V / < 20.4 V		

### Approvals

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

### Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E258476
Certificate no. (cULusEX)	E470829

### Downloads

Approval/Certificate/Document of Conformity	<a href="#">DE_PA5200_160310_002.pdf</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Operating Instructions</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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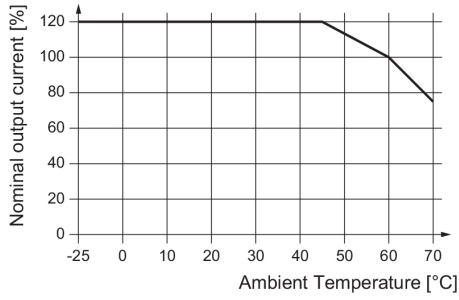
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**Drawings**

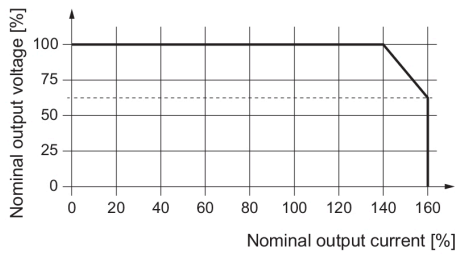


Derating curve

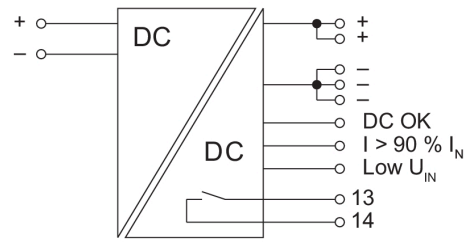
Event	LED (Gr/Ye/Rd)	LED (Ye)		Transistor status outputs			Status relay
		DC OK	I > 90% I <sub>N</sub>	I > 90% I <sub>N</sub>	I > 90% I <sub>N</sub>	I low U <sub>IN</sub>	
U <sub>IN</sub> < 14 V	OFF	ON	Low	Low	Low	OFF	
U <sub>IN</sub> = 14...19.2 V *1)	I < 90% I <sub>N</sub>	Gr	ON	High	Low	Low	ON
	I > 90% I <sub>N</sub>	Ye	ON	High	High	Low	ON
	U < 20.4 V	Rd	ON	Low	Low	Low	OFF
U <sub>IN</sub> > 19.2 V	I < 90% I <sub>N</sub>	Gr	OFF	High	Low	High	ON
	I > 90% I <sub>N</sub>	Ye	OFF	High	High	High	ON
	U < 20.4 V	Rd	OFF	Low	Low	High	OFF

Gr = grün / green / verde / verde / verde / verde / 绿色  
 Ye = gelb / yellow / jaune / giallo / amarillo / amarillo / 黄色  
 Rd = rot / red / rouge / rosso / rojo / vermelho / 红色  
 \*1) während des Betriebes / during operations / en cours de fonctionnement / durante l'esercizio / durante el servicio / durante a operação / 运行过程中

Signal states



UI characteristic curve



Switching symbol

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