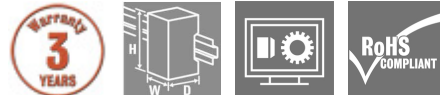


## PRO DC/DC PRO DCDC 240W 24V 10A

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com



The compact DC/DC converter provides systems with optimal failure protection for maximum availability.

- Compensation of voltage fluctuations
- Regeneration of the output voltage for a stable voltage at the end of long cables
- Establishment of floating supply systems through galvanic isolation
- Above-average performance data

### General ordering data

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

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**Technical data**
**Dimensions and weights**

Width	43 mm	Width (inches)	1.693 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	120 mm	Depth (inches)	4.724 inch
Net weight	1,110 g		

**Temperatures**

Humidity	5...95 %, no condensation	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

**Probability of failure**

MTBF	1,250,000 h
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**Environmental Product Compliance**

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

Connection system	Screw connection: pluggable	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	Rated input voltage	24 V DC
Recommended back-up fuse	25 A, Char.B circuit breaker, 25 A, Char.C circuit breaker		

**Output**

DCL - peak load reserve	150 % (5 s); 200 % (200 ms); 300 % (100 ms); 400 % (50 ms); 600 % (20 ms)	Capacitive load	unrestricted
Continuous output current @ U <sub>Nominal</sub>	10 A @ 60 °C, 12 A @ 45 °C, 7,5 A @ 70 °C	Output current	10A
Output power	240 W	Output voltage	24 V
Output voltage	22.5...29.5 V (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 <sub>out</sub> : 10%...90%)	Rated output voltage	24 V DC ± 1 %
Reserve capacity @ U <sub>Nominal</sub>	600% IN for 16 ms	Residual ripple, breaking spikes	max. 20 mVpp @ 24 VDC, IN

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**Technical data****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	Protection degree	IP20
Protective circuit	Overtemperature, Short-circuit, Inverse voltage	Short-circuit protection	Yes
Start-up	≥ -40 °C	Surge voltage category	III

**System data**

Output current	10A
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**EMC / shock / vibration**

Limiting of mains voltage harmonic currents	According to EN 61000-3-2	Noise emission in accordance with EN55032	Class B
Vibration resistance IEC 60068-2-6	2.3 g (15 Hz&hellip;150 Hz)	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)
Shock resistance IEC 60068-2-27	30 g in all directions		

**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 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 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: pluggable
Number of terminals	2 for (+, -)	Reverse polarity protection	Yes
Tightening torque, max.	0.5 Nm	Tightening torque, min.	0.4 Nm
Wire connection cross section, flexible (input), max.	4 mm <sup>2</sup>		

### 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>
Number of terminals	10 (+ / - / signal)	Tightening torque, max.	0.5 Nm
Tightening torque, min.	0.4 Nm		

### Signalling

Contact load (NO contact)	max. 30 V DC / 0.5 A	Floating contact	Yes
Relay on/off		Transistor output, positive-switching	DC OK: 20 mA max., short-circuit-proof, I > 90%: 20 mA max., short-circuit-proof, Low U <sub>IN</sub> : 20 mA max., short-circuit-proof
	Output voltage > 21.6 V / < 20.4 V		

### Approvals

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

### 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		

### Approvals

Approvals	
ROHS	Conform

**Data sheet****PRO DC/DC  
PRO DCDC 240W 24V 10A**

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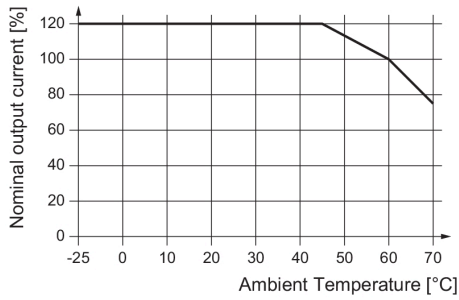
**Technical data****Downloads**

Approval/Certificate/Document of Conformity	<a href="#">DE_PA5200_160310_002.pdf</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Operating Instructions</a>

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**Drawings**

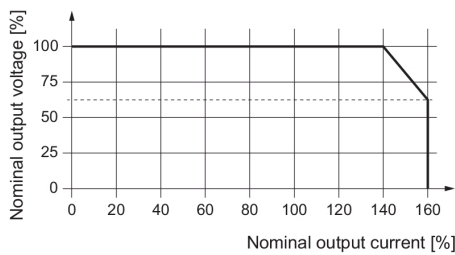


Derating curve

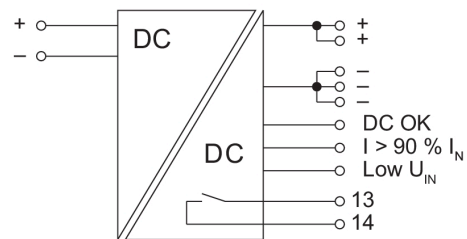
Event		LED (Gr/Ye/Rd) gr = "DC OK" Ye = "I > 90% I <sub>N</sub> " Rd = "FAul T"	LED (Ye) "I low U <sub>IN</sub> "	Transistor status outputs			Status relay
Input	Output			DC OK	I > 90% I <sub>N</sub>	I low U <sub>IN</sub>	
U <sub>IN</sub> < 14 V	-	OFF	ON	Low	Low	Low	OFF
U <sub>IN</sub> = 14...19.2 V *1)	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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**Accessories**

**Crosshead screwdriver, Pozidrive**



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

**General ordering data**

Type	SDIK PZ1 SL	Version
Order No.	<a href="#">1274730000</a>	Mounting tool, Blade length: 80 mm
GTIN (EAN)	4050118073225	
Qty.	1 pc(s).	

**End brackets**



**Klippon® Connect with clamping yoke Technology**

The high reliability and variety of designs of the terminal blocks with clamping yoke connections make planning easier and optimises operational safety. Klippon® Connect provides a proven response to a range of different requirements.

**General ordering data**

Type	WEW 35/2 V0 GF SW	Version
Order No.	<a href="#">1479000000</a>	W-Series, End bracket
GTIN (EAN)	4050118286779	
Qty.	100 pc(s).	
Type	WEW 35/1 V0 GF SW	Version
Order No.	<a href="#">1478990000</a>	W-Series, End bracket
GTIN (EAN)	4050118286892	
Qty.	50 pc(s).	

**Data sheet**

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**Accessories**

**Slotted screwdriver**



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

**General ordering data**

Type	SDIS SL 0.6X3.5X100	Version
Order No.	<a href="#">1274660000</a>	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118072631	thickness (A): 0.6 mm
Qty.	1 pc(s).	