

ConnectPower
CP DCDC 250W 24V 10A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

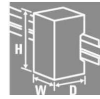
D-32758 Detmold

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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

Delivery status	Discontinued
Available until	2016-06-30
Type	CP DCDC 250W 24V 10A
Order No.	1313320010
Version	DC/DC converter, 31.2 V, 24 V
GTIN (EAN)	4050118142976
Qty.	1 pc(s).
Alternative product	2001810000

Creation date August 17, 2020 9:41:15 PM CEST

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Technical data

Dimensions and weights

Width	60	Width (inches)	2.362 inch
Height	130 mm	Height (inches)	5.118 inch
Depth	150 mm	Depth (inches)	5.905 inch
Net weight	1,300 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	Ambient temperature	-25 °C...+70 °C
Storage temperature	-40 °C...85 °C		

Probability of failure

MTBF	750,000 h
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input

Connection system	Screw connection	DC current consumption	Typ.: 11 A, Max.: 15.5 A
DC input voltage range	18 - 31.2 V DC	Input fuse (internal)	Yes
Input voltage, max.	31.2 V	Input voltage, min.	18 V
Inrush Current Limitation	Yes	Inrush current	Max. 10 A
Rated input voltage		Recommended back-up fuse	16 A / DI/II safety fuse, 16 A, char. B circuit breaker, 16 A, char. C, circuit breaker
	24 V DC		
Wire connection method	Screw connection		

Output

Continuous output current @ U _{Nominal}	12 A @ 45 °C, 10.7 A @ 55 °C, 7.5 A @ 70 °C	Nominal output current for U _{nom}	10 A @ 60 °C
Output current	10A	Output power	240 W
Output voltage	24 V	Output voltage	22.5...29.5 V
Output voltage type	DC	Overload protection	Yes
Parallel connection option	yes, max. 5 (without diode module)	Ramp-up time	≤ 100 ms
Rated output voltage	24 V DC ± 1 %	Reserve capacity @ U _{Nominal}	12 A for 1 min, ED = 5 %
Residual ripple, breaking spikes	< 50 mV _{pp} @ 24 V DC, I _N	Wire connection method	Screw connection

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General data

AC failure bridging time @ I_{nom}	> 7 ms @ 24 V DC	Adjacent	Yes, no gap
Ambient temperature	-25 °C...+70 °C	Clip-in foot	metal
Current limiting	> 120% I_N	Degree of efficiency	Typ.: 91%
Earth leakage current, max.	0.005 mA	Housing version	Metal, corrosion resistant
Humidity	5...95 %, no condensation	MTBF	> 500,000 h in accordance with IEC 61709 (SN29500)
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	Idle: max. 2 W, Nominal load: 24 W
Protection against over-heating	Yes	Protection against reverse voltages from the load	33...34 V DC
Protection degree	IP20	Short-circuit protection	Yes
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
Interference immunity test acc. to	EN 61000-4-2 (ESD) EN 61000-4-3 and EN 61000-4-8 (fields) EN 61000-4-4 (burst) EN 61000-4-5 (surge) EN 61000-4-6 (conducted) EN 61000-4-11 (dips)	Shock resistance IEC 60068-2-27	30 g in all directions

Insulation coordination

Humidity at operating temperature	5...95 %, no condensation	Insulation voltage	2.5 kV AC 1 min., 1.5 kV AC 1 min., 0.5 kV AC 1 min.
Pollution severity	2	Protection class	III, with no ground connection, for SELV
Surge voltage category	III	electrical isolation, input-earth	1.5 kV
electrical isolation, input-output	1.5 kV	electrical isolation, output-earth	0.5 kV

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, flexible , min. 0.5 mm²

Conductor cross-section, rigid , min. 0.5 mm²

Number of terminals 2 for (+, -)

Tightening torque, max. 0.6 Nm

Wire connection cross section, flexible
(input), max. 2.5 mm²

Conductor cross-section, AWG/kcmil ,
min. 26

Conductor cross-section, rigid , max. 6 mm²

Connection system Screw connection

Reverse polarity protection Yes

Tightening torque, min. 0.5 Nm

Connection data (output)

Conductor cross-section, AWG/kcmil ,
max. 12 AWG

Conductor cross-section, flexible , max. 2.5 mm²

Conductor cross-section, rigid , max. 6 mm²

Number of terminals 7 for (DCOK, 13,14, + + -)

Tightening torque, min. 0.5 Nm

Conductor cross-section, AWG/kcmil ,
min. 26 AWG

Conductor cross-section, flexible , min. 0.5 mm²

Conductor cross-section, rigid , min. 0.5 mm²

Tightening torque, max. 0.6 Nm

Connection data (signal)

Number of terminals 3

Wire cross-section, solid , max. 6 mm²

Wire connection method Screw connection

Wire cross-section, solid , min. 0.5 mm²

Signalling

Contact load (NO contact) max. 30 V DC / 0.5 A

DC OK transistor output "0" Output voltage ≤ 20.4 V

Floating contact Yes

Status indicator LED green (DC OK): output
voltage ≥ 21.6 V, LED red
(fault): output voltage ≤
20.4 V

DC OK short circuit resistant Yes

DC OK transistor output "1" (max. load) Output voltage ≥ 21.6 V
(max. 250 mA)

Relay on/off Output voltage > 21.6 V /
< 20.4 V

Approvals

Institute (GERMLLOYD)



Certificate No. (GERMLLOYD)

TAA00001H0

Institute (cULus)



Certificate no. (cULus)

E258476

Classifications

ETIM 6.0 EC002540

eClass 9.0 27-04-07-01

eClass 10.0 27-04-07-01

ETIM 7.0 EC002540

eClass 9.1 27-04-07-01

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Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity	DE_PA5200_160517_001.pdf
Brochure/Catalogue	CAT 4.3 ELECTR 15/16 EN
Engineering Data	EPLAN_WSCAD
User Documentation	Warrenty Information Power Supplies.pdf Operating Instructions

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Drawings

Electric symbol

