

DC-DC Converter DCDC900-24-30-K2

Ultracap Charger for Rail and Industrial Applications

Specification

General

Electrical safety EN 60950, VDE 0805
overload- and short-circuit protected

Electrical data

Input

Nominal voltage $U_N = 24 (16-32) V_{DC}$

Output

Ultracap. charging
Nominal voltage 29,5 V_{DC} (10-30V programmable)
Recharge voltage 27,5 V_{DC} (17,5-29,5V programmable)
Stability +/- 1%
Efficiency >85%
Maximum output power 900W
Output current 30A

Current limitation constant current, without disconnection,
but temperature limited

Ultracap protection two-stage, redundant and divers
OVP (via software), 31V hardware OVP

Environmental conditions

Ambient temperature -40 to +70 °C, according to EN50155

Relative humidity <75% average per year

Shock and vibration according to EN50155, „mounted into
the frame“
frequency range: 5-150 Hz
transfer frequency: 8,2 Hz

Amplitude below transit frequency: 7,5 mm
Amplitude acceleration above transit frequency: 20 m/s²

Isolation

Input 500V
Output 500V
Input to output 1500V

EMC

Burst according to EN50121-3-2,
2 kV, crit. A, direct coupled
Surge 1,8 kV / source 100 Ohm,
1,0 kV / source 2 Ohm,
(test is not valid for alarm contact)
Conductive HF 3V RMS 1kHz AM, 80%,
150 kHz - 80 MHz

ESD 8 kV air, 6 kV contact



Picture may differ from actual device.

Emitted disturbance immunity 10 V/m 80 MHz-1GHz, 80% AM,
900 MHz pulse modulated

Conductive disturbance emitted 99 dB μ V QP 150 kHz- 500 kHz,
93 dB μ V 500 kHz-30 MHz

Conductive disturbance emitted 30-230 MHz 47 dB μ V/m QP.
230MHz-1GHz 40 dB μ V/m QP.
10m measuring distance

Signals

Measurement output 1/3 output voltage (0-10V),
current limited by Poly-Switch
0,1 A, RXE 010

Alarm contact Interface potential free, Power Good
RS232 interface

Mechanical Data

Case material stainless steel
Size (W x D x H) 270 x 255 x 115 mm
Weight approx. 6,5 kg
Classification IP 54
Cooling convection via heat sink on wall side

Connection

Input: -X1 Harting HANQ5, male, Ag 4mm²
Signal 1: -X2 Harting HAN8U, female, Au 0,75mm²
Output: -X3 Harting HANQ2, female, 4-6mm²
Signal 2: -X4 D-SUB 9-polig, female

Warranty 24 months

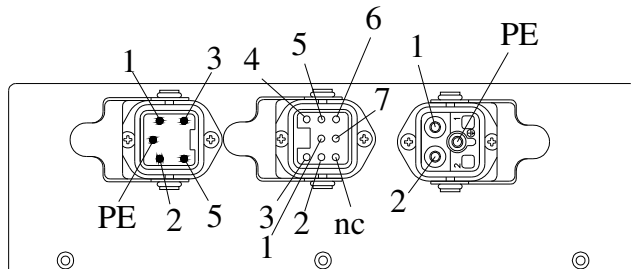
Order code DCDC900-24-30-K2

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Connection



Input -X1 Signal -X2 Output -X3

Input and output of the device are not connected to the case.

Input: -X1

1	Input voltage reference 0V
2	Input voltage reference 0V
3	Input voltage positive +U _{IN}
5	Input voltage positive +U _{IN}

Signal 1: -X2

2	Measurement voltage converter output reference (I<100 mA)
3	Measurement voltage converter output positive (I<100 mA)
4	Not connected
5	Not connected
6	Alarm normal open (NO, device off)
7	Alarm normal close (NC, device on)
1	Alarm common (C)

Output: -X3

1	Output voltage reference 0V
2	Output voltage positive +U _{OUT}

Signal 2: -X4

RS232 interface for parameterization of the voltage thresholds.

Mounting direction

The cooling fins must run vertically to guarantee an optimal air flow.

Connector height

The extent of the connector plugs (incl. mating plug) is 90 mm + bending radius of the connecting cables.

Ground bolt

The DCDC converter has a ground bolt M6 x 25 on the case's side. A cable diameter of at least 4 mm² is recommended for the connection. The ground bolt is not connected to the negative pole of the device.

Mechanical Data

