



Let's talk!

DC-DC Converter DCDC330-110-110

For Rail & Industrial Applications

Specification

General

Safety DIN EN 60950, VDE 0805
Overload- and short-circuit protected

Electrical Characteristics

Input

Input voltage nominal $U_E = 110V_{DC}$
Stat. voltage tolerance $\pm 30\%$ (77-143V_{DC})
Dyn. Voltage tolerance $\pm 40\%$ (66-154V_{DC})
Ripple 15%

Output

Output voltage 110V_{DC}, isolated, "floating"
Voltage tolerance $< \pm 1\%$
Dyn. regulation tol. $< \pm 2\%$
Ripple $< 100mV_{PP}$ (50MHz 50Ω)
Noise $< 200mV_{PP}$ (200MHz 50Ω)
Start-up delay time $< 200ms$
Output current $I_A = 0-3A$
Current limitation $I_S = 1,2 \times I_{A\ MAX}$
Overload characteristic permanently short-circuit-proof
Parallel operation possible for output power upgrade
Output power 300W
Efficiency $> 85\%$ at U_{NOM}

Ambient Characteristic

Ambient temperature -40 to +85°C, class TX according to DIN EN50155
Relative humidity max. 95%, condensation tolerable from time to time (with optional coating)
Cooling external forced cooling / e.g. fan level below module carrier
Derating without external cooling from +45°C / 2,5% per 1°C
Protection input current = fuse 6,3AT (high breaking capability); reverse polarity protection at the input; OVP at the output = $U_A + tol. + 10\%$



Picture may differ from actual device

EMC-Emission

Conductive according to DIN EN 50121-3-2

Radiated according to DIN EN 50121-3-2

EMC-Immunity

Transient/Surge 1,8kV according to DIN EN 50121-3-2, 12Ω

Burst 2kV according to DIN EN 50121-3-2

Electromagnetic field 20V/m according to DIN EN 50121-3-2

Insulation Test

Input to ground 1500V_{EFF} 1min.
Output to ground 1500V_{EFF} 1min.
Input to output 1500V_{EFF} 1min.

Creepage distance $> 2,5mm$ according to DIN EN 50124 PD3

Shock and Vibration

Vibration reliability according to DIN EN 50155 and EN 61373

Frequency range 5-150Hz
Transfer frequency 8Hz

Amplitude acceleration below the transfer frequency 2mm

Amplitude acceleration above the transfer frequency 5m/s²

Shock reliability 50m/s² all 3 axes according to DIN EN 61373 (extended)

MTBF $> 750.000h$ at 40°C



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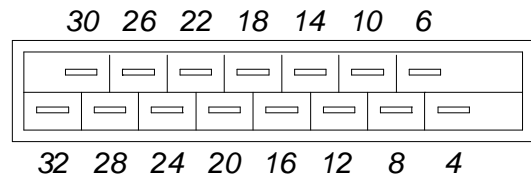
For Rail & Industrial Applications

Specification

Signal

Alarm contact	optocoupler signal contact for output voltage o.k.
Optical signals	LEDs (green) for U_E ; U_A
Remote ON/OFF	inhibit ON >13V to U_N or open; OFF <5V to 0V
Test point for U_A	2mm test jacks at the front panel

Pin Assignments



Connection Characteristics

Connector	H15 DIN 41612; rear side
Pin assignments	see table 1

Mechanical Characteristic

Dimensions	19"-alu cassette, 3U, 14TE
Weight	935g
Protection	IP 20

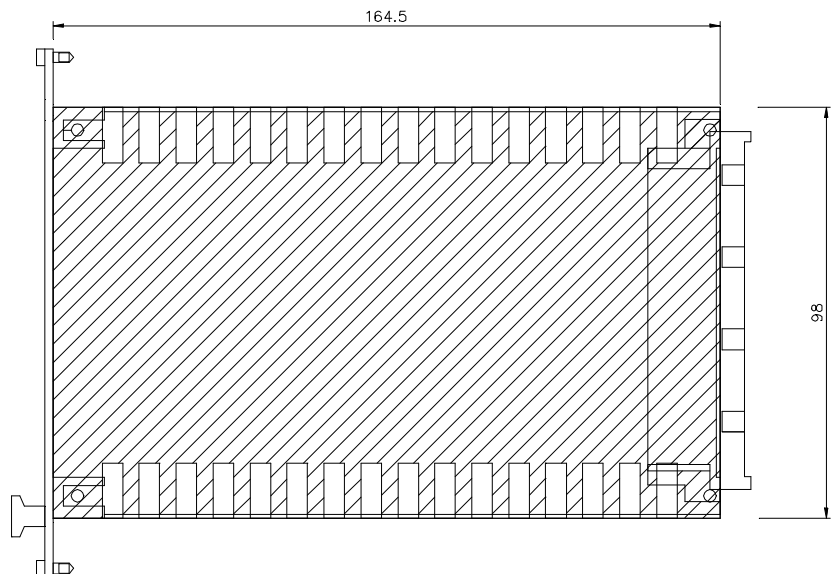
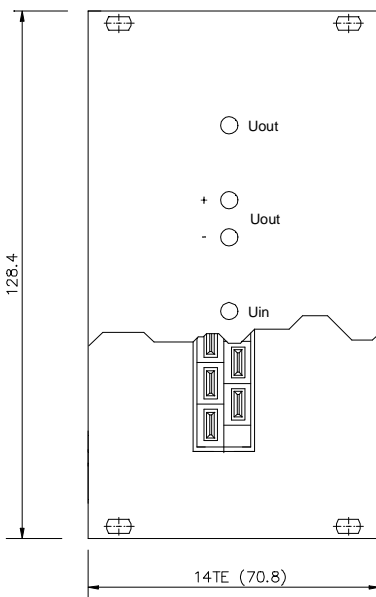
Warranty Time 24 months

Order Code DCDC330-110-110

(Optional formal coating and add. glued components.)

Table 1

Pin	Function	Abbreviation
4	Output voltage positive	+ U_A
6	Output voltage positive	+ U_A
8	Output voltage reference	0V U_A
10	Output voltage reference	0V U_A
12	Not connected	n.c.
14	Not connected	n.c.
16	Signal contact emitter	U_A o.k. / E
18	Signal contact collector	U_A o.k. / C
20	Not connected	n.c.
22	Remote ON/OFF	Inhibit E/A
24	Protective earth	PE
26	Input voltage positive	+ U_E
28	Input voltage positive	+ U_E
30	Input voltage reference	0V U_E
32	Input voltage reference	0V U_E



All dimensions in mm