

# DC-DC Converter DCDC300-110-110

## For Rail & Industrial Applications

### Specification



Picture may differ from actual device

#### General

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

#### Electrical Characteristics:

##### Input

Input Voltage Nominal	$U_E = 110$ VDC
Stat. Voltage Tolerance	$\pm 30\%$ (77 – 143 VDC)
Dyn. Voltage Tolerance	$\pm 40\%$ (66 – 154 VDC)
Ripple	15%

##### Output

Output Voltage	110 VDC, isolated, "floating"
Voltage Tolerance	$< \pm 1\%$

Dyn. Regulation Tol.	$< \pm 2\%$
Ripple	$< 100$ mV <sub>pp</sub> (50 MHz 50 $\Omega$ )

Noise	$< 200$ mV <sub>pp</sub> (200 MHz 50 $\Omega$ )
-------	---

Start-up Delay time	$< 200$ ms
---------------------	------------

Output Current	$I_A = 0-2,7$ A
Current Limitation	$I_S = 1,2 \times I_{A \max.}$

Overload Characteristic	permanent short circuit secured
-------------------------	---------------------------------

Parallel Operation	for Output Power Up-grade possible
--------------------	------------------------------------

Output Power	300 W
--------------	-------

Efficiency	$> 85\%$ @ $U_{Nom}$
------------	----------------------

##### Ambient Characteristic:

Ambient Temperature	-40 to +85°C, Class TX according DIN EN50155
Relative Humidity	max. 95%, with timely condensing (in combination with Option: -1: Coating)
Cooling	Ext. Forced Cooling / e.g. Fan Level below Module Carrier
Derating	without external cooling from +50°C / 2,5% per 1°C
Protection	Input Current = Fuse 6,3 AT (high breaking capability); Reverse polarity protection at the Input; OVP at the Output = $U_A + Tol. +10\%$

##### EMC-Emission:

Conductive	according DIN EN 50121-3-2
------------	----------------------------

Radiated	according DIN EN 50121-3-2
----------	----------------------------

##### EMC-Immunity:

Transient / Surge	1,8 kV according DIN EN 50121-3-2	12 $\Omega$
-------------------	-----------------------------------	-------------

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

Electro Magnetic Field	20 V/m according DIN EN 50121-3-2
------------------------	-----------------------------------

##### Insulation Test:

Input to Ground	1500 V <sub>eff</sub> 1 min.
Output to Ground	1500 V <sub>eff</sub> 1 min.
Input to Output	1500 V <sub>eff</sub> 1 min.
Creeping distance	$> 2,5$ mm according DIN EN 50124 PD3

##### Shock- and Vibration:

Vibration reliability	acc. DIN EN 50155 and EN 61373
Frequency Range	5-150 Hz
Transfer Frequency	8 Hz
Amplitude Acceleration Below of the Transfer Frequency	2 mm
Amplitude Acceleration Above of the Transfer Frequency	5 m/s <sup>2</sup>
Shock Reliability	50 m/s <sup>2</sup> all 3 Axis acc. DIN EN 61373 (extended)
MTBF	$> 750.000$ h @ 40°C

*Let's talk!*

# DC-DC Converter DCDC300-110-110

For Rail & Industrial Applications

## Specification

### Signal

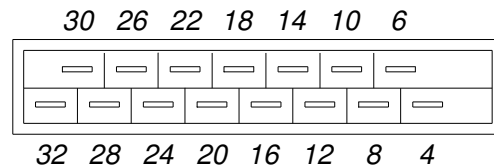
Alarm contact      Optocoupler Signal contact for Output Voltage o.k.

Optical Signals      LED's (green) for  $U_E$ ;  $U_A$

Remote ON/OFF      Inhibit ON >13V to  $U_N$  or open; OFF <5V to 0V

Test point for  $U_A$       2 mm Test Contacts at the Front panel

### Pin Assignments:



### Connection Characteristics:

Connector      H15 DIN 61612; rear side

Pin Assignments      see Table 1

### Mechanical Characteristic:

Dimension      19"-Alu Cassette, 3U, 14 TE

Weight      935 g

Protection      IP 20

Warranty Time      24 Month

### Order Code

DCDC300-110-110

### Options:

-1      Formal Coating  
add. Glued components

Table 1:

Pin	Function	Abbreviation
4	Output Voltage positive	$U_A +$
6	Output Voltage positive	$U_A +$
8	Output Voltage negative	$U_A -$
10	Output Voltage negative	$U_A -$
12	Not connected / Sense positive	N.C. / S+
14	Not connected / Sense negative	N.C. / S-
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 negative	$U_E -$
32	Input Voltage negative	$U_E -$

