DC-DC CONVERTER 24/12 V DC & 24/24 V DC

CD5.241-S1
DC-DC converter 24/24 VDC. 5A. Relay

- 32 mm wide
- Isolated output voltage
- Wide input voltage range
- 20 % power boost

PRODUCT DESCRIPTION

The Puls Dimension DC-DC converter features high efficiency, very compact dimensions and mounting on DIN rail. The input voltage can come from, for example, a power supply unit, batteries or solar panels. The output is galvanically isolated from the input. Examples of fields application are installation at the end of a long cable to stabilize voltage, conversion of one voltage to another or for isolation of specific loads. The DC-DC converters are equipped with a soft-start function, entailing that the current gradually rises to the nominal value. In this way, high starting currents are avoided that can cause voltage drops on the primary side and produce start-up problems. A 20 % power boost provides additional power resources during temporary current peaks. Article CD5.241-S1 is equipped with status outputs for controlling both the output voltage and the input voltage.

We recommend free space of 40 mm above the unit, 20 mm under and 5 mm at the sides.

SPECIFICATIONS

Input voltage DC	24 V
Input voltage dc min	18 V DC
Input voltage dc max	32.4 V DC
Input Capacitance	3000 µF
Inrush current	Typ. 1,2 A @ 24 V DC
Max entrance tripple	5 V pp
Type Power Supply	DC-DC
Start-Up Delay	650 ms
Output voltage	24 V DC
Output voltage min	24 V DC

Output voltage max	28 V DC
Output Current	5 A
Effect	120 W
Power Reduction Of 60 To 70 ° C	3 W/°C
Ripple. max	50 mV pp
Temperature Range Without Derating From	-25 °C
Temperature Range Without Derating To	60 °C

Efficiency	90.2 %
Life span	60000 h @ 24 V DC, 5 A, 40 °C
MTBF (IEC 61709)	1048000 @ 24 V DC, 5 A, 40 °C

Width	32 mm
Height	124 mm
Depth	102 mm
Weight	0.45 kg

Clamp type	Spring-clamp

Series	Dimension C
Approvals	ABS, ATEX, CB, CE, CSA, GL, IECEx, UL
DC relay output	Yes
Material Protection	Aluminium
Keep time	Typ. 6 ms @ 24 V DC
IP Class	IP20

Fig. 5-1 **Output voltage vs. output current at 24Vdc input voltage, typ.**

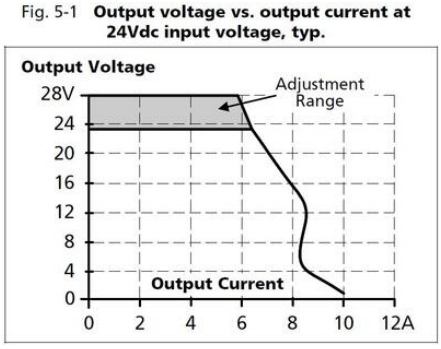

Fig. 13-1 **Output current vs. ambient temp.**

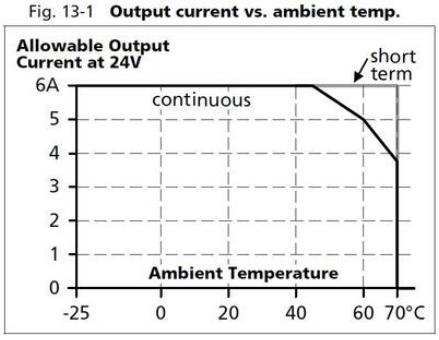

Fig. 7-1 **Efficiency vs. output current at 24V output and 24Vdc input voltage, typ.**

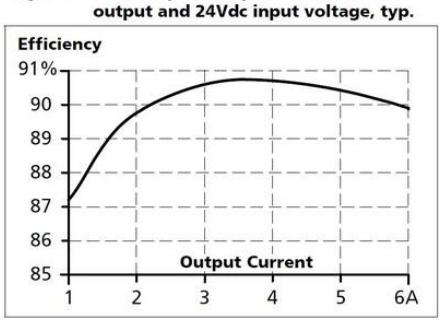

Fig. 7-2 **Losses vs. output current at 24V output and 24Vdc input voltage, typ.**

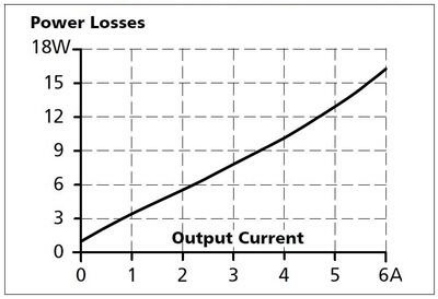

Fig. 9-1 **Front side**

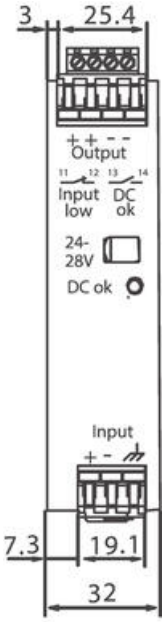

Fig. 21-2 **Side view**