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

CD5.121
PSU 24V dc I/P 12V dc 8A 96W O/P



- 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.

TECHNICAL DATA

INPUT DATA

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

OUTPUT DATA

Output voltage	12 V DC
Output voltage min	12 V DC
Output voltage max	15 V DC

Output current	8 A
Power	96 W

EFFICIENCY / LIFETIME / MTBF

Efficiency	88.2 %
Life span	63000 h @ 12 V DC, 8 A, 40 °C
MTBF (IEC 61709)	1161000 @ 12 V DC, 8 A, 40 °C

DIMENSIONS

Width	32 mm
Height	124 mm
Depth	102 mm
Weight	0.425 kg

OTHER

Approvals	ABS, ATEX, CB, CE, CSA, GL, IECEx, UL
Keep time	Typ. 7 ms @ 24 V DC
IP class	IP20
Clamp type	Screw on
Material protection	Aluminium
Ripple max	75 mV pp
Series	Dimension C
Power drop from +60 °C to + 70 °C	2.5 W/°C
Temperature min without derating	-25 °C
Temperature max without derating	60 °C
Startup delay	420 ms

Type Power Supply	DC-DC

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

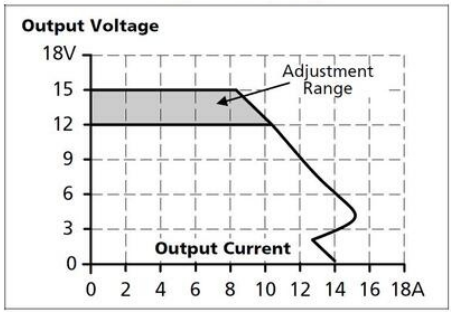

Fig. 13-1 **Output current vs. ambient temp.**

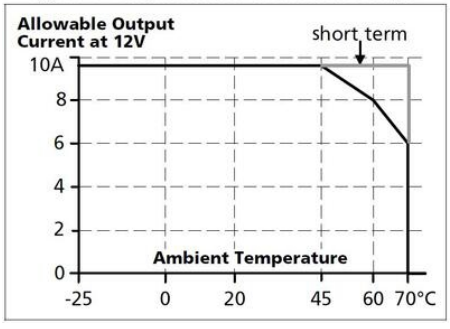

Fig. 7-1 **Efficiency vs. output current at 12V output and 24Vdc input voltage, typ.**

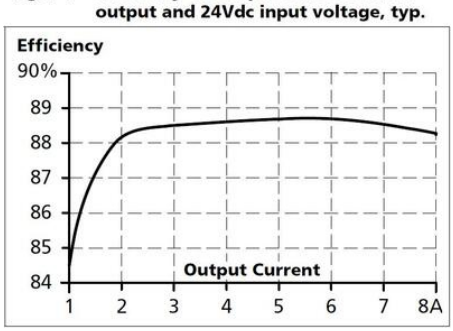

Fig. 7-2 **Losses vs. output current at 12V output and 24Vdc input voltage, typ.**

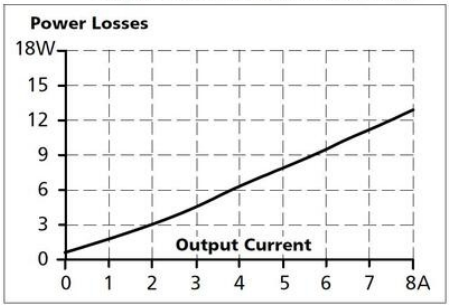

Fig. 9-1 **Front side**



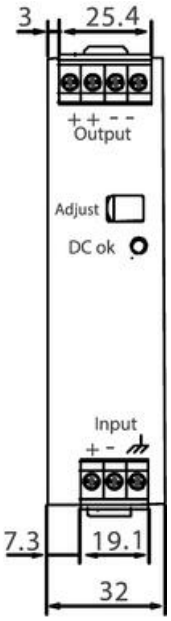

Fig. 19-2 **Side view**

