

**DC-DC CONVERTER 110/24 V DC CP10**

110/24 V DC, 8,3 A

CP10.241-60  
DC-DC conv. 110/24VDC 200W 8,3A, Railway

- Width 39 mm
- 94,5 % efficiency
- Acc. to EN 50155 railway application standard
- Conformal coated PC-boards
- Wide temperature range -40°C...+70°C

**PRODUCT DESCRIPTION**

The DC/DC converter CP10.241-60 is designed specifically for railway & transportation applications. It is approved according to the EN 50155 standard, which is an international standard covering electronic equipment used on rolling stock for railway applications. The standard covers aspects such as temperature, humidity, shock, vibration, EMI and other parameters. Because of these requirements, the unit is equipped with conformal coated pc-boards.

The unit features a DC-OK signal contact for remote monitoring, and quick-connect spring-clamp terminals for a reliable connection even when mechanical vibration and shock are involved. The unit also covers an extreme wide temperature range from -40°C up to +70°C with full output current.

This DC/DC converter comes in a very compact housing and requires only 39mm space on the DIN-rail due to the high efficiency and low power losses. The high efficiency is achieved by utilizing cutting edge technology and other unique design techniques.

**TECHNICAL DATA****INPUT DATA**

Max entrance tripple	15 V pp
Inrush current	Typ. 2,5 A @ 110 V DC
Input voltage dc max	154 V DC
Input voltage dc	110 V
Input voltage dc min	67 V DC

**OUTPUT DATA**

Output voltage min	24 V DC
Output voltage	24 V DC
Output voltage max	28 V DC

Power	200 W
Output current	8,3 A

## EFFICIENCY / LIFETIME / MTBF

Life span	119000 h @ 110 V DC, 8,3 A, 40 °C
Efficiency	94,5 %
MTBF (IEC 61709)	tbd

## DIMENSIONS

Weight	0,62 kg
Depth	117 mm
Width	39 mm
Height	124 mm

## OTHER

IP class	IP20
Startup delay	600 ms
Ripple max	50 mV pp
Clamp type	Spring-clamp
Temperature min without derating	-40 °C
Series	Dimension C
Keep time	Typ. 45 ms @ 110 V DC, 8,3 A
Approvals	CE, EN 50155
Temperature max without derating	70 °C
Material protection	Aluminium
Type Power Supply	DC-DC
Conformal coated	Yes
DC relay output	Yes

Fig. 6-2 Dynamic output current capability, typ.

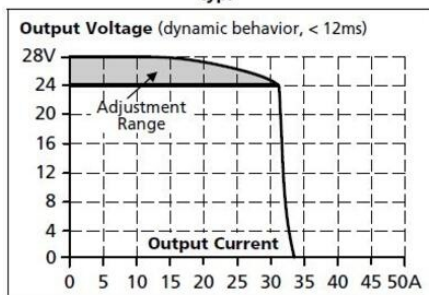


Fig. 6-1 Output voltage vs. output current, typ.

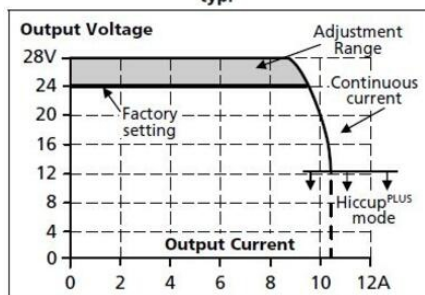


Fig. 16-1 Output current vs. ambient temp. at 24V output voltage

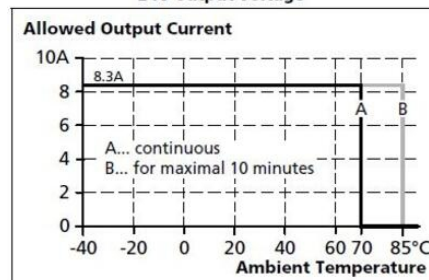


Fig. 10-1 Efficiency vs. output current, at 24V, typ.

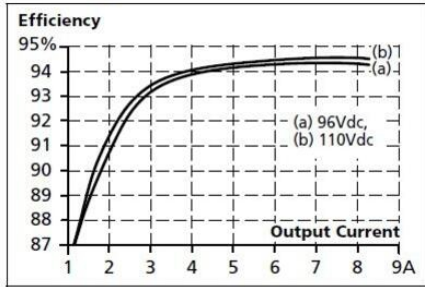


Fig. 6-3 Short-circuit on output, Hiccup<sup>PLUS</sup> mode, typ.

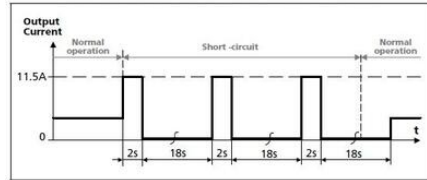


Fig. 14-1 Front side



Fig. 22-1 Front view

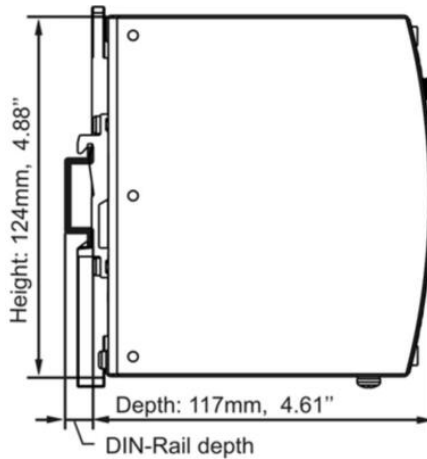
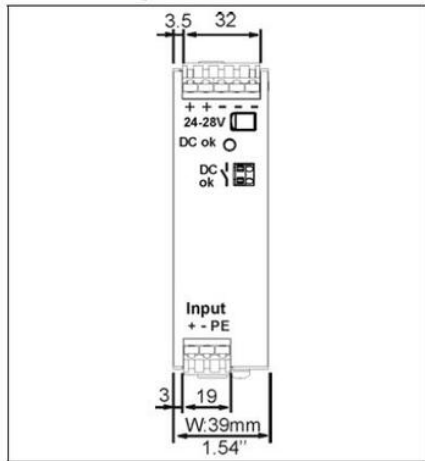


Fig. 6-2 Dynamic output current capability, typ.

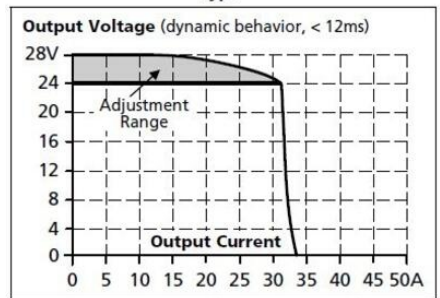


Fig. 6-1 Output voltage vs. output current, typ.

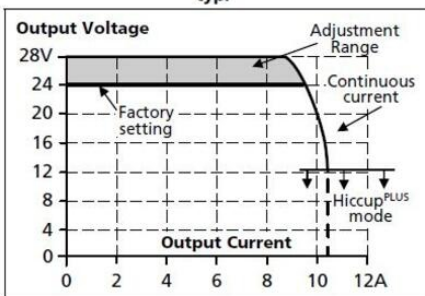


Fig. 16-1 Output current vs. ambient temp. at 24V output voltage

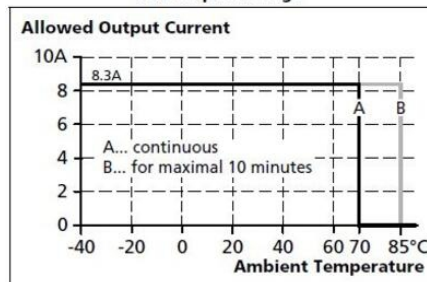


Fig. 10-1 Efficiency vs. output current, at 24V, typ.

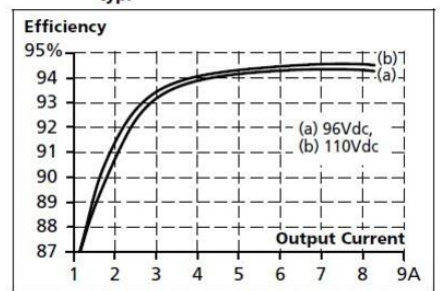


Fig. 6-3 Short-circuit on output, Hiccup<sup>PLUS</sup> mode, typ.

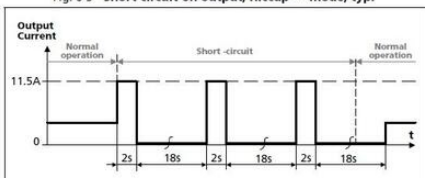


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