# DC-DC CONVERTER 110/24 V DC

110/24 V DC, 8,3 A

CP10.241-60
PSU 96-110 V DC/24-28 V DC, 8.3 A, Railway EN50155




- 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.

# SPECIFICATIONS

| | |
|---|---|
| **Input voltage DC** | 110 V |
| **Input voltage dc min** | 67 V DC |
| **Input voltage dc max** | 154 V DC |
| **Inrush current** | Typ. 2,5 A @ 110 V DC |
| **Max entrance tripple** | 15 V pp |
| **Type Power Supply** | DC-DC |
| **Start-Up Delay** | 600 ms |

| | |
|---|---|
| **Output voltage** | 24 V DC |
| **Output voltage min** | 24 V DC |
| **Output voltage max** | 28 V DC |

| | |
|---|---|
| **Output Current** | 8.3 A |
| **Effect** | 200 W |
| **Ripple. max** | 50 mV pp |
| **Temperature Range Without Derating From** | -40 °C |
| **Temperature Range Without Derating To** | 70 °C |

| | |
|---|---|
| **Efficiency** | 94.5 % |
| **Life span** | 119000 h @ 110 V DC, 8,3 A, 40 °C |
| **MTBF (IEC 61709)** | tbd |

| | |
|---|---|
| **Width** | 39 mm |
| **Height** | 124 mm |
| **Depth** | 117 mm |
| **Weight** | 0.62 kg |

| | |
|---|---|
| **Clamp type** | Spring-clamp |

| | |
|---|---|
| **Series** | Dimension C |
| **Approvals** | CE, EN 50155 |
| **DC relay output** | Yes |
| **Material Protection** | Aluminium |
| **Keep time** | Typ. 45 ms @ 110 V DC, 8,3 A |
| **IP Class** | IP20 |

| | |
|---|---|
| **Conformal coated** | Yes |

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

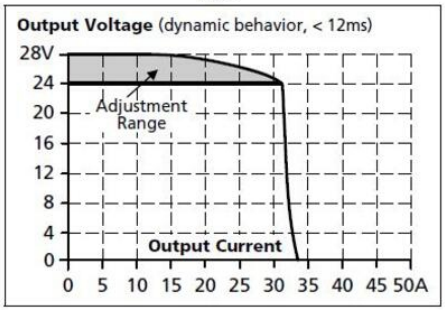



Fig. 6-1 **Output voltage vs. output current, typ.**

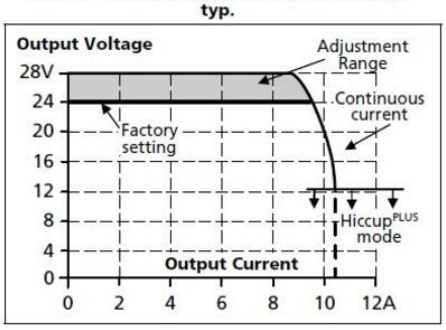



Fig. 16-1 **Output current vs. ambient temp. at 24V output voltage**

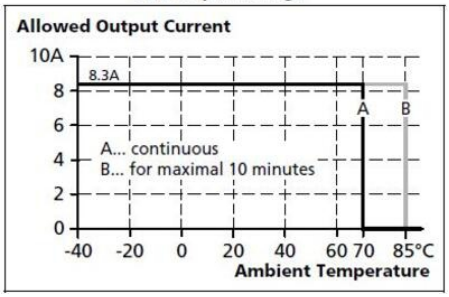


Fig. 10-1 **Efficiency vs. output current, at 24V, typ.**

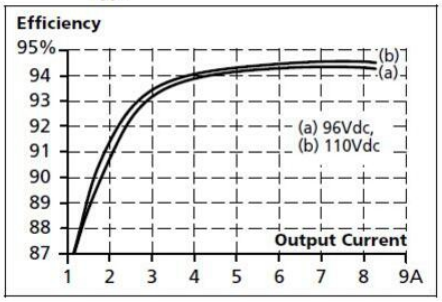



Fig. 6-3 **Short-circuit on output, Hiccup$^{PLUS}$ mode, typ.**

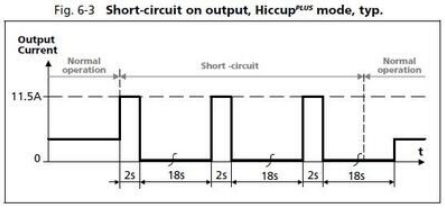
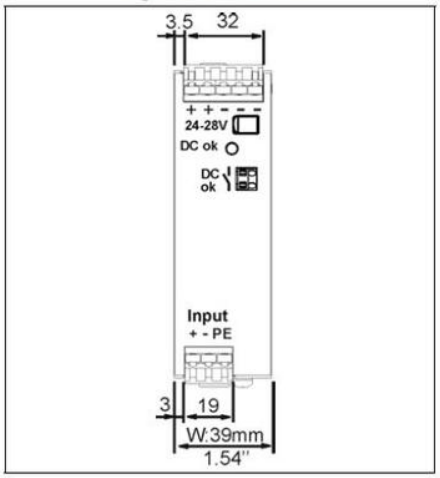



Fig. 14-1 **Front side**




Fig. 22-1 **Front view**



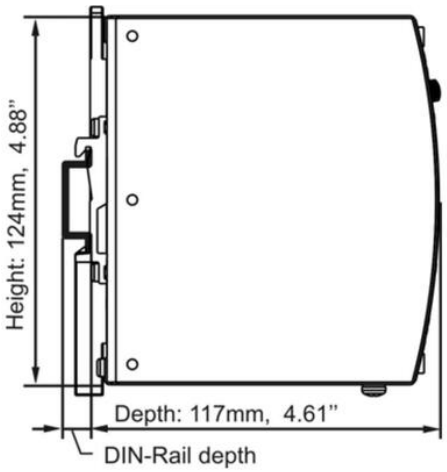




Fig. 6-2 **Dynamic output current capability, typ.**

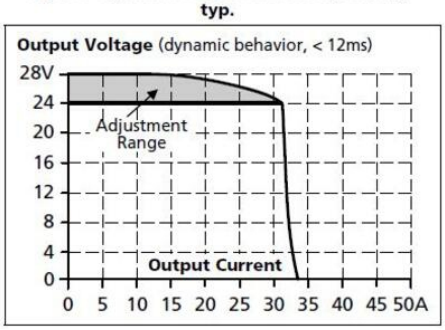



Fig. 6-1 **Output voltage vs. output current, typ.**

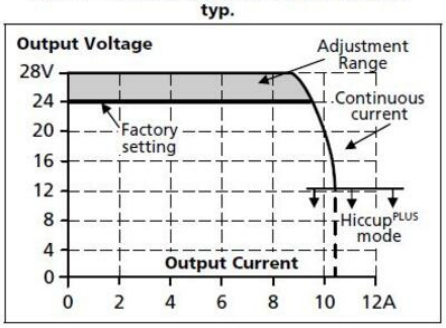



Fig. 16-1 **Output current vs. ambient temp. at 24V output voltage**

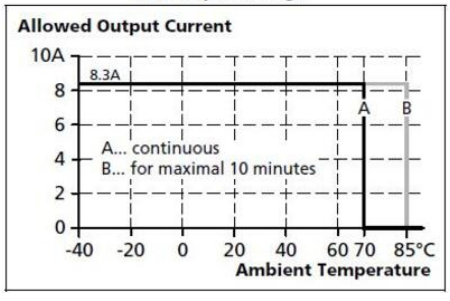



Fig. 10-1 **Efficiency vs. output current, at 24V, typ.**

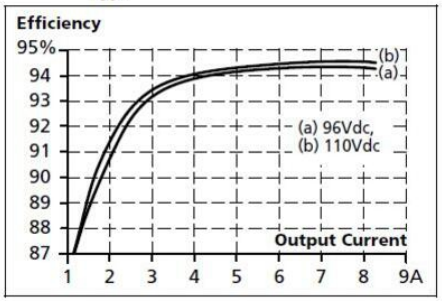



Fig. 6-3 **Short-circuit on output, Hiccup$^{PLUS}$ mode, typ.**

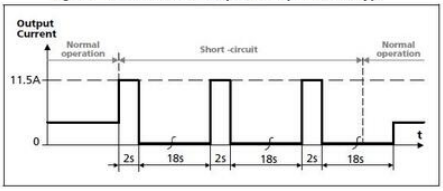


Fig. 14-1 **Front side**




Fig. 22-1 **Front view**

