



MPF 105 1D02

DC/DC CONVERTER



Description

Designed to supply doors security systems, this isolated-DC/DC converter adapts 24 V voltage into 28 V. This converter is compliant with railway standards.

Input Specifications

Product reference	MPF 105 1D02
Nominal input voltage	24 VDC
Input voltage range	16,8 to 30 VDC
Input transients voltage	14,4 VDC, 33,6 VDC during 100 ms
Reverse input voltage protection	Yes, by reverse diode
Inrush current limitation	< 10 In

Output Specifications

Product reference	MPF 105 1D02
Nominal output voltage	28.5 VDC
Output voltage ripple p-p (WB 0 to 30 MHz)	285 mV
Nominal output current	3.4 A
Crossed regulation (load + line)	1%
Nominal output power	96,9 W
Efficiency	> 85%
Long term stability during 8 hours (after 1/2 hour operating)	< 0.3%
Thermal protection	No
Switching frequency	> 25 kHz, fixed
Output current limitation	> 4.4 A
Oversvoltage protection	Yes, by Transil
Permanent short circuit protection	Yes
Power Good	Dry contact closed
	Green LED on

Environmental Details

Product reference	MPF 105 1D02
Operating temperature range	-25°C to +70°C
Derating	Without derating
Storage temperature range	-40°C to +85°C
Temperature coefficient	< 2.10 ⁻⁴ /°C
Relative humidity at 45°C	95%
Cooling	Natural convection
Insulation resistance	> 100 MΩ (500 VDC)
Dielectric strength	500 VAC between primary / secondary + signal
	500 VAC between primary + secondary + signal / ground
MTBF (according to UTE C 80810)	> 620 000 h at 40°C
Coating	PCB coated with varnish
Protection index	IP 20





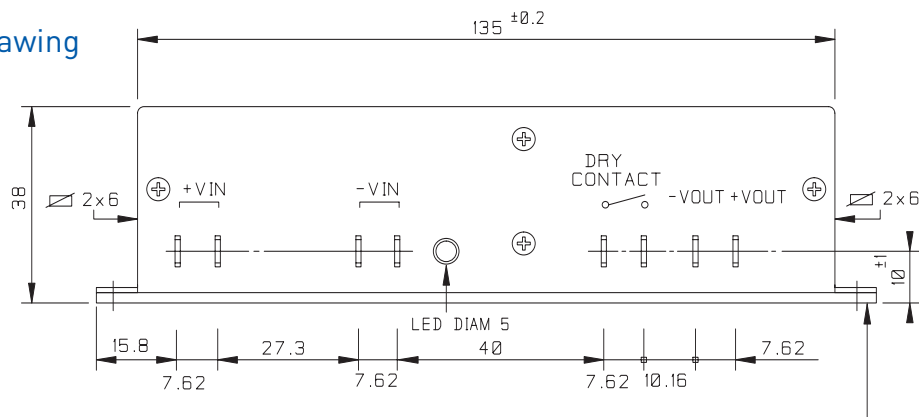
Applicable Norms

Item	Reference	Level	Compliance
Conducted + radiated emissions	EN 55011		X
Railway rolling stocks applications	EN 50155		X
Electrostatic discharges	EN 50121-3-2		X
Vibrations	EN 61373		X

Mechanical Characteristics

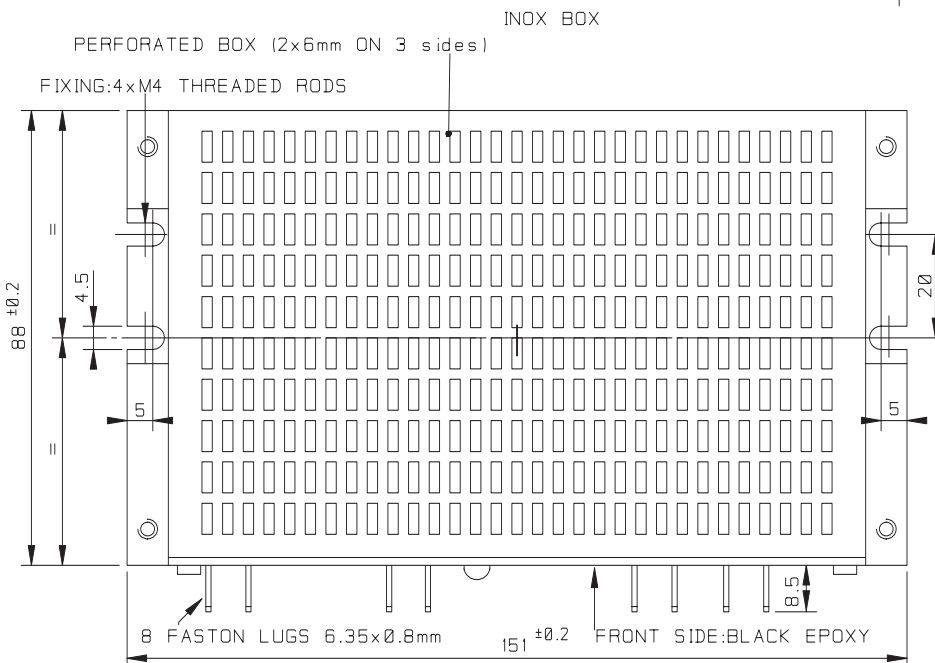
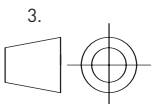
Product reference	MPF 105 1D02
Box material	PCB on aluminium plate (2 mm), inox box
Potting	No
Dimension	151 x 88 x 38 mm
Weight	410 g
Fixing	4 x M3 threaded rods
Input connector	4 Faston 6,35 x 0,8
Output connector	2 Faston 6,35 x 0,8
Power Good connector	2 Faston 6,35 x 0,8

Technical Drawing



NOTES

1. All dimensions in mm
2. Specifications subject to change without notification



FIXING REQUIREMENT:
THE PLATE MUST BE FIX ON A METALLIC SURFACE.
USE OF THERMIC GREASE IS NOT NECESSARY.