



> Description

The DC/DC converter is dedicated to supply DC equipment in railway applications. This product has a very wide input range and can accept input nominal voltage from 24 to 110 VDC.

> Input Specifications

Product reference	CCR 050
Nominal input voltage	24 VDC, 36 VDC, 48 VDC, 72 VDC, 110 VDC
Input voltage range	16,8 to 137,5 VDC
Reverse input voltage protection	Yes, by reverse diode
Inrush current limitation	Yes
Over voltage protection	Yes

> Output Specifications

Product reference	CCR 050
Nominal output voltage	24 VDC
Tolerance	± 5 %
Nominal output current	2,1 A
Nominal output power	50 W
Efficiency	> 85% at 72 V input voltage
Thermal protection	Yes
Over voltage protection	Yes - input voltage must be disconnected for recovery
Output current limitation	> 2,5 A
Permanent short circuit protection	Yes

> Environmental details

Product reference	CCR 050
Operating temperature range	-40°C to +70°C
Derating	Without derating
Storage temperature range	-40°C to +85°C
Temperature coefficient	< 2.10 ⁻⁴ /°C
Relative humidity at 40°C	> 95%
Cooling	Natural convection
Insulation resistance	Primary + secondary / mass > 100MΩ (500 VDC)
Dielectric strength	Primary / secondary + mass: 1500 VAC eff Secondary / mass: 1500 VAC eff
MTBF according to UTE C80810	> 200 000 h at 40°C
Coating	PCB coated with varnish
Protection index	IP20





> Applicable Norms

Item	Reference	Compliance
Railway application	EN 50155	X
Electrostatic discharges	EN 50121-3-2	X
Conducted + radiated emissions	EN 50011	X
Vibrations	EN 61373	X

> Mechanical Characteristics

Product reference	CCR 050
Box (option)	Metal cover
Potting	No
Dimension	105 x 100 x 35,5mm
Fixing	4 holes Ø 3,2mm
Input connector	2 faston clip 6,35
Output connector	2 faston clip 6,35

> Technical Drawing

