



SCHAFFLER
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600
PLATFORM

DCFORMER

Fully isolated dc to dc converter for converting battery voltage from 74 or 110 Vdc to 600 Vdc for the purpose of supplying power to multiple variable frequency inverters on rolling stock. DCformers can be operated in parallel in order to increase the output power



DC Former

Output Power	8 kW at 74 Vdc supply (power controlled in software) 10 kW at 110 Vdc supply 3 kW with 24 Vdc output
Input voltage	74 Vdc to 132 Vdc
Output voltage	600 Vdc (optional 450 Vdc for 230 Vac 3-phase inverters) (optional 24 Vdc for locomotive system supply)
Output regulation	Better than $\pm 5\%$
Output current	13 amps when supply is 74 Vdc 16 amps when supply is 110 Vdc
Output start-up	3 seconds
Application	Rail, in locomotives or passenger cars
Over current	120% for 30 seconds
Short circuit	Protection included
Under voltage trip	65 volt – converter restarts when voltage recovers
Over voltage trip	140 Vdc - converter restarts when voltage recovers
Operating frequency	Greater than 25kHz
Start control	Option for start contacts or start on power up
Ambient temperature	-25 to 60 °C, up to 75 °C at start up
Temperature protection	Thermostatically protected. Heatsink trips at 105 °C and resets at 75°C
Noise level	58 dBA

SCHAFFLER Pty Ltd
Unit 4, 4 Prosperity Parade
Warriewood NSW 2104
p | 02 9997 1010
f | 02 9997 8996



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Altitude	1000 metres
Protection	IP56 totally enclosed Alternatively forced ventilated from attached fans
Fault relay Fault diagnostics	Potential free change over contacts, 1 amp 30 volts DC, 3 leds
Weight	Less than 20 kg
Lifetime	Electrolytic capacitor lifetime to exceed 10 years at 30°C ambient. Load duty 60% at 8/6kW, 100% at light load.

Standards

IEC 61373	Shock & Vibration level
EN 50155	Electronic equipment used on rolling stock equipment
IEC 1287-1	Power converters installed on board rolling stock
EN50121-3-2	Electromagnetic Compatibility
IEC 61000-4-3	EMC standard
IEC61373	Railway application rolling stock equipment Shock and Vibration testing
EN 50155	Electronic equipment used on rolling stock
AS 3000	Wiring regulations

