



C.M. TECHNOLOGY

Designed and Manufactured in Australia

www.cmtechnology.com.au

PRODUCT SHORTFORM

Rev. A3

Tel: +61 (2) 9764 5655

Railway DC-DC Converter



MPS 7412

The MPS 7412 is a Panel-mount Railway DC-DC Converter.

- High Efficiency (91%)
- 74V DC Input
- Long life electrolytic capacitors
- Built-in constant current limiting circuit
- 4000V DC Input/Output Isolation



Other Input and Output Configurations available upon request



A Caspian Technology Company

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Specifications for MPS 7412:

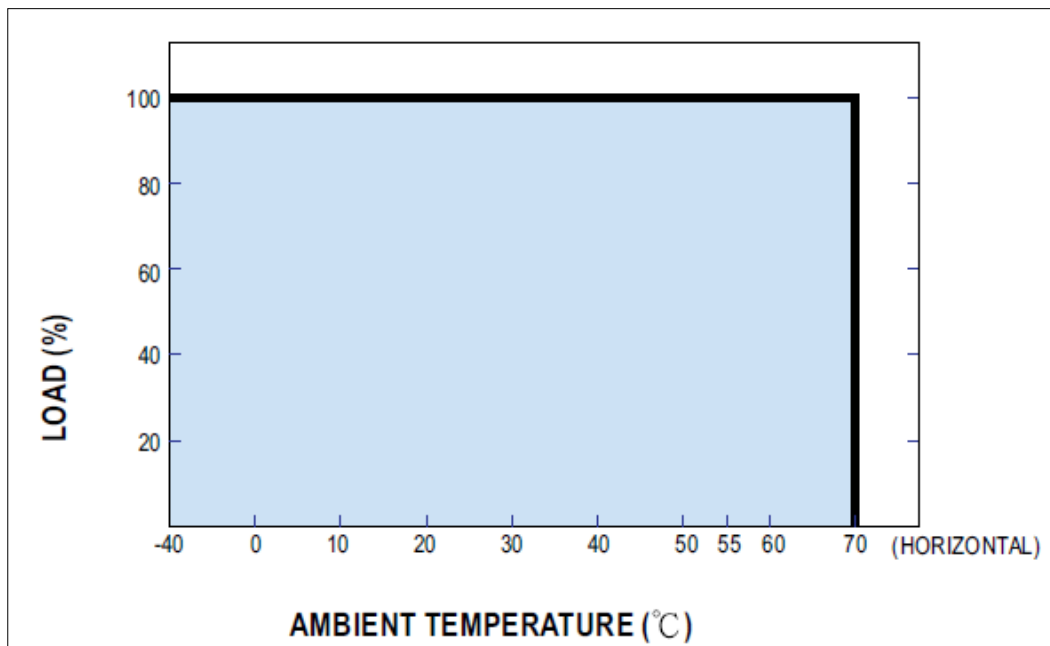
Output DC Voltage	12V
Output Rated Current	8A
Current Range	0-8A
Ripple & Noise (Maximum)	120mV peak-to-peak
Voltage Tolerance	±2.0%
Line Regulation	±0.2%
Input Voltage Range (Continuous)	67.2 - 143V DC
Input Voltage Range (1 Sec.)	57.6—154V DC
Input DC Current (Typical)	2A/74V
Efficiency (Typical)	91%
EMC Immunity	EN50155 (EN50121-3-2) Light Industrial, Criteria A
EMC Emission	EN55022 (CISPR22) Conduction Emission: Class A, Radiation Emission: Class B, EN50155 (EN50121-3-2)
Isolation Resistance	Input-Output, Input-Ground, Output-Ground: 100 MΩ / 500V DC / 25°C / 70% Room Humidity
Withstand Voltage	Input-Output: 4KV DC, Input-Ground: 2.5KV DC, Output-Ground: 2.5KV DC
Safety Standards	IEC60950-1, EN50155 (IEC60571)
Vibration	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axis; Mounting Compliance to IEC61373
Working Temperature	70°C at 60% load by free air convection




Overview:

The MPS 7412 has been designed to suit the unique requirements of DC-DC converters used in railway applications.

By utilising our years of technical knowledge and real-world applications gained from the proven PSTR series, the MPS 7412 has been designed for railway with DC 74V supplies, without any voltage selection being needed.



Derating Curve

The MPS 7412 is an example of a generic approach to railway power system design. Essentially the same circuit configuration is used for all switchmode power units supplied made by C.M. Technology.

Manufactured using switchmode electronics, the MPS 7412 is designed for a high energy efficiency of >91%. This relatively high efficiency allows a maximum 55°C ambient working temperature. Our high quality components are housed in a quality case, allowing for easy mounting of equipment modules.

The finished DC-DC converters are all burnt in at full load to provoke any infant mortality failures, with some products held on long term burn-in.

The MPS 7412 is compliant with the Australian C-Tick Standard.

