

EN 50 155-certified, encapsulated DC-DC converter to IP65

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With patented thermoselective vacuum encapsulation and IP65 sealing, MTM Power's PCMDS150WK-IP65 DC-DC converter from Charcroft provides rugged reliability in rail applications. Wide input voltage ranges, covering rail inputs from 24 to 110VDC, and a galvanically isolated 24V output are combined with a power rating of 150W and high efficiency. Customisation of the standard converter can include adaptations to meet specific mechanical, electrical or environmental parameters for individual rail projects.



The patented thermoselective vacuum encapsulation, developed by MTM Power and featured in the PCMDS150 DC-DC converters, guarantees uniform heat dissipation within the modules as well as excellent resistance against environmental factors such as shock, vibration and moisture. Additional environmental protection is provided by IP65 sealing which complies with EN 60 068-2-1/2-2/2-11/2-14/2-30.

A push-pull topology enables the PCMDS150 to achieve high efficiency combined with wide input voltage ranges of 24V, 36V, 48V, 60V, 72V, 80V, 96V and 110V. A transformer and secondary linear choke provide a galvanically isolated output voltage of 24V which is adjusted by pulse-width modulation using the current-mode principle.

The converters need no ground load and are short-circuit protected by primary and secondary power limiting. Convection cooling via the integrated heat-sink eliminates the need for external fans which can make converters susceptible to failure.

The PCMDS150 converters provide maintenance-free operation, fulfil the low-voltage directive and are prepared for the use in devices with Protection Class II.