

High performance DC/DC converter HFBC250-2DW - 250 watts for railway applications and more



The brand new HFBC250-2DW with 250 W power offers an ultra-wide input range from 14.4 V to 154 V and is ideally suited for power-hungry applications.

AUTRONIC is expanding its family of railway-grade DC/DC converters with ultra-wide input with the brand new HFBC250-2DW/O. The DC/DC converter with 250 watts of output power covers the input range from 14.4 V to 154 V with a single device, setting new standards in its class. It fulfils all requirements for use in railway technology in accordance with EN 50155 and EN50121-3-2 in a small footprint and flat design. It can be used for PC boxes (CompactPCI Serial); in addition to the main output voltage, an auxiliary voltage of 5 V (5 W) is available.

The railway-specific EMC requirements (surge, burst, emission, immunity, etc.) are met without any additional external components. Other features include active inrush current limitation (30 A), active reverse polarity protection and protection against overcurrent, overvoltage and overtemperature (OVP, OCP, OTP). The integrated 10 ms hold up time helps the application in the event of a short-term power failure.

As all European input voltages are covered by a single converter, this simplifies the design-in and thus the approvals of customer applications. The galvanically isolated HFC250-2DW/O was developed according to temperature class OT4, ST1 and ST2 and can be operated at 250 W without any derating up to 70 °C, at least 10 minutes up to 85 °C. The plug-and-play solution facilitates design-in in the customer application with impressive efficiency of 91 % to 95 %. Full performance with high efficiency is guaranteed over the entire temperature range for the permanently permissible input voltage range.

In addition to natural convection, the simple installation of the Autronic converter only requires contacting the underside to dissipate the heat generated to an enclosure. The selection of the circuit board material is based on fire protection tests that have already been carried out in accordance with EN 45545-2 (HL 3).

The version with 12 V output voltage is currently available, the versions with 24 V and 48 V are still being realized.

February 2023

For queries:

Giovanni Rodio

Tel: +49 (0) 7147/24-232

giovanni.rodio@autronic.de

AUTRONIC Steuer- und Regeltechnik GmbH

Siemensstr. 17

D-74343 Sachsenheim

Telefon: +49 (0) 71 47 / 24-200

Homepage: www.autronic.de // E-Mail:

vertrieb@autronic.de