



TRANSPORTATION

APPLICATION EXAMPLE

## Customized chassis solution for railway electrification control device

Applications for railway electrification are subject to stringent conditions. To deal with these, one of HEITEC's customers needed a customized system platform to accommodate the control mechanism for the central processing unit of a railway application.

For its solution, HEITEC designed a low-cost sheet metal casing that was painted to provide protection against harsh ambient conditions and humidity, and fitted with a thermoplastic front plate. The optimized design meant that other adaptations to the casing, such as openings in the cover plate for wiring connectors, were also achievable at a modest cost. As a result, the casing developed by HEITEC for its customer was ideally suited to the customer's requirements, combining maximum space availability with the most precise wire routing for the customer's application, and thus offering very good protection against harsh ambient conditions such as humidity, dust, high temperatures and vibrations. This was

vital for the project, since the system was intended for use in the Australian desert and would have to cope with extreme changes in ambient conditions.

Inside the casing, the familiar HeiPac Vario rack components were used. The HeiPac Vario series is the most variable 19-inch rack family offered by HEITEC: its many size variations and accessories make it ideally suited for even the most complex applications.

Implementing the project depended on a number of specific criteria. Swift handling was essential – it took just a few weeks from the initial sketch to building a prototype and through to the test stage. It also had to offer very good value for money, and the optimized design made that possible.

## Innovative Chassis Concept



Front view of the closed chassis with five PG screw connections on the cover plate and Macrolon plate for the front covering



Rear view of the closed chassis with an aluminum back plate

## Technical Summary

- › Customer-specific system platform
- › Customized painted casing with internal structure consisting of HeiPac Vario components for a 7-slot backplane
- › L x W x H: 325 mm x 42HP x 4U
- › LP card brackets = 160 x 2.00 mm for seven single euro-cards
- › Macrolon front plate
- › Protection class IP54
- › 5 wiring connectors

## Customer Benefits

- › Customized rack for a customer-specific system
- › Very high protection against harsh ambient conditions (IP54)
- › Fully prefabricated system platform for PCBs
- › Stable construction for rail-based vehicles ensures high resistance to shock and vibrations
- › Good tolerance for high temperatures makes it ideal for use in desert transportation
- › Very good protection against dust and moisture
- › Cost-optimized design
- › High service friendliness: rapid access and replacement

### HEITEC AG

Dr.-Otto-Leich-Str. 16  
90542 Eckental, Germany

Phone: +49 9126 2934 0

Fax: +49 9126 2934 199

e-mail: [electronics@heitec.de](mailto:electronics@heitec.de)

Web: [www.heitec-electronics.com](http://www.heitec-electronics.com)