HEITEC
engineering solutions

ELECTRONICS

ENERGY

APPLICATION EXAMPLE

Ruggedized chassis for offshore applications

The lightning indicator identifies and analyzes all important parameters of lightning stroke current in order to achieve a better basis of decision for maintenance operations. Especially offshore wind power plants require ruggedized and reliable systems due to challenging climatic conditions and local vibrations on high seas.

The exisiting customer solution showed quite a need for improvement regarding the chassis. Mainly the design had to be modified to a modular chassis concept in order to facilitate access to electronics in case of maintenance.

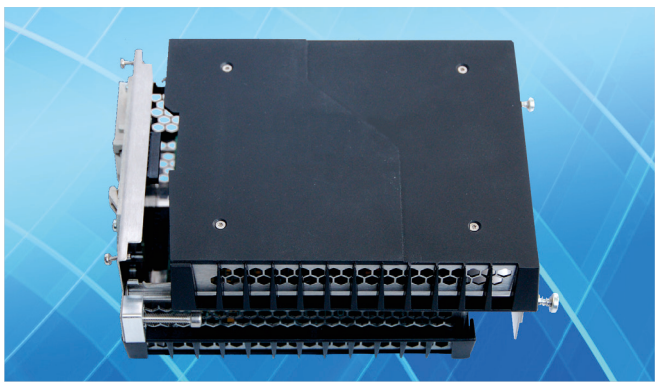
Another goal was to reduce mounting time to save costs. We changed the design from a chassis with over 30 screwed joints to a sophisticated, easy to assemble chassis with just two joints.

To cope with the climatic exposures on high seas, we choose a corrosion resistant, stainless steel chassis, which suits the requirements of shock and vibration resistance on site. An optimized, passive cooling concept with ventilation holes in a honeycomb structure provides reliable colling conditions of the electronics.

A prominent role played the EMC-protection, which was realized cost-efficiently by contact elements integrated in the chassis shells.

In order to make maintance easier, we decided for a shifting concept. The particular challenge was to apply contact between the connectors of the components during assembly or maintanance of a module as well as to avoid inacceptable loads on these connectors.

Innovative Chassis Concept



Both chassis sides are pushed together along a guideway and locked by two front screws.

Ventilation holes in honeycomb structure for optimum air ventilation with excellent EMC-capabilites.

Technical Summary

- Small customized chassis
- Suitable for DIN rails
- L x W x H: 170mm x 70mm x 80mm
- Chassis in a modular design for using two electronic plug-in components which can be connected to a backplane
- Ruggedized stainless steel chassis
- Highly effective EMC-protection

Customer Benefits

- Very easy to assemble
- High maintenance friendlyness by an innovative plug-in concept
- High shock- and vibration resistance
- Safe contacting of the connectors in case of shock- and vibration load and when changing the module
- Optimized passive cooling
- Cost effective chassis solution

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
Web: www.heitec-electronics.com