HEITEC
engineering solutions

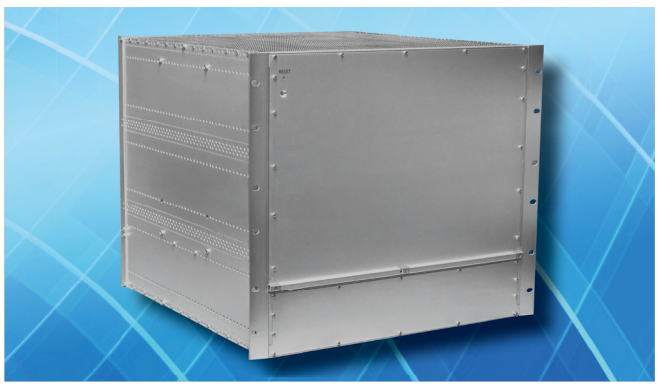
Standard and customer-supplied housing components optimally combined

HEITEC implemented an economical housing for a leading technology carrier in the field of industrial high-performance image processing. It's comprised primarily of standard components and, thanks to a few modifications, fully adapted to the customer's requirements.

In many areas of industrial production, a visual inspection during or between individual production steps is the only way to test quality and the preceding production step. Among other areas, the customer specializes in developing and manufacturing visual inspection systems. The systems are used, for example, in printing technology to ensure the necessary quality, and for inspecting security features and special multispectral printing. The faster and higher quality the image capture and processing, the shorter the cycle time at which the end customer can produce. Ever-more powerful camera and inspection systems are constantly being developed to meet these requirements. Naturally, these are associated with a demand for more and more powerful electronics for processing and real-time analysis of data. The only way that the customer can achieve the throughput rates and measurement accuracy required in inline quality inspection is with a high degree of optimization and a sophisticated hardware/software co-design.

With the HeiPac Vario family, the customer opted for a time-tested subrack family with long-term availability. A 9U enclosure subdivided into 7U and 2U was selected to conveniently combine the existing electronic components in a single subrack. The enclosure is equipped with hinged 7U front and rear panels for maintenance-friendly access. The 2U filler panels are partially furnished with cutouts to accommodate the customer's own connectors and interfaces and to implement cable feedthroughs. Thanks to the extreme diversity of the HeiPac Vario enclosure family, there was no problem integrating the customer's own fan unit. Aluminum guide rails positioned directly above the fan unit can accommodate up to eight 6U customer modules. These modules are cooled directly by the defined airflow. System ventilation is from bottom to top via the perforated top and bottom covers. The entire enclosure is EMC-sealed, which supports subsequent certification tests and greatly minimizes the risk of excessive emitted interference and sensitivity to system interference pulses. For years, the enclosure has been a solid base platform for the customer's test system, and it's been adapted multiple times to new conditions resulting from continuous development.

Innovative Chassis Solution



View of the closed front, divided into 2U and 7U - upper 7U cover is horizontally hinged

Rear view of the subrack with customized cut-outs in the lower 2U for individual applications

Technical Summary

- HeiPac Vario EMC subrack
- D x W x H: 465 mm x 84HP x 9U
- Integration of customer-specific components
- Active ventilation from bottom to top

Customer Benefits

- Custom-made housing for customer-specific system
- Simple integration of customer-specific supply
- Future-proof because it can always be adapted
- Long-term availability
- Maximum installation space for complex test electronics
- Cost-optimized one-step housing solution because milling and preassembly are performed by HEITEC

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