

CURRENT AND VOLTAGE SENSOR

Measurement system with CAN

The IVT-S by Isabellenhuetten (Germany) was designed for dielectric strength in traction batteries and stationary energy storage devices. Data is transmitted via CAN.

With its developed, shunt-based IVT-S measurement technology, Isabellenhuetten is responding to the market, which now favors specified functions in current measurement systems. The main focus is on achieving dielectric strength that is as high as possible in line with the intended application. High dielectric strength must be guaranteed in battery-powered vehicles, for example.

A variety of components are used in the IVT-S. A 16-bit A/D converter guarantees the precise transformation of the voltage drop into digital signals. Data is transmitted through a CAN interface. Through this module, the internally developed current counting firmware is provided with information on charge and discharge volumes. In addition the company provides a CAN description file in *dbc format that helps IVT-S users to integrate the application.

The measurement system has a maximum dielectric strength of 1 kV. Its functional range includes the measurement of current and voltage. The company thus meets today's market requirements of traction battery systems or stationary, electrical energy storage devices. These lithium-ion batteries generate energy density at which higher voltages can be applied with smaller currents. This is why the sensor's dielectric strength also has to be correspondingly high. For fast-charging battery systems, this performance feature is important.



The IVT-S measures current and voltage (Photo: Isabellenhuetten)

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