ISABELLENHÜTTE

PROBLEMS WE SOLVE

Enhancing precision in current measurement:
Leveraging press-fit pins in shunt-based technology

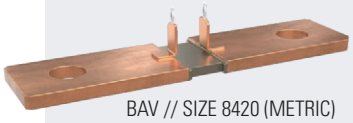
Shunt-based current measurement: improving accuracy through optimal sensing position

CHALLENGE

High-current conditions cause the shunts to self-heat as electrical energy is converted into thermal energy. This significant temperature rise, if not properly managed, poses a risk to critical subcomponents, such as connectors, electronic parts, and the PCB material, especially when they are situated close to the shunt. Additionally, TCR variations and imprecise connections can further compromise the system's reliability under these demanding conditions.

SOLUTION

Isabellenhütte's technology uses press-fit pins on bus bar shunts to tackle these challenges. These pins provide secure, predefined connections that eliminate TCR variations and protect subcomponents creating a standoff between the PCB and the shunt. Installation of this BAV series is simplified — simple press the pins, which are located on the shunt, into through holes on the PCB. Instant cold welding forms a highly stable connection without any additional process step. This proven method streamlines production without the need for soldering.



BAV // SIZE 8420 (METRIC)

PRODUCT PAGE →

APPLICATION

EV- and PHEV-applications like battery management systems, power distribution units, battery disconnect units, battery junction boxes, industrial applications like stationary or mobile energy storage systems and phase current measurement.

(508) 673 2900 / Isabellenhuetteusa.com / 1199 G.A.R. Highway, Swansea, MA 02777 USA