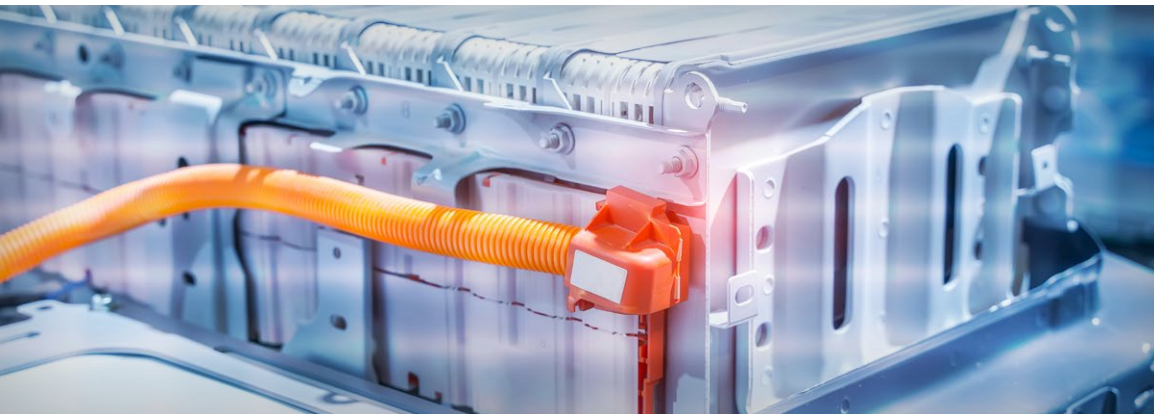
CUSTOMER STORIES

DESIGNING SAFER FUEL CELLS DEMANDS RELIABLE PRECISE, AND FAST GROUND-FAULT ISOLATION



Isabellenhütte's IVT 3 Pro shunt-based sensing and control gives innovators important new capabilities for HFCVs and more

CHALLENGE

Improve the safety characteristics of fuel cell design to address the dangers of shock and flammability. Bipolar plate designs are connected in series — parallel with liquid coolant. The existence of wet contact between energized surfaces and coolant provides a ready leakage path for fuel systems—especially as the coolant becomes contaminated over time.

SOLUTION

An integrated sensor (IVT-3.0 Pro) that monitors ground faults due to increasing coolant conductivity and serves as a circuit breaker in hazardous conditions.

On detecting a sudden change, electrical contactors can be actuated to break the electrical circuit—disconnecting the high voltage terminals of the fuel cell stack from the electrical system, thus preventing dangerous situations.

APPLICATION

Fuel cells, HFCVs