



ISABELLENHÜTTE

Innovation by Tradition

Innovation in Motion

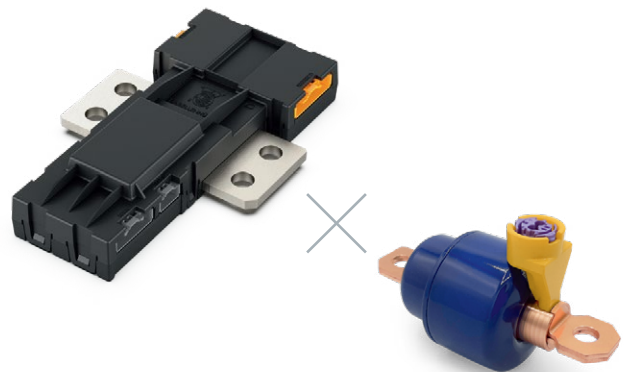


IVT 3 PRO and Miba POWERfuse®

A POWERFUL COMBINATION

INTRODUCTION

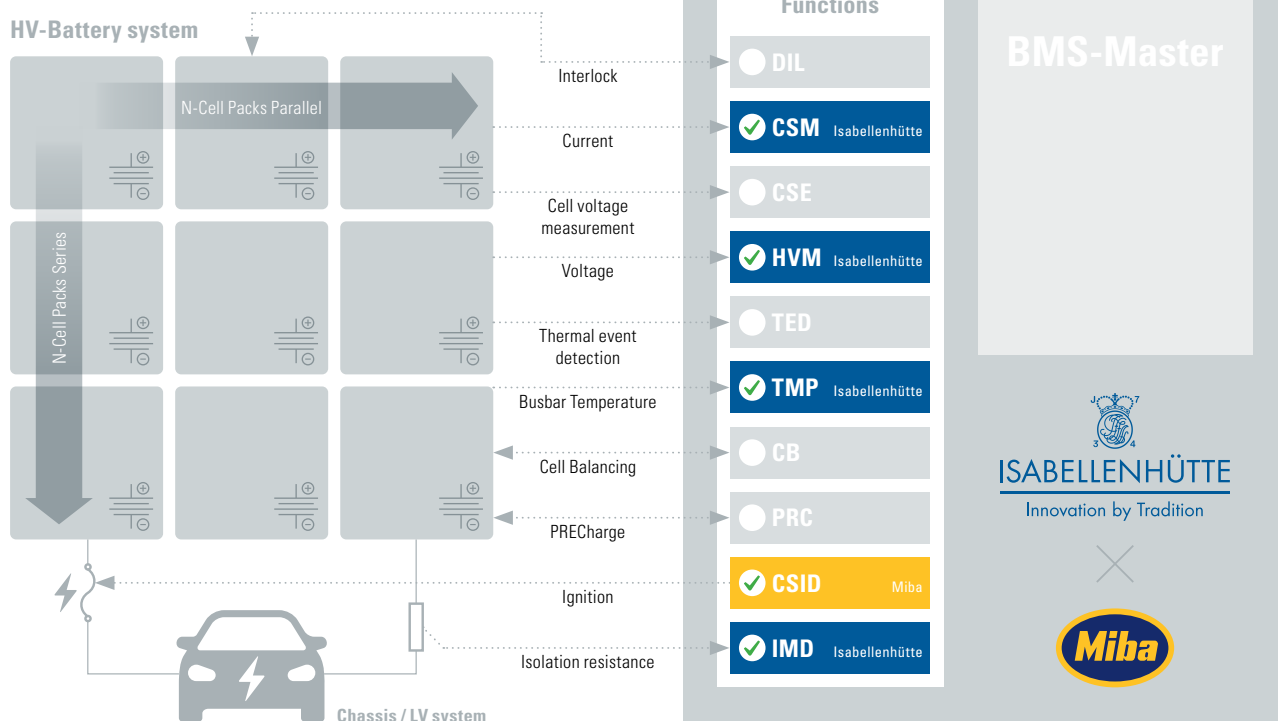
The Miba POWERfuse® with IVT 3 PRO is a compact high precision current measurement device, which is built on a platform concept where functional components can be added to adapt to many different use cases. The IVT 3 PRO supports insulation resistance monitoring and 3 or 6 voltage measurement channels. The integrated pyro element can disconnect the HV battery from the car in case of a hazardous or crash event. The accurate measurement of **0.4 %** by the IVT 3 PRO together with a **< 100 µs** overcurrent detection will lead to safe, accurate and fast actuation of **< 2 ms** by the IVT 3 PRO and Miba POWERfuse®.



PRELIMINARY SPECIFICATION

Features	Value
Current measurement accuracy	$\pm (0.4\% + 100 \text{ mA})$
Overcurrent detection time	$< 100 \mu\text{s}$
Measurement range	$\pm 4 \text{ kA}$
Customizable separation threshold range	$\pm 4 \text{ kA}$
Separation capacity	800 VDC / 30 kA / 7 µs
Separation time	$< 2 \text{ ms}$
Communication protocol	CAN 2.0B
ASIL rating	C
Crash Input	AK-LV 16 & USCAR-28
Total resistance	20 µΩ

BMS-Application



LEGEND

BMC	Battery Management Controller	CB	Cell Balancing
BMS	Battery Management System	PRC	Precharging
CSM	Current Sense Module	DIL	Decentral Interlock (Connection Check)
HVM	High Voltage Monitoring	TED	Thermal Event Detection
CSE	Cell Supervising Electronics	TMP	Busbar Temperature
CSID	Current Triggered Short Circuit Interruption Device	IMD	Isolation Measurement Device

CONTACT INFORMATION



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