

Fast Facts

Stack Cooling Pump 0.7 kW / 1.4 kW

Hydrogen Fuel Cell Cooling Pump

Power electronics for a hydrogen fuel cell stack cooling pump directly, mounted to the backside of the pump motor.

Features:

- Supply voltage: 200-500 VDC / up to 800 V possible
- Power: 0.7 kW, 1.4 kW / up to 3 kW possible
- Sensor-less FOC control down to 800 rpm
- ASIL-Rating: ASIL B
- Fault handling and protection
- CAN / LIN / PWM communication

Key technologies:

- IGBT discrete SMD switches
- Standard FR4 – Fully SMD
- In-house sensor-less FOC Software performed on a small ARM M4F MCU with In-house RTOS
- Single PCB-Shunt current measurement (no physical component)
- Ceramic Substrate Al₂O₃ – for higher thermal performance

