

TRACTION INVERTER & E-MOTOR

Melexis integrated circuits (ICs) play a crucial role in electric vehicle (EV) traction inverters, which are responsible for converting the DC power from the vehicle's battery into AC power to drive the electric motor. These essential ICs contribute to efficiency, reliability, safety, and cost-effectiveness, ultimately playing a vital role in the overall performance and viability of electric vehicles.



A CURRENT SENSORS



Hall-based current sensor ICs designed for your application

✓ Relevant ICs

- IMC-Hall Shield current sensors (MLX91216/MLX91218) >50A
- Primary integrated current sensors (MLX91220/MLX91221) <50A
- DC current sensing, Conventional or Shunt (MLX91230/MLX91231)

✓ Key benefits

- High accuracy
- Diagnostics, including OCD or dual OCD
- Surface mount solutions for easier assembly
- Fully integrated and isolated current sensors w/ factory calibration

Pos POSITION SENSORS



Magnetic and Inductive position sensor ICs experience

✓ Relevant ICs

- Position sensing (MLX9037x/MLX9042x)
- Resolver (MLX90380/MLX90381/MLX90510)

✓ Key benefits

- Integrated sense & drive solutions
- IC positioning flexibility
- PCB & PCB-less solutions with design support
- ISO 26262

T TEMPERATURE SENSORS



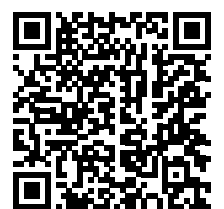
Unique automotive-qualified infrared temperature sensor IC

✓ Relevant ICs

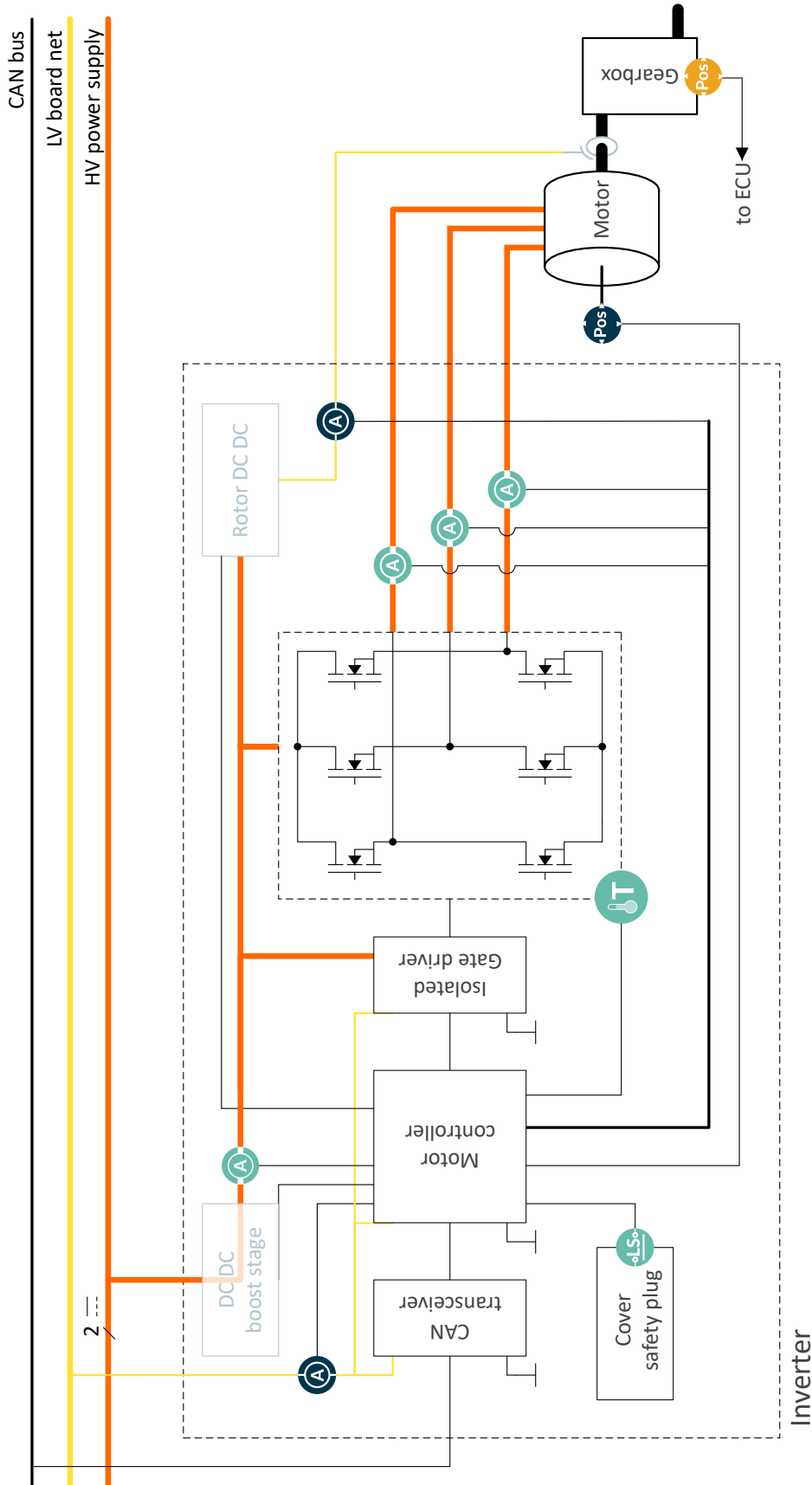
- Infrared single point (MLX90614)
- Infrared array (MLX90640)

✓ Key benefits

- Contactless with immediate response
- Easier assembly process at application level since no thermal contact is required between sensor and object under test
- AEC-Q100 compliant



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CURRENT SENSOR ICs



POSITION SENSOR ICs



TEMPERATURE SENSOR ICs

