

2-Wheelers

Melexis, a leading semiconductor manufacturer, provides cutting-edge technologies needed for the future of e-mobility. Advanced sensors and drivers are essential for optimizing battery management, enhancing safety, and improving overall performance in electric 2 and 3-wheelers.



e-motorcycle
> 10 kW

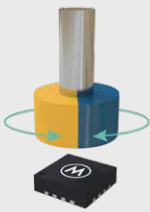
e-scooter
0.75 - 10 kW

e-kickstep
0.5 - 3 kW

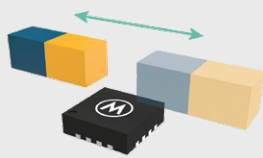
e-bike
0.25 - 0.75 kW

Position Sensor ICs

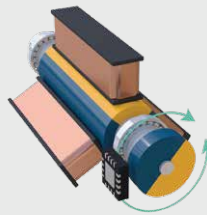
Enhancing performance, efficiency, and safety with accurate and reliable position sensing solutions.



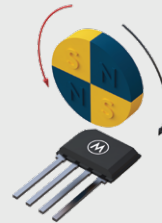
Rotary



Linear



Motor position



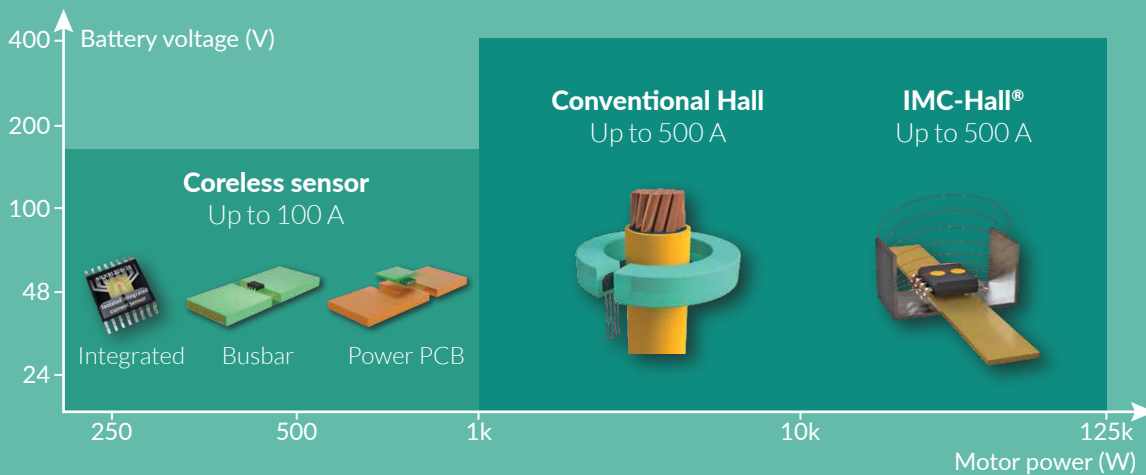
Cadence

Technology choice

- ✓ IC positioning flexibility
- ✓ Application support
- ✓ Large portfolio of position sensors, latch & switches

Current Sensor ICs

Ensure precise current measurement for efficient power management.



Technology choice

- ✓ High accuracy
- ✓ Factory calibrated
- ✓ Dual over-current detection

Smart Tire Sensor ICs

Unlock a new level of safety and performance for your 2-wheelers with a TMS integrating a XZ-axis accelerometer, and providing pressure, temperature, and voltage readings.

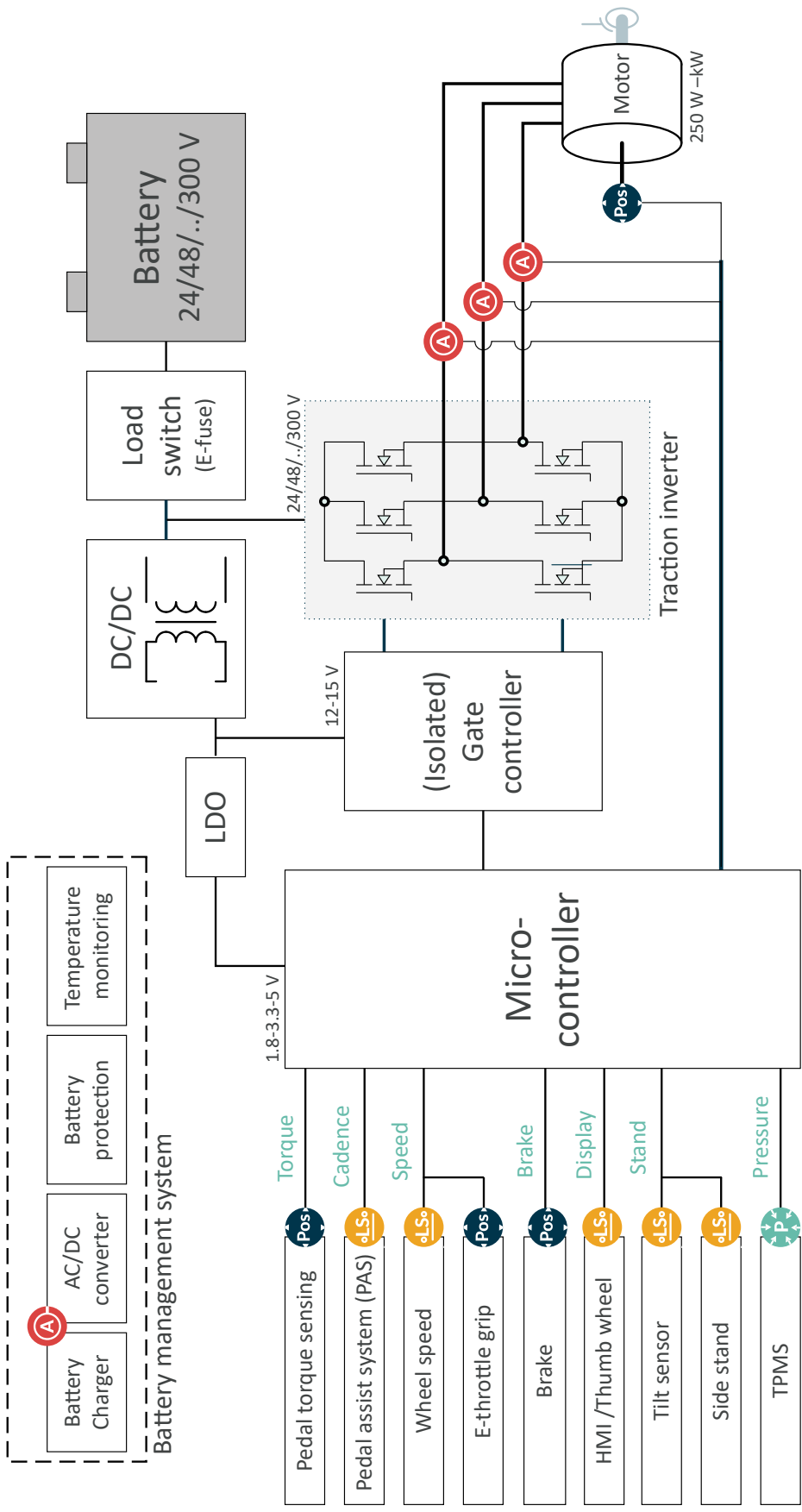
Technology choice

- ✓ XZ-axis accelerometer
- ✓ Tiny DFN package 4x5mm²
- ✓ Ultra low-power
- ✓ Data logging & live reaction



www.melexis.com/2-wheelers





PRESSURE SENSOR

MLX91805 (TMS)



LATCH & SWITCH

MLX92253 (dual latch)
MLX92221/41 (2-wire)



POSITION SENSOR

MLX90381 (resolver)
MLX90393/94 (magnetometer)
MLX90390 (linear)



CURRENT SENSOR

MLX91219 (conventional)
MLX91218 (IMC-Hall®)
MLX91220 (integrated)
MLX91230 (smart IVT)
MLX91231 (shunt interface)