

MLX91211

MEDIUM-SPEED CONVENTIONAL HALL CURRENT SENSOR



The snout of the platypus is a sensory organ with electroreceptors in the skin of the bill, which allow him to detect the electrical field that gets generated when his prey contracts its muscles. With his 40,000 sensitive electronic sensors, this unique semi-aquatic egg-laying mammal represents our current sensors.

FILLING THE GAP BETWEEN HIGH-ACCURACY PROGRAMMABLE DEVICES AND LOW-ACCURACY FACTORY-TRIMMED LINEAR HALL SENSORS.

MLX91211

The MLX91211 is a second-generation medium-speed current sensor that senses the magnetic field generated by the current flowing through a conductor, be it a cable, a bus bar or a PCB trace.

The sensor is optimized for cost-sensitive applications, and comes in 2 variants:

- the ABT version with multi-temperature trimming of the sensitivity, and high accuracy
- the ABA version with default trimming, and standard accuracy

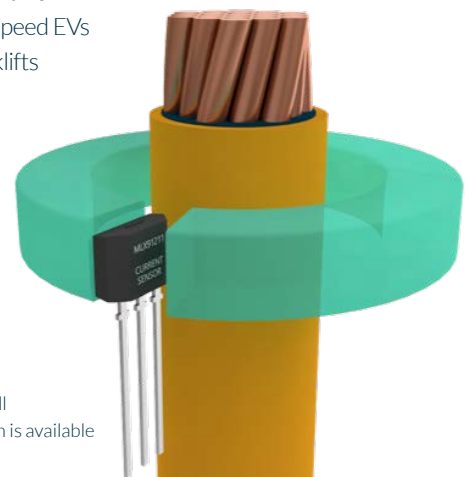
KEY FEATURES

Linear Hall sensor optimized for AC and DC current sensing applications

- ✓ Factory trimmed magnetic sensitivity and offset
- ✓ 5 V and 3.3 V supply
- ✓ Medium speed sensing
 - DC to 40 kHz bandwidth
 - 10 μ s response time
- ✓ Fast startup time enabling power gating
- ✓ Miniature packages RoHS compliant & green
 - TSOT-3L (SE) surface mount
 - TO92-3L (UA) through-hole mount, with trim & form options
- ✓ AEC-Q100 automotive qualified

KEY APPLICATIONS

- ✓ Starter-generators
 - 12 V starter-generators
 - Cost-sensitive 48 V inverters (BSG/ISG)
- ✓ Traction inverters
 - E-scooters
 - Low-speed EVs
 - E-forklifts



Conventional Hall
Note: SMT option is available

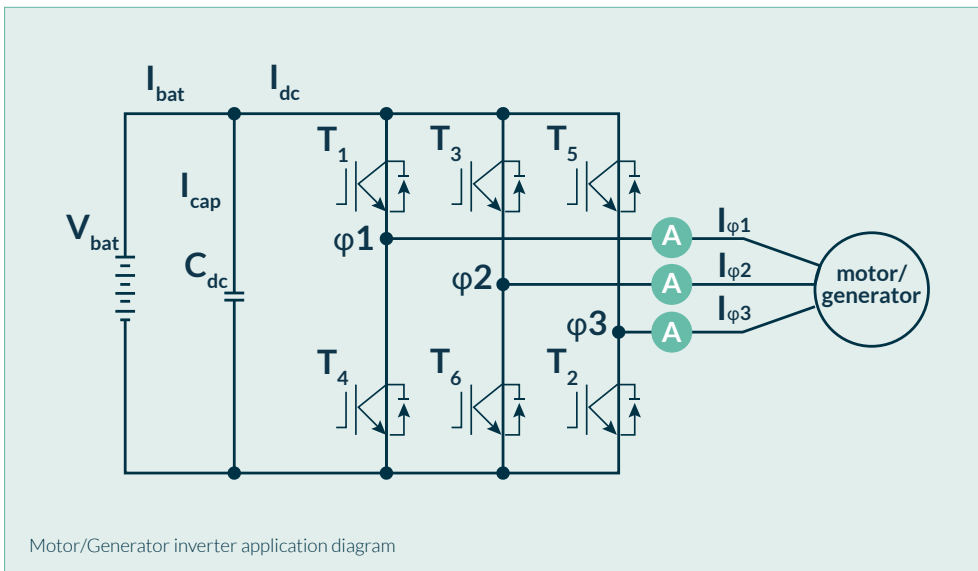
APPLICATION VISUALS

STARTER-GENERATORS



Belt Starter Generator (BSG)

TRACTION INVERTERS



Motor/Generator inverter application diagram



E-scooter



Golfcart



Forklift

The above information is "as is" and believed to be correct and accurate. Melexis disclaims any and all liability in connection with or arising out of the furnishing, application or use of the information or products; any and all liability, including without limitation, special, consequential or incidental damages; and any and all warranties, express, statutory, implied, or by description, including warranties of fitness for particular purpose, non-infringement and merchantability. Melexis reserves the right to change it at any time and without notice. Users should obtain the latest version of the information to verify it is current. Users must further determine the suitability of a product for its application, including the level of reliability required and determine whether it is fit for a particular purpose. Export control regulations may apply and export might require a prior authorization from competent authorities. Melexis' products are intended for use in normal commercial applications. Unless otherwise agreed upon in writing, the products are not designed, authorized or warranted to be suitable in applications requiring extended temperature range and/or unusual environmental requirements. High reliability applications, such as medical life-support or life-sustaining equipment are specifically not recommended by Melexis. Melexis' products are sold under the Melexis' Terms of Sale, which can be found at <https://www.melexis.com/en/legal/terms-and-conditions>.