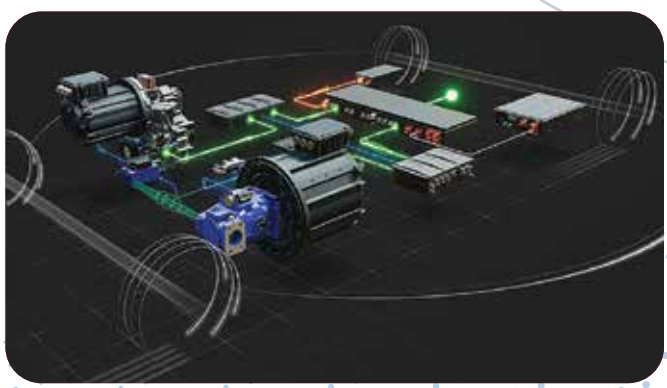
Evolution MOTION SOLUTIONS

rexroth
A Bosch Company

High-Voltage Electrification with Mobile Electric Drives

To meet the demands for increased productivity and performance in the mobile/off-highway industry while reducing operational costs, enhancing efficiency, and lowering exhaust and noise emissions, Evolution Motion Solutions combines Bosch Rexroth's 700 V Mobile Electric Drives portfolio with our application engineering and system integration expertise to deliver comprehensive mobile electrification solutions.

Bosch Rexroth's 700 V mobile electrification portfolio is designed for heavier-duty mobile/off-highway applications but is especially suited for intermittent-duty applications such as stump grinders, drill rigs, and forklifts. Whether the application requires traction, implement hydraulics, or hybrid or fully electric operation, we offer highly efficient, low-noise, and powerful electric motors, generators, inverters, and hydraulics combined with modular software applications for high-voltage mobile applications.



Benefits of Mobile Electrification Solutions

- **Core components** needed for high-voltage mobile electrification
- **High efficiency** from electric motors, gear units, and hydraulic pumps for traction and implement functions
- **Specific design** for the mobile/off-highway market, including functional safety solutions
- **Reduced emissions** from sustainable, reduced-noise solutions
- **Scalability** with four sizes of the 700 V motor-generators with different lengths and winding configurations
- **BODAS software** for electronic control that perfectly matches the Mobile Electric Drives portfolio

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evolutionmotion.com/bosch-rexroth-mobile-electric-drives

Application Software and Safety

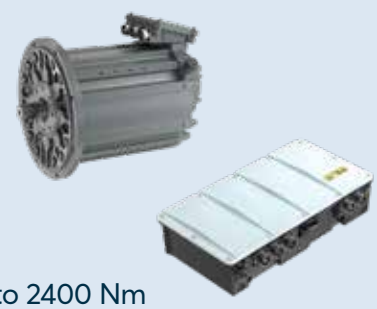
- Modular software for traction and implement control tailored for mobile machines across various electric topologies, featuring power management and application-specific functions
- Integrated functional safety in accordance with ISO13849
- Safety levels up to Category 3, PL d, and AgPL

Application Engineering

- Decades of extensive experience in the mobile market and electrification of mobile/off-highway applications
- Evolution team designs machinery, identifies the best electrification solution, and brings it to life
- Comprehensive portfolio of functionalities that help to develop the desired vehicle architectures and performance

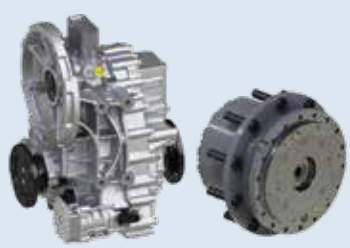
Mobile Electrification Technologies and Components

Motors, Generators, and Inverters



- Permanent magnet synchronous motors with reluctance for unparalleled power density and efficiency
- Modular and scalable variants
- Broad performance power range from 8 to 200 kW
- Nominal torques of up to 1050 Nm and a maximum torque of up to 2400 Nm
- Flexible components that tailor to your traction and implement function needs

Gear Units and Pumps



- Innovative single- and multi-speed central drive gear units for compact and robust drivetrain solutions
- Advanced electrohydraulic functionalities to boost efficiency and implement control
- 1 and 2-speed gear drives for wheel and axle-driven mobile solutions
- Compact and robust components designed for limited installation space

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