

PRESS RELEASE

MH23006c

Bosch Rexroth offers off-highway electrification with eLION in North America

Comprehensive portfolio for efficient electrification of driving and working functions including market-specific accessories.

PI 005_23

For Immediate Use

- ▶ Scalable portfolio for wide range of mobile applications
- ▶ Single-phase onboard charger for straightforward connection to North American charging network



Bosch Rexroth supports comprehensive electrification of mobile working machines in North America: The portfolio of the modular and scalable eLION platform encompasses everything from motors, inverters and gearboxes to software, accessories, and the necessary hydraulics. (Image source: Bosch Rexroth AG).

With a single-phase onboard charger, Bosch Rexroth has made its eLION platform fully compatible with the North American charging infrastructure. The broad range of motors, inverters, gearboxes, and software also includes a highly effective DC/DC converter.

Developed specifically for global off-highway applications, Rexroth's eLION platform boasts a modular and scalable design. The nominal power range of the motors extends from 20 to 200 kW (with peak power of up to 400 kW) and covers the complete spectrum from compact to heavy-duty working machines. The eLION inverters for up to 300 A continuous current offer high overload

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capacity while also supporting DC link voltages of 270 to 850 V along with rapid CAN J1939 communication (CAN 2.0). Fully integrated functional safety according to ISO 13849 ensures maximum time savings in engineering. With their power density, the eLION gearboxes support a wide range of compact hub and central drives. In addition, Bosch Rexroth provides BODAS software modules along with suitable hydraulic components, such as axial piston pumps, for the complete eLION platform.

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Market-specific system components accelerate time to market

To ensure that off-highway manufacturers can quickly find standardized solutions for different drive types (e.g. fully electric, hybrid or diesel-electric), the eLION portfolio includes essential system components such as DC/DC converters, onboard chargers and high-voltage cables. Additions to the range include two system components developed in collaboration with BRUSA HyPower:

The single-phase eLION onboard charger for 19 kW supply systems boasts a compact design for flexible integration in various vehicle types and achieves a maximum charging current of 36 A with 95 percent efficiency.

With a voltage range of 350 to 890 V, the eLION DC/DC converter supports a wide range of control functions, including fuel cell applications. Its power density of 1.25 kW/l allows the component to achieve an efficiency level of more than 95 percent.

About Bosch Rexroth:

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 33,800 associates generated sales revenue of 7.6 billion euros in 2023.

To learn more, please visit www.boschrexroth.com.

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The Bosch Group is a leading global supplier of technology and services. It employs roughly 417,900 associates worldwide (as of December 31, 2024). According to preliminary figures, the company generated sales of 90.5 billion euros in 2024. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 86,900 associates in research and development, of which nearly 48,000 are software engineers.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com.

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