Press release
Bosch Engineering GmbH

March 19, 2026
PI12060 BEG MBC/ah

LogiMAT 2026: 800-volt electric drive from Bosch for intralogistics with high power requirements

Electrification enables zero-emission operations in logistics centers, ports and industrial facilities

- Electric drive system with high power density and optimum efficiency in the high-voltage range
- Compact dimensions enable conversion of existing device platforms to electric drives
- High robustness, reliability, and durability thanks to transfer of technology from automotive volume production
- High flexibility thanks to combination with tailored transmission solutions from Bosch Rexroth

Abstatt – High efficiency and zero-emission operation in logistic centers, ports and industrial facilities: powertrain electrification offers significant benefits, particularly for local intralogistics. Intralogistics vehicles are becoming ever more powerful and, with their increasing load capacities, are entering into areas of application that were previously reserved for devices with internal-combustion engines. At LogiMAT, Bosch Engineering is presenting a high-performance electric drive for battery voltages of up to 800 volts, tailored to the specific requirements of heavy-duty intralogistics machines. As a result, even heavy-duty forklifts, truck tractor units, or seaport transporters in terminals and distribution centers can now be equipped with electric drives. The compact dimensions enable straightforward integration into tight installation spaces, meaning that existing device platforms can also benefit from electric propulsion. "Our powerful new electrification solution combines high power density, compact dimensions, and optimum efficiency. Its impressive flexibility makes it the perfect choice for the electrification of all types of intralogistics machines in heavy-duty operation," explains Philip Kurek, who is responsible for off-highway and maritime solutions at Bosch Engineering.

The 800-volt drive system consists of the Bosch electric motor SMG230 and a highly efficient inverter equipped with silicon carbide power modules. The motor is designed for system voltages of 400 to 850 volts. In an ideal voltage and temperature range, it

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offers a continuous power output of 188 kilowatts and around 250 newton meters of torque. Up to 550 newton meters of peak torque can be delivered on a short-term basis. Thanks to the 800-volt technology, the power density has also been increased significantly. The new motor delivers up to 80 kilowatts more power than a comparable 400-volt machine with identical weight or, with the same level of performance, boasts more compact dimensions and a much lower weight. Engineered to meet the specific requirements of the 800-volt system, the silicon carbide semiconductors in the power modules enable faster switching operations and steeper switching slopes, meaning that significantly less energy is lost in the form of heat. The inverters of the drive system with silicon carbide semiconductors thus offer impressive efficiency of more than 99 percent. The safety and diagnostic concept is based on established standards from the automotive domain and has been adapted to the specific requirements of intralogistics. Bosch Engineering supports its customers in integrating the drive system into their logistics machines as well as with the actual application of the system.

The electrification solution from Bosch Engineering offers great flexibility in combination with tailored transmission solutions from Bosch Rexroth, such as the new eGFV9120 coaxial gearbox.
In addition, the Collision avoidance system CAS, based on Bosch Rexroth's open BODAS ecosystem, can intervene directly in the 800-volt drive system besides other types of drive systems. Using a combination of radar, ultrasonic sensors, and smart cameras from Bosch Engineering, the system enables effective collision protection through precise object and person detection. In collaboration with Bosch Rexroth, Bosch Engineering also supports its customers with application development into their machines.

The SMG230 equipped with Bosch Rexroth's eGFV9120 coaxial gearbox will be presented for the first time as an intralogistics solution at **LogiMAT 2026 in hall 8, booth B41**.

Press photos and info charts are available on the Bosch Media Service at www.bosch-press.com.

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About Bosch Engineering GmbH
Bosch Engineering GmbH is a wholly owned subsidiary of Robert Bosch GmbH and is head-quartered in Abstatt, Germany. As a systems development partner to the automotive industry since 1999, the company offers development services for powertrains, safety and convenience systems, and electrical and electronic systems – from the original concept to series production. Specialized in electronics and software, it draws on Bosch's proven large-scale series production technology to develop tailored solutions for a wide variety of applications in passenger cars, commercial vehicles, off-highway and recreational vehicles, and in rail applications, ships, and industry. Bosch Engineering GmbH also coordinates all the Bosch Group's motorsports activities.
Additional information can be accessed at www.bosch-engineering.com.

Mobility is the largest Bosch Group business sector. According to preliminary figures, it generated sales of 56 billion euros in 2025, and thus contributed around 62 percent of total sales. This makes the Bosch Group one of the leading mobility suppliers. Bosch Mobility pursues a vision of mobility that is safe, sustainable, and exciting. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are electrification, software and services, semiconductors and sensors, vehicle computers, advanced driver assistance systems, systems for vehicle dynamics control, repair-shop concepts, as well as technology and services for the automotive aftermarket and fleets.
Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 412,000 associates worldwide (as of December 31, 2025). According to preliminary figures, the company generated sales of 91 billion euros in 2025. 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 490 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 82,000 associates in research and development.

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