

### **AGRITECHNICA 2023: Bosch presents electrification solutions for agricultural machinery**

November 8, 2023  
PI11744 BEG MBC/Cd

- ▶ Agricultural machinery energized: 400 V electrification solutions for small and medium-sized agricultural machines
- ▶ Electric drive control unit for traction control, designed specifically for forestry and agricultural machinery

Abstatt, Holzkirchen (Germany) – The electrification of agricultural machinery is still in its infancy, although it already does offer some advantages, especially for small to medium-sized agricultural machines. For example, farmers reap the benefits of high efficiency, low maintenance due to using fewer operating materials and filters, and, in particular, the ability to use their own electricity from biogas, combined heat and power plants, or photovoltaic systems.

Bosch Engineering offers agricultural machinery manufacturers compact, high-performance and robust components that are ideal for electrifying small to medium-sized agricultural machines, such as yard loaders, vineyard tractors or farm tractors. These components include an electric motor with an optional gearbox, an inverter with an integrated DC/DC converter, and a control unit. The motors are available in two power levels of 90 and 140 kW. The design of the 400V permanent magnet synchronous motor is characterized by its high power density and excellent efficiency. The inverter is equipped with a high-performance DC/DC converter to supply the 12 V electrical system. The gearbox boasts an impressively high efficiency and offers very low-noise and low-maintenance operation.

To control the traction drive, Bosch Engineering offers a dedicated electric drive control unit (EDCU). It is designed specifically for use in forestry and agricultural machinery and, besides controlling torque and speed, also handles the coordination of the energy, charging and operation status in the entire vehicle. Flexible communication interfaces make it possible to use off-the-shelf components as the basis for putting together and optimizing comprehensive drive systems. The modular hardware and software of the EDCU give manufacturers of

mobile work machines a cost-efficient and fast control solution for their applications.

**Further information:**

<https://www.bosch-mobility.com/en/solutions/control-units/electric-drive-control-unit/>

<https://www.bosch-engineering.com/branches/ohw-overview.html>

**Press photos:** #c62c7b71, #d043d4de, #d072bca4

**Contact person for press inquiries:**

Cornelia Dürr

phone: +49 7062 911-1986

email: [cornelia.duerr@de.bosch.com](mailto:cornelia.duerr@de.bosch.com)

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