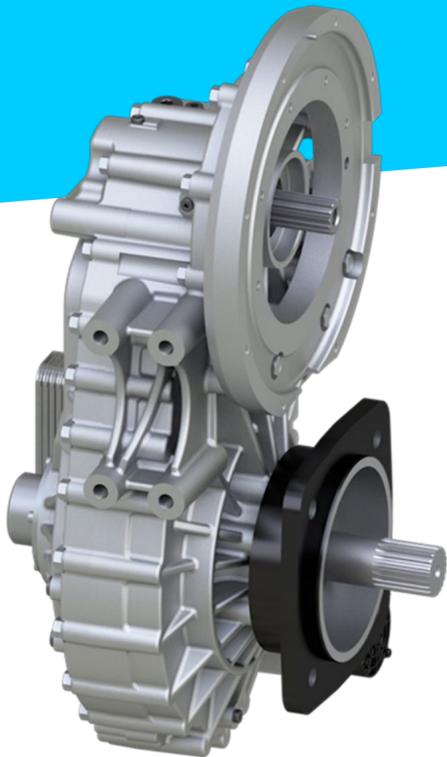


ROTATRAC

eGFZ9115 series 10

1-speed spur gear drive



Steady increases in productivity and performance, continuous reduction of operating costs, progressive increases in efficiency and the reduction of exhaust and noise emissions are among the most important customer requirements for mobile machinery. Electric drives are an important part in achieving these diverse goals. Gearbox technology is a central component of the electric drive train. Bosch Rexroth has developed the highly efficient gearbox eGFZ9115 based on many years of experience and comprehensive know-how. This is an ideal solution for both single- and dual-axis drive concepts.

CUSTOMER BENEFITS

- Drive with high power density for off-highway vehicles
- Plug and drive system
- Efficient monitoring
- High flexibility with e-motor connection
- Compact design for limited installation space
- Versatile output solutions

FUNCTION AND BENEFITS

Drive with high power density for off-highway vehicles

Developed specifically for high-speed electric motors, ROTATRAC eGFZ9115 by Bosch Rexroth combines high power density with an efficiency of up to 98 % while optimizing noise. This enables the integration of a zero-emission drive into existing installation space requirements for off-highway applications like sweepers, multi-function vehicles, airport vehicles or other municipal vehicles. Compared to electric direct drives without gearboxes, two axles can also be driven with only one electric motor without having to accept the disadvantages in terms of efficiency and acoustics (see Figure “Output solutions”).

Plug and drive system

Due to the components already in the gearbox, like heat exchanger and oil pump, eGFZ9115 can be integrated easily into the existing cooling circuit of the electric drives (like the inverter and e-motor). A separate cooling circuit is thus not required.

APPLICATIONS



TECHNICAL DATA

1-speed spur drive ROTATRAC eGFZ9115 series 10

Gear ratio:	2.5....3.78
Max. output torque:	2000 Nm
Max. input speed:	16000 min ⁻¹
For continuous performance	100 kW
Ambient temperature:	-20 °C to +70 °C
Cooling:	Water glycol mixture / optional oil
Oil pump:	Integrated
Heat exchanger:	Integrated
Data sheet:	in preparation

Efficient monitoring

The integrated sensor technology in the standard version for e.g. temperature as well as optional connections for speed measurement in combination with CAN bus communication based on common standards ensures the required operational reliability.

High flexibility with e-motor connection

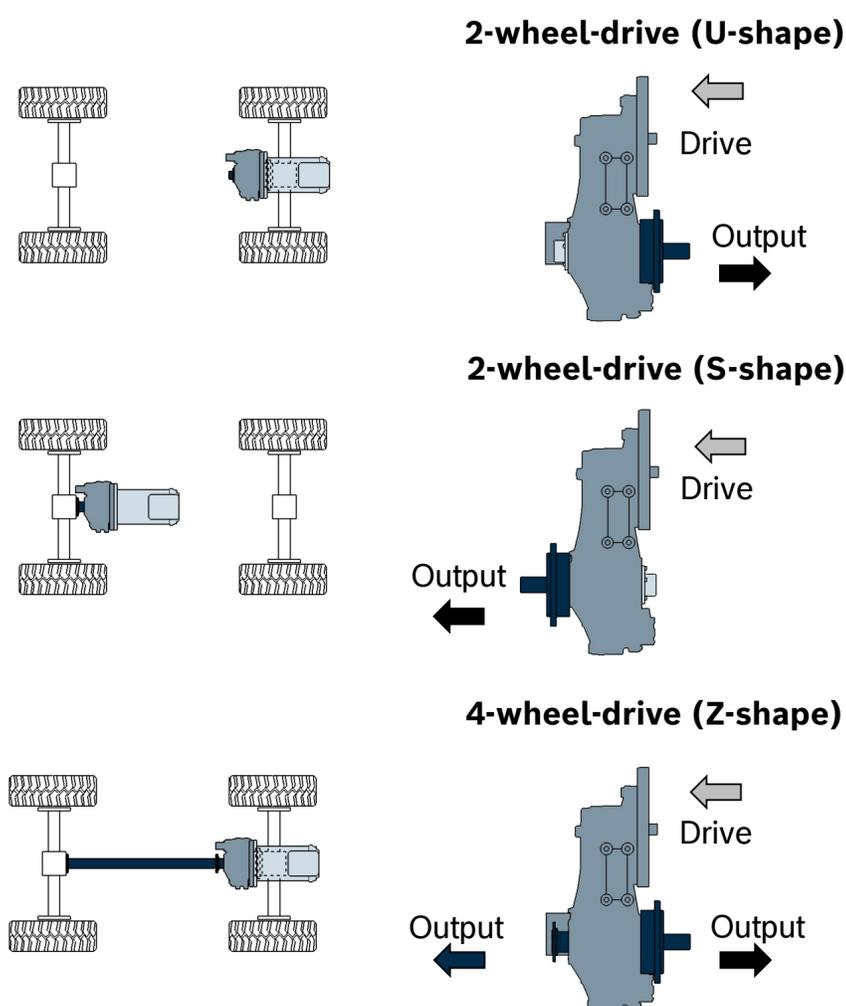
ROTATRAC eGFZ9115 is optimized for mounting various electric motors, especially high-speed, high-efficiency, compact permanently excited synchronous motors like the Rexroth EMS1H and Bosch SMG, but also motors with similar power from other manufacturers.

Compact design for limited installation space

Different strategies for power supply, battery storage requirements and additional add-on elements, e.g. fresh water tanks in municipal vehicles, reduce the available installation space of the drive train. ROTATRAC eGFZ9115 is distinguished by optimized axle distance of the gearbox in combination with a compact and powerful Bosch SMG or Bosch Rexroth EMS motor. This enables a drive solution that is installed close to the axle directly above the differential and directly drives into the axle, differential or axle brake.

Versatile output solutions

Various gearbox versions are available for the ROTATRAC eGFZ9115 of Bosch Rexroth. Depending on the requirements, the output in the drive train is available as a U-, S- or Z-shape.



Output Solutions