

Innovative and Compact: Wheel Hub Gear Motor

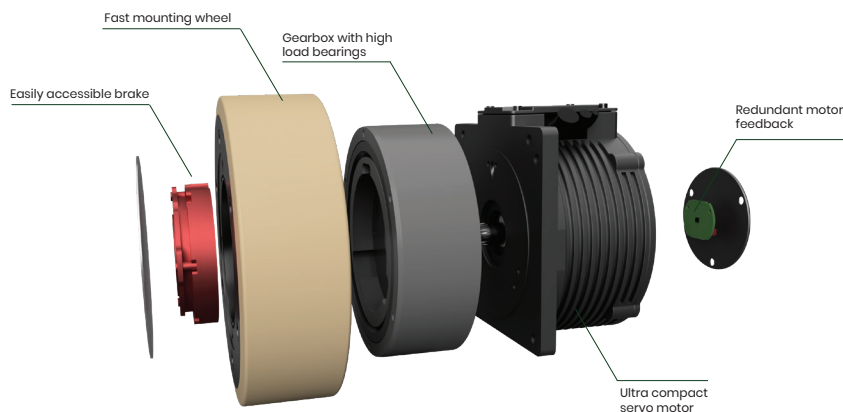
The Wheel Hub Gear Motor is a cutting-edge solution that seamlessly integrates gearbox, brake, and motor into the wheel hub. This innovative design offers a compact, high-performance, and cost-effective traction drive, ideal for AGV/AMR and Shuttle Systems.

Enhanced Bearing Design for Superior Performance

An optimized bearing arrangement allows the motor to handle higher radial loads, improving vehicle floor contact. This results in enhanced performance, shorter braking distances, and faster speeds.

Compact Design for Maximum Space Efficiency

Having the gearbox and brake integrated directly into the wheel rim, maximizes radial space utilization while minimizing overall length. This approach allows more flexible vehicle designs, conserving valuable space.

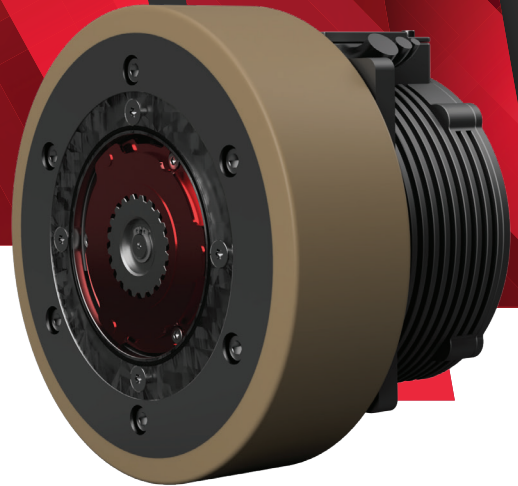


Quick and Easy Brake Replacement

The brake's accessible position enables quick replacement without needing to remove the motor or gearbox, reducing downtime and boosting vehicle availability.

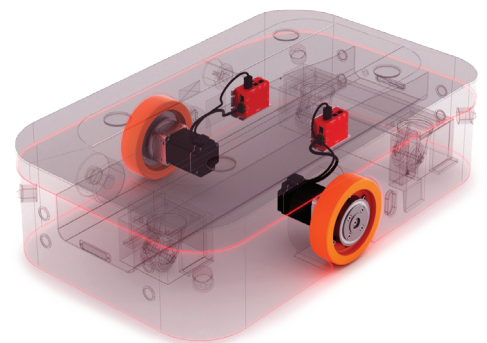
Cost-Effective, High-Performance Traction Drive

Optimized for AGV/AMR and Shuttle Systems' traction drives, each component is designed to offer a perfect balance of performance and cost, delivering a tailored, efficient solution.

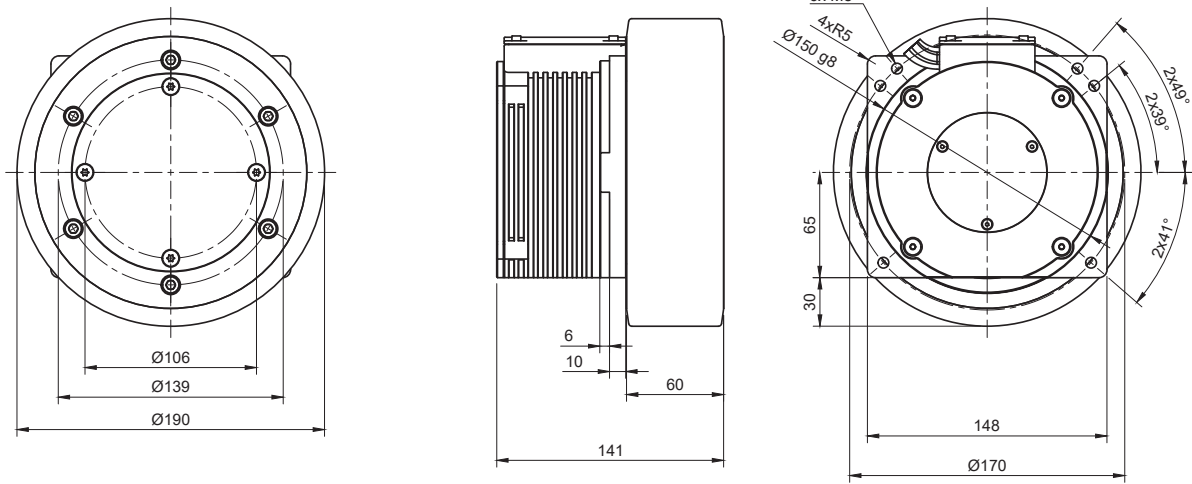


Product Highlights

- **High Torque:** 141 Nm max torque for superior acceleration
- **High-Speed Potential:** 190mm wheel supports speeds exceeding 3 m/s
- **Built for Heavy Loads:** Supports AGVs/AMRs with differential drive systems of up to 1.9 tons
- **Reliable Durability:** Engineered for over 30,000 hours of service life
- **Industrial Protection:** IP54 rating for demanding environments
- **Efficient Brake Control:** PWM control for energy-efficient braking
- **Proprietary design** - patent pending

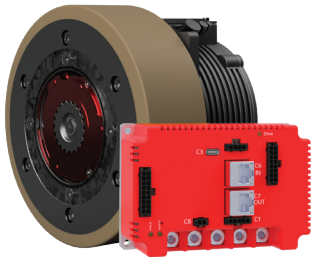


Model	Power (W)	Voltage (VDC)	Rated current / Peak current (Arms)	Gear ratio	Rated torque / Peak torque (Nm)	Rated speed (rpm)	Rated speed (m/sec)	Wheel Ø (mm)
MOT - HM	1400	48	40 / 130	10	45.7 / 141	300	2.98	190



Complete Safety. Seamless Integration.

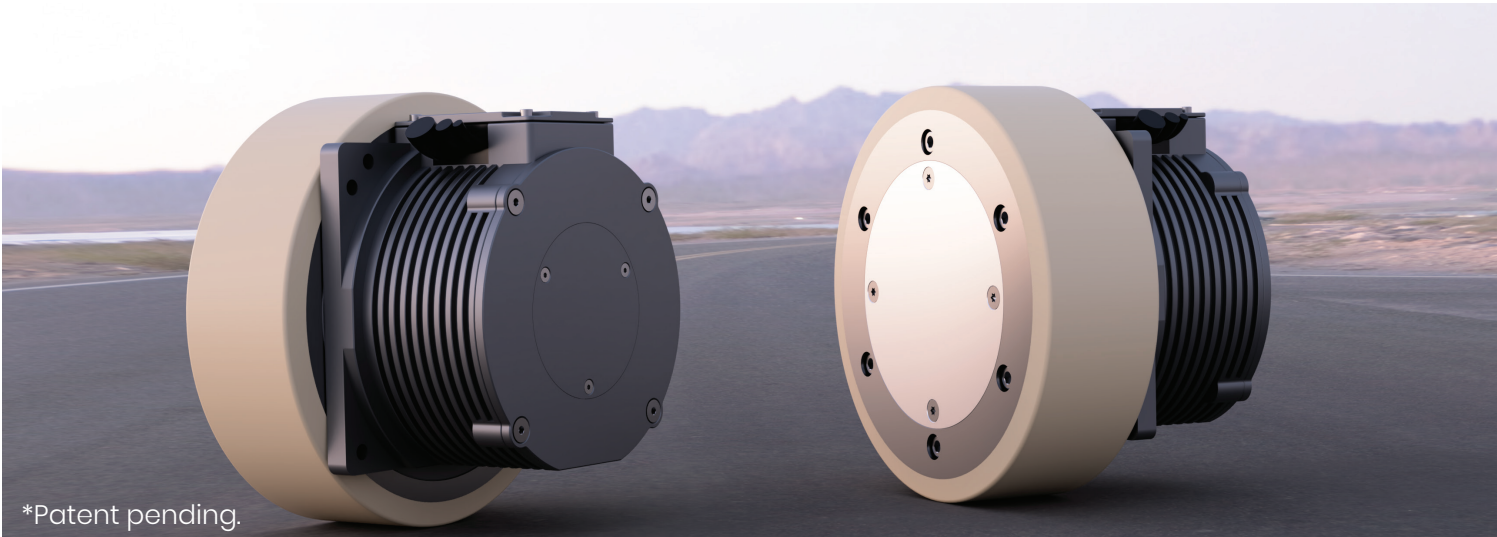
The **Wheel Hub Gear Motor + ZED 65** delivers a fully integrated **FSoE Safety Solution**, combining high-performance motion with advanced functional safety. With built-in **Safe Motion functions** and **Safety over EtherCAT (FSoE)**, this compact system ensures precise, reliable operation in mobile robots and automated systems.



Wheel Hub Gear Motor_Flyer_2025_EN_V1

Safe Motion Module supported functions:

Safe Torque Off (STO) | Safe Stop 1 (SSI-t, time-controlled) | Safe Brake Control (SBC) | Safe Stop 1 (SSI-r, ramp-monitored) | Safe Stop 2 (SS2-r, ramp-monitored) | Safe Operating Stop (SOS) | Safely limited Speed (SLS) | Safe Brake Test (SBT) | Safe Speed Monitor (SSM) | Safe Direction (SDI)



*Patent pending.