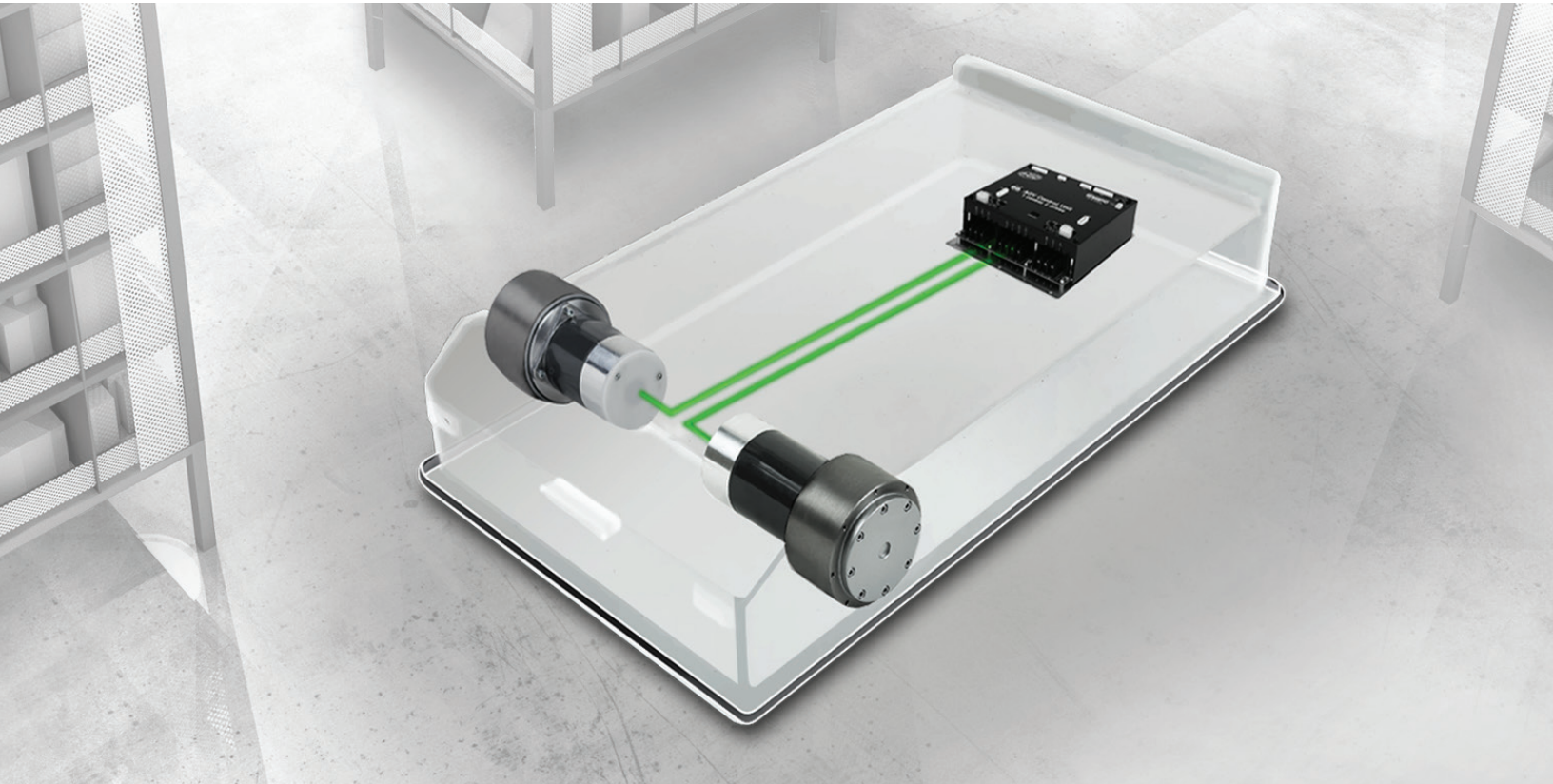




Wheel Drives for Automated Guided Vehicles



- High power density, low inertia brushless motors
- Ultra-compact, efficient, in-wheel planetary gearboxes
- Multiple voltage options, wheel diameters and payloads

NIDEC DRIVE TECHNOLOGY CORPORATION

70 Years of Motor & Drive Development. Your Competitive Advantage.

Highly Robust Geartrain

Fully supported helical planetary gearing. Hardened and ground to withstand high shock loads, high accelerations and maintain long service life. Quiet and smooth running for use in indoor noise-sensitive environments.

Powerful Brushless Motors

BLDC motors allow for high power density, fast dynamic response and low rotor inertia. 1,000 ppr encoders and dynamic brakes are included as standard equipment. Choose between 200W or 400W power ratings, and 24V or 48V supply voltage.

Compact & Fully Integrated

Planetary geartrain completely captured inside of the wheel, resulting in minimal axial footprint and high payload capacity. Mounting brackets allow direct mounting to AGV frame. BLDC motor with pinion shaft directly driving planet gears.

Scalable System Solution

External encoders available for additional positional feedback. Add a dual channel controller or a fully integrated motor with on-board drive that supports EtherCat and STO. Power management and navigation sensors also available for complete solution.

Maximum Efficiency

Energy savings and time required before charges is critical to manufacturers of AGVs and AMRs. Our gearbox efficiency is 95% due to use of special seal designs and lubricants. Brushless motor design allows for low rotor inertia and maximum efficiency.

Customer Specific Adaptation

Right angle hypoid or worm gearing can achieve a more compact profile when space is at a premium. PU, Besthane, Vulkollan tire materials available for various surfaces. Mounting brackets and cable management can be customized to fit customer chassis.



SU Series	SU-090	SU-120	SU-160
Wheel Diameter	150 mm	150 mm	200 mm
Gear Ratio	9:1	21:1	28:1
Radial Load Per Drive Wheel	350 kg	300 kg	800 kg
Rated Output Speed ¹	333 rpm	143 rpm	107 rpm
Max Output Speed ²	444 rpm	190 rpm	143 rpm
Wheel Running Speed	2.65 m/s	1.12 m/s	1.12 m/s
Starting Output Torque ³	39 Nm	91 Nm	122 Nm
Continuous Output Torque ³	10.5 Nm	25 Nm	33 Nm
Supply Voltage	24 or 48 V DC	24 or 48 V DC	24 or 48 V DC
Power	200 or 400 W	200 or 400 W	200 or 400 W
Encoder Resolution	1,000 ppr	1,000 ppr	1,000 ppr
Protection Class	IP54	IP54	IP54

¹ @ 3,000 motor rpm

² @ 4,000 motor rpm

³ Based on 48V and 400W

