

October 14, 2021

Nidec’s Traction Motor System, E-Axle 200kW Model, Drives the First Model of Geely Automobile Group’s Premium EV Brand, Zeekr

Nidec Corporation (TSE: 6594; OTC US: NJDCY) (the “Company” or “Nidec”) today announced that Ni200Ex, the Company’s 200kW, E-Axle traction motor system, has made its way into ZEEKR 001, an electric vehicle newly released by Chinese auto giant Geely Automobile Group, under its premium brand, “Zeekr.”



ZEEKR 001



E-Axle Ni200Ex

Developed based on the SEA (Sustainable Experience Architecture), which is the EV platform created by Geely Automobile Group’s ZEEKR Intelligent Technology, ZEEKR 001 is a premium EV of the shooting brake*1 segment (4,970mm in length x 1,999mm in width x 1,560mm in height). The user can choose either a single-motor or a dual-motor type (with a motor installed in the vehicle’s front and the rear, respectively). In the latter’s case, the maximum output is 400kW, with a maximum torque of 768Nm, a 0-100km/h sprint of 3.8 seconds, and a maximum speed of 200km/h. With an 86kWh or a 100kWh battery installed, ZEEKR 001 can travel up to 712km (on the NEDC mode), while its battery can accommodate rapid charging of up to 360kW. The vehicle can travel 120km after a five-minute battery charging. The sale of this vehicle in China is slated for 2021, while its global sale is set to start in 2022.

Ni200Ex, Nidec’s E-Axle to be installed in ZEEKR 001, is the third model in the Company’s E-Axle series, and the vehicle is the first one to adopt the traction motor system. Though the Company, based on its E-Axle lineup plan, was initially planning to start mass-producing Ni200Ex in 2023, it accelerated the plan significantly in time for ZEEKR 001’s market launch, to initiate the mass production in August of 2021. Created out of Ni150Ex’s basic structure, Ni200Ex is a compact unit that adopts a light, thin, short, and small motor’s structure that is based on the magnetic circuit design-derived knowhow and unique motor oil-cooling structure. They are both cultivated in the development of small precision motors – an area of Nidec’s specialty. Also, with an optimized design that employs second-generation inverters and other components, Ni200Ex contributes significantly to improving ZEEKR 001’s power, electricity consumption, and noise & vibration performances, and reducing the vehicle’s weight.

Nidec's traction motor system lineup



Nidec's E-Axles are characterized by being compact and light-weight as a result of their fully integrated designs that combine motors, inverters and gears. **Three of the Company's E-Axle models that are already available commercially: Ni150Ex, the 150 kW model that Nidec started mass-producing as the world's first Tier-1 company to do so in April 2019; Ni100Ex, the 100kW model whose mass-production was launched in November 2020; and Ni200Ex, the model that has recently been incorporated into ZEEKR 001.** In addition to these models, Nidec is currently developing two other ones: Ni70Ex and Ni50Ex. Armed with this world-class comprehensive lineup, the Company is capable of meeting the wide variety of the needs for its E-Axles to be installed in the vehicles of Segments A - E. The Company has set a target of achieving a 40 - 45% global share in the EV traction motor market by 2030, and the E-Axles will certainly spearhead this effort.

As Nidec aims to achieve 10 trillion yen in sales in 2030, its automotive business, particularly the traction motor enterprise, is expected to play a pivotal role. After becoming the world's first company to launch the production of the E-Axle traction motor system in April 2019, Nidec has sold more than 200,000 of the units in total by the end of August, and aims to hit the 10 million mark in 2030. Selling traction motors alone as well, the Company is capable of conducting R&D and production of traction motors as both modules and stand-alone units.

The world's leading comprehensive motor manufacturer, Nidec stays committed to developing products with its technologies to make light, thin, short, and compact products, as well as with efficiency improvement and control technologies, while providing extremely fast innovative solutions that contribute to the evolution of automobiles.

*1. A station wagon that bears the elements of the sports coupes

E-Axle-equipped vehicles and their models as of October 14, 2021 (in the order of adoption):

- (1) GAC Aion New Energy Automobile: *Aion S* (Ni150Ex, but vehicles of some other grades are equipped with Ni100Ex.)
- (2) GAC Toyota Motor: *iA5* (Ni150Ex)
- (3) GAC Aion New Energy Automobile: *Aion LX* (Ni150Ex)
- (4) GAC NIO New Energy Automobile Technology: *HYCAN 007* (Ni150Ex)
- (5) Geely Automobile: *Geometry C* (Ni150Ex)
- (6) GAC Aion New Energy Automobile: *Aion V* (Ni150Ex)
- (7) Guangqi Honda Automobile: *EA6* (Ni150Ex)
- (8) GAC Aion New Energy Automobile: *Aion Y* (Ni100Ex)
- (9) Geely Automobile: *Geometry A* (Ni150Ex)
- (10) Zeekr Intelligent Technology: *ZEEKR 001* (Ni200Ex) (as described herein)

For inquiries on the above products, please contact:
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Nidec was founded in Kyoto, Japan in 1973 by four engineers and has since grown into a world-leading comprehensive motor manufacturer encompassing more than 300 subsidiaries employing over 120 000 people throughout the world.

After becoming the first company in the world to successfully commercialize a direct drive spindle motor for HDDs using brushless DC motor technology, the company branched off into the automotive motor market which now constitutes its fastest growing business segment. Nidec's electric power steering motors, in particular, have captured the largest global market share and helped cement the company's position in the industry.