

KYB NEWS

Deploying Electric Power Steering System for Powersport Off-Road Vehicles

KYB has expanded the electric power steering system (hereinafter referred to as “EPS”) developed for powersport off-road vehicles.

The EPS system has been adapted to the harsh usage conditions of off-road vehicles that includes the following features:

- The world's first Rack Mounted EPS for off-road vehicles
(Contributing to the lowering of the vehicle's center of gravity)
- Quick steering gear ratio
- Improved waterproof performance (designed for submersion resistance)
- Expansion of the tie rod swing angle corresponding to a wider vehicle and increased suspension stroke
- Large diameter rack to improve impact strength and durability.

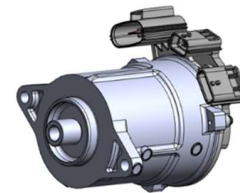
The EPS was developed for two models of Polaris Inc. in the United States on the RZR Side-by-Side vehicles. The two models are a part of the Polaris RZR Wide Open lineup, the all new RZR Pro R and RZR Turbo R, and are their highest performance models, and likewise are highly regarded for their steering performance and reliability.

The in-house development of both the brushless DC motor with its integrated ECU and its software (the design standardization of EPS core functional parts) allows KYB to provide high expandability and will also allow KYB to extend this steering technology to more types of vehicles such as small mobility vehicles, electric vehicles, and autonomous vehicles, etc.

Furthermore, the brushless DC motor with its integrated ECU is equipped with an actuator (itself provided with a controller) that can be available for sale separately as a single unit. The motor can also be used in a variety of applications by customizing the magnet and the motor length which adapts them to the software and the required torque.



Electric Power Steering
for Off-Road Vehicles



Brushless Motor
with Integrated ECU

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Polaris RZR Pro R



Polaris RZR Turbo R

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