

Wide Range Drive System for EV

EXEDY

Under Development

We propose a Wide Range Drive System that aims to improve the performance of EVs through fluid technology, one of our core technologies. While a combination with a stepped transmission has been proposed as a measure to improve the performance of EVs, our "Wide Range Drive System" features smooth power transmission without shocks from the transmission by placing an EV-specific torque converter on the output side of the motor.

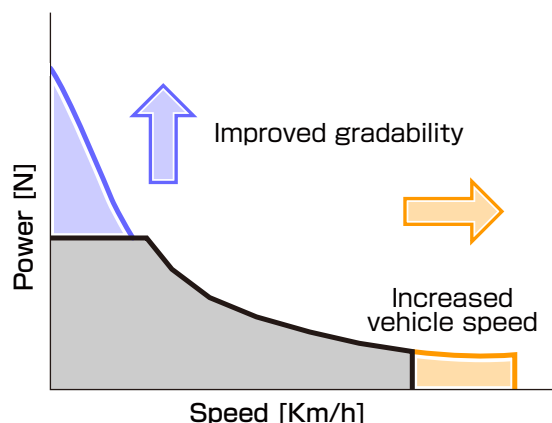
In addition to improved drive performance through torque amplification, this system improves reliability as it reduces coil heat generation. Also, the fluid of the torque converter reduces motor vibration, enabling smooth driving with variable gearing.

Concept

A low-cost system that achieves both gradability and high speeds

Aim

- Improved drive performance
 - Improved gradability
 - Higher vehicle speed (due to higher gear)
- Improved electricity efficiency
 - Power consumption reduction by the use of a dedicated motor.
- Vibration reduction
 - Fluid contributes to smoother drive
- Reduced heat generation of motors and inverters
 - Cost reduction of motors and inverters
 - Improved robustness
- Lower output
 - Downsizing of motors and inverters (with equal drive performance conditions)



For passenger cars, commercial vehicles, industrial and construction machinery, ultra-compact mobility solutions

Configuration Diagram

