

Nidec Develops New Electric Power Steering (EPS) Powerpack for Automobiles

Nidec Corporation is announcing the production design of a fully integrated ECU (Electronic Control Unit) and electric motor for Electric Power Steering (EPS Power-pack). This is a synergy product that combines the technologies of Nidec Corporation and Nidec Elesys Corporation that specializes in electronic control units.

Responding to the need for more compact and lightweight automobile components, we have integrated our motors and control units, resulting in a more space-efficient product. Furthermore, full integration of these previously separate components comes with a host of other benefits, including reduced use of material and lower manufacturing costs. Integrated motors and ECUs also eliminate the need for a connection harness, bypassing the problem of noise introduced by the wire harness acting as an antenna. In addition, we have also taken great care to improve their controllability as well, such as the steering feeling, noise and vibration.

Nidec Corporation's newly developed EPS powerpack system is approx. 15% shorter in length and approx. 20% lighter in weight when compared to our major competitors. The powerpack is scalable from 3Nm to 6Nm depending on the steering load requirement. Considering the advance of autonomous driving in the future, we have outfitted our new EPS powerpack system with Nidec-developed control software, such as Parking Assist and Lane Keep Assist. Also there is an increasing need for fault tolerant design and redundant fail safe designs (winding, microcontroller) and these features will also be available.

Nidec launched the production of the EPS powerpack in 2017. The product will be displayed at our booth during the International Motor Show (IAA) held in Frankfurt, Germany Sep 12 - Sep 24.



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