Servolectric® electric power steering system

Steering motors

PRODUCT BENEFITS

- Highly precise steering assistance
- Highly efficient electric motor thanks to state-of-the-art materials
- Extremely compact size
- Optimized noise level and torque ripple of the electric motor
- Optimal adaptation to customer requirements thanks to incremental output ratings and modular design of the powerpack
- Suitable for use at high speeds
- Extended temperature range

1. Control unit
2. Housing
3. Drive shaft
**2–8 Nm**
The available torque covers the requirements of all passenger cars and light commercial vehicles.

**400–800 W**
Power output available depending on the vehicle class for the individual variants of the steering motors.

**TASK**
Electronic control and steering assistance that uses Servolectric® only requires an easy-to-use medium: electric current. The electric motor provides the universally available, reliable, and economical energy supply. The newly developed generation of brushless electric motors provides the assistance calculated by the Servolectric® electronic control unit with high precision and in accordance with the particular driving conditions.

**FUNCTION**
Depending on the variant, the motor torque is transferred in various ways. On the paraxial variant the torque is transmitted to the servo gear system (toothed-belt drive and recirculating ball gear) via a toothed disc located on the motor shaft. On the Servolectric® steering column variant and the dual-pinion variant, the torque is transmitted to the helical gear by means of a coupling.

**VARIANTS**
The same motor and stator components are used for all Servolectric® steering variants. Various motor designs with ratings of 2 Nm to 8 Nm can be produced by modifying the interfaces and housings.

1. Drive shaft
2. Stator
3. Rotor
4. Integrated control unit
5. Signal input