



# **Electric Vehicle Solutions**

The emission norms & global warming is putting the pressure on the automotive industry, so the challenges coming on EV powertrain & bringing new requirements. We are developing flexible solutions to overcome the challenges to fulfill the demands.

# **Power Train Challenges**

- ✓ Lower losses
- ✓ Lower noise
- ✓ Light weight
- Higher durability
- Complex controls

# **Bearing Requirements**

- → High speed capabilities (19000 rpm)
- Ultra low friction bearings
- Lower noise
- Coatings
- ✓ Power dense compact
- Improved lubricants conductive, low viscosity
- Insulated solutions
- Sensor bearing

# **Applications**

- ✓ Electric motor
- ✓ E-Axle
- Gearbox





## **Two Wheeler**



**Hub Motor Power:** 

~1-1.5kW

Lower Speed: <1000rpm

### 3W / Quadra



**Motor Power:** 

8.5kW

**Motor Speed:** 

~9000rpm

**Transmission:** 

Two-stage

**Reduction Ratio:** 

1:9 - 1:13

### Car



**Motor Power:** 

90kW

**Motor Speed:** 

5000rpm -15000rpm

Transmission:

Two-stage

**Reduction Ratio:** 

1:8 - 1:18

LCV / HCV



**Motor Power:** 

90-150kW

**Motor Speed:** 

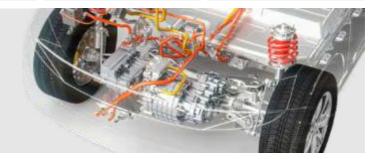
6000rpm -19000rpm

**Transmission:** 

Two-stage

**Reduction Ratio:** 

1:8 - 1:18





Oil Impregnated Bearing



NBC 'EMB' Series Bearing



Compact Solutions -Special HT



'INSUOHM' Bearing



Sensor Bearing

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