

# Dual Motor Dynamometer

## AxialTQ™

Industry: Automotive and Vehicle

### Summary

#### Customer Challenge

A vehicle manufacturer needs a torque measurement system for their dual motors used in both their electric and hybrid vehicles. The system needs to test the torque and speed of their electric motors.

#### Interface Solution

Two of Interface's AxialTQ™ Wireless Rotary Torque Transducer (which comes with the AxialTQ™ Output Modules and the provided AxialTQ™ Assistant software) can be installed to a both ends of the dual-ended dynamometer, thus testing two motors at the same time. Data results are calculated and collected in real-time using the AxialTQ™ Output Module and assistant software.

#### Results

Interface's AxialTQ™ Wireless Rotary Torque Transducers accurately measured the torque and RPM of both of the electric and hybrid vehicle motors used in dual-motor electric and hybrid vehicles.

### Materials

- Two AxialTQ™ Wireless Rotary Torque Transducer with rotors and stators
  - Two AxialTQ™ Output Module
  - supplied AxialTQ™ Assistant Software
- AxialTQ™ Speed Gear Option
- Interface Integrated Disc Couplings
- Two Customer PC's or Laptop's
- Customer's test fixture

### How It Works

1. Two AxialTQ™ Wireless Rotary Torque Transducers are installed on the dual-ended dynamometer.
2. The AxialTQ™ Wireless Rotary Torque Transducers tests and senses both of the electric vehicles motor attached with high accuracy. It both measured and calculated the electric vehicles torque and rotational speed (RPM), while collecting data.
3. Results can be reviewed on two customer PC 's or laptop's with two included AxialTQ™ Assistant Software. Also, the analog outputs from each ATQ can be sent to the customers system for further evaluation.

