

# eTorque Vectoring

Magna's proprietary Twin-Clutch eTorque Vectoring system with corresponding software and controls supports best-in-class dynamics and safety up to 300 kW power per axle for BEV, HEV, and PHEV vehicles. Magna also supplies a Duo Drive (2 E-motor) eTorque Vectoring system for applications that require more than 300 kW power per axle.



## Features and Specifications

### Twin-Clutch eTorque Vectoring

- Up to 300 kW power per axle
- Diff lock (eLSD), disconnect, and peak-torque limitation functions included
- Up to 2,500 Nm TV superposition torque
- Use of Magna production platform components
- Full torque vectoring capability when used with vehicle braking system

### Duo Drive (2 E-motor) eTorque Vectoring

- >300 kW power per axle
- Full torque vectoring capability at low torque range
- No clutch or brakes required

## Competitive advantage/differentiators

### Twin-Clutch eTV Design

- **Efficiency**  
150 W drag loss, low complexity & efficient pricing
- **Safety**  
up to 6,000 Nm axle torque based on high volume electromechanical system
- **Convenience**  
+/-10 % system torque accuracy
- **Dynamics**  
< 100 ms response time

### Duo Drive 2 E-motor eTV Design

- **Efficiency**  
High efficiency gear train and lubrication concept
- **Safety**  
Optional dual-park lock function (ASIL compliant)
- **Convenience**  
Tailored Packaging: T- or H- shaped layout available
- **Dynamics**  
Optional 2-speed capability for significantly increased output Torque (peak & continuous) supporting superior gradeability and increased towing Torque

Ideation

Discovery

Concept

Development

Serial Preparation

in Production