

eDecoupling

Magna's electromagnetic eDecoupling acts as a stand alone or integrated power flow decoupler for EV applications. With quick activation times, superior NVH behaviour via integrated powertrain controls and compact packaging, the Magna eDecoupling increases EV range by reducing drag torque of e-motor and gearbox in primary and secondary eDrive systems.



Features and Specifications

- Activation time: <100 msec (design dependent)
- Improves EV travel range up to 9% by reducing drag-torque losses
- Components scalable in size to meet torque requirements
- Low input current
- Minimal power consumption (<6 W)
- Integrated position sensors included in design as required
- Available with monostable or bistable configurations

Competitive advantage/differentiators

- eDecoupling integrates into differential or EV link shaft as a complete module
- Compact design minimizes added package space and weight in axial or radial direction
- In-house coil design assures quick activation times to maximize performance and efficiency
- Seamless integration via powertrain controls to ensure best NVH

Applications/benefits

- Decouple rotating power of e-motor and gearbox in primary (HEV) or secondary eDrive systems
- Improve electric vehicle travel range by reducing e-motor and gearbox drag-torque loss
- Modular design can be scaled for use in electric vehicles from B segment up to SUV and LCV

SOP

Ideation

Discovery

Concept

Development

Serial Preparation

in Production