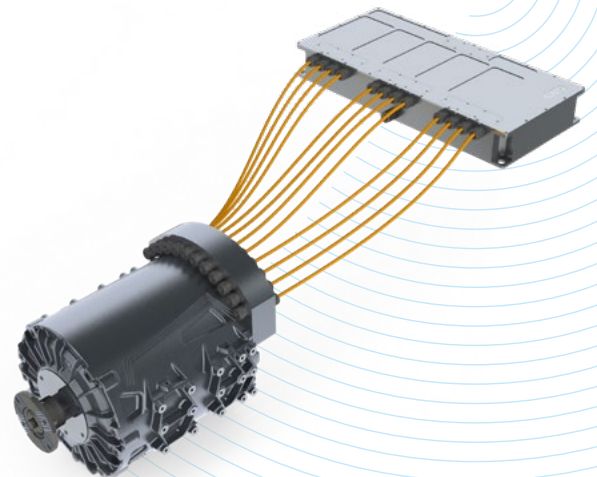




Coil Drive System™ High Voltage: 800V Motor & Inverter System

The world's most intelligent traction drive system solution.

Exro Technologies' Coil Drive System™ (CDS) is an intelligent traction drive system, designed to integrate with standard direct drive and axle powertrains. CDS is powered by Exro's revolutionary Coil Driver™ technology and integrated with a Permanent Magnet Synchronous Motor (PMSM). Exro's patented technology uses intelligent coil switching to optimize the powertrain, enhance torque, improve performance, and reduce cost in heavy duty electric vehicles.



Unique Advantages

- **High torque at low speed:** Gain enhanced startability and gradeability.
- **Expanded torque at high speed:** Accomplish improved performance and power efficiency at high speed.
- **Reduced total system cost:** Reduce complexity and downtime while also lowering system costs.

Benefits

- › Multiple dynamic torque profiles optimized for low and high-speed heavy duty applications
- › Increased high-efficiency range
- › Improved gradeability across the speed range
- › Next generation direct coil control algorithms
- › Easy Integration with standard direct drive powertrains
- › SiC-based inverter with higher efficiency and improved driving range

Optimal Applications



Heavy-Duty Trucks



Commercial Vehicles



Municipal Vehicles

System specifications

Max DC voltage (VDC)	1200
Performance voltage (VDC)	600–800
Peak power (kW)	900
Continuous power (kW)	210
Peak torque (Nm)	4300
Continuous torque (Nm)	1335
Peak per phase current (Arms)	800
Continuous per phase current (Arms)	350
Cooling	Liquid cooling jacket
Cooling medium	50% G40/G48—50% water
Coolant flow (L/min)	25
Operating temperature (C)	-40 to 60
System weight (kg)	346
Inverter dimensions (mm)	855 x 406 x 120
Motor diameter(mm)	524

Motor height (mm)	534
Motor length (mm)	666
Efficiency (%)	95+
Ingress protection	IP6K9K
Component standards	AEC-Q100/AEC-Q101/ AEC-Q200/ROHS
Toxic material and flammability	UL94-V0
Functional safety	ISO26262
Automotive quality management system	IATF16949
Automotive electromagnetic compatibility (EMC)	CISPR-25
Shock and vibration standard	GMW3172 sprung masses
Control Interface CAN 2.0b—Programmable	J1939, open
CAN controller compliance	ISO11898-1

Performance

