

ELECTRAAX™

High-Efficiency, Lightweight Electric Drive Axle for Medium-Duty Trucks and Buses



Built to Move What's Next



ELECTRAAX™
powered by  **Driventic**

ELECTRAAX™, created in partnership with Driventic, is a high-efficiency electric drive axle engineered to increase range or reduce battery requirements for Class 6-7 medium-duty vehicles. This ePowertrain design integrates the axle, gearbox, motor and inverter into a single optimized system to reduce weight, unlock packaging space and elevate overall vehicle capability. ELECTRAAX is available in Gross Axle Weight Rating capacities up to 23,000 pounds.

To learn more about ELECTRAAX,
call 855.743.3733 or visit www.electraax.com

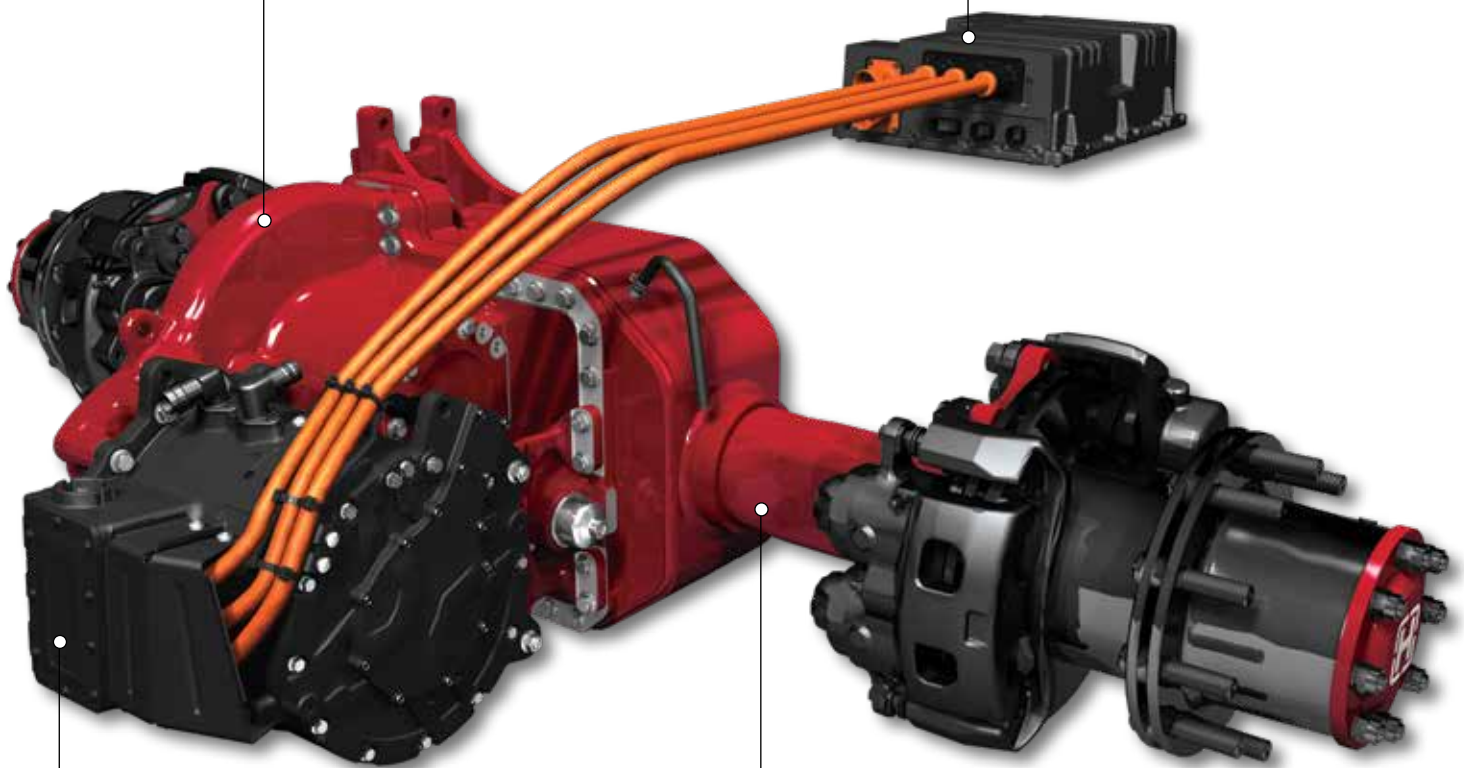
HENDRICKSON
The World Rides On Us®

Single-Speed Gearbox

- Smooth driveability without shift quality concerns, optimized for delivery market and bus driving conditions
- Cylindrical parallel shaft gears reduce energy losses compared to designs with 90-degree hypoid gearing
- Reduced friction relative to multi-speed gearboxes
- Increased reliability and reduced complexity through fewer components

High-Performance Inverter

- Optimized power density
- Dual-core DSP and dual-core application controller for high control accuracy
- AUTOSAR based software
- Latest IGBT technology



Powerful, Externally Mounted Motor

- Extended peak torque for sustained, consistent power during acceleration and hill climbs
- High power efficiency
- Full motor-torque regeneration
- Serviceable without disrupting the gear train

Flexible Modular Design

- Innovative fabricated design is able to deliver a wide variety of track width, gear train, suspension and brake options
- Designed for ease of OEM chassis integration
- Frees up packaging space for additional batteries or other vehicle equipment

Help reduce energy costs and extend vehicle range

- The application-specific architecture allows ELECTRAAX to deliver up to 94 percent system efficiency
- Elevated energy efficiency extends vehicle range by up to 40 percent*
- Integrated, fabricated axle framework reduces vehicle weight by up to 357 lbs.*
- Full motor torque regenerative braking helps maximize energy recovery
- Single-speed gearbox design eliminates unnecessary friction from inactive gear mesh during low- and high-speed operation
- Driventic's purpose-built electric drive system pairs a powerful, efficient motor with an optimized inverter to contribute to the superior system efficiency

*Compared to central drive systems powering traditional drivetrains

How It Works

The chassis-mounted inverter converts electricity from the batteries while controlling the operation of the electric motor. Electrical energy is converted to mechanical energy through the transverse electric motor and transmitted into the single-speed 2-stage gearbox. The gearbox transmits this torque through the differential, into the axle shafts and finally into the wheels.

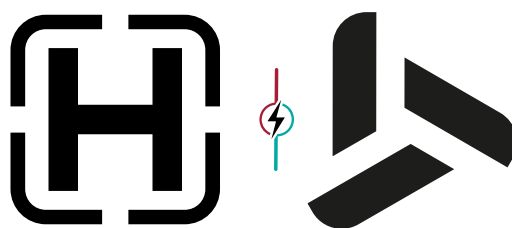
The integrated ePowertrain design reduces energy losses relative to a central drive system by removing the need for a driveshaft. Additionally, ELECTRAAX's gearbox uses parallel helical cylindrical gearing which provides improved efficiency over designs with 90-degree hypoid gearing. This robust design allows for up to 100 percent motor-torque regeneration. Finally, the use of single-speed gearing further reduces losses during low- and high-speed operation, resulting in an optimized solution designed for the driving conditions of medium-duty truck and bus customers.

ELECTRAAX™



System Peak Efficiency	Up to 94 percent
Continuous Power Range (kW)	200
Peak Power (kW)	320
Peak Total Output Torque (Nm)	18,050 ¹
Peak Torque Duration (seconds)	Up to 30
Motor Torque Regeneration	Up to 100 percent
High Voltage Range (V)	400 - 850
Gross Axle Weight Rating (lbs.)	Up to 23,000
Applications	Pickup and Delivery, School Bus
Functional Safety Rating	ISO 26262
Ingress Protection	IP67 and IP6K9K
Cybersecurity	ISO 21434
Electromagnetic Compatibility	ECE R10

1. Based on peak motor torque of 950 Nm, with a gear ratio of 19



Actual product performance may vary depending upon vehicle configuration, operation, service and other factors.
All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration.
Contact Hendrickson for additional details regarding specifications, applications, capacities, operation, service and maintenance instructions.

Call Hendrickson or visit our global websites for additional information.



840 South Frontage Road, Woodridge, IL 60517-4904 USA
+1.630.874.9700 • www.hendrickson-intl.com

**Hendrickson
Commercial Vehicle
Systems Europe GmbH**
Gussstahlwerkstraße 21
8750 Judenburg, Austria
+43 664 817 13 60
eu.hendrickson-intl.com

**Hendrickson
Truck Commercial
Vehicle Systems**
800 South Frontage Road
Woodridge, IL 60517-4904 USA
+1.855.743.3733
+1.630.910.2800
www.hendrickson-intl.com

**Hendrickson
Trailer Commercial
Vehicle Systems**
2070 Industrial Place SE
Canton, OH 44707-2641 USA
+1.866.743.3247
+1.330.489.0045
www.hendrickson-intl.com

**Hendrickson
Commercial Vehicle
Systems Oceania**
32-44 Letcon Drive
Dandenong South, Victoria,
3175 Australia
+61 3 8792 3600
aus.hendrickson-intl.com

**Hendrickson
Commercial Vehicle
Systems China**
No. 1668
North Section of Chunbo Road
East New Dist of Jinan High-Tech
Industrial Development Zone,
Jinan City, Shandong Province,
China, 250104
+86 531 8880 9055
china.hendrickson-intl.com

**Hendrickson
Commercial Vehicle
Systems India**
Plot No. 4 & 5, Gat. No. 679/2
Behind Hotel Gandharva
Alandi Kuruli Road, Kuruli (Chakan)
Taluka Khed, Pune 410501, India
+91 2135 662600
india.hendrickson-intl.com

**Hendrickson
Commercial Vehicle Systems
UK**
1-9 Booth Drive
Park Farm Industrial Estate
Wellingborough, NN8 6GR,
England
+44(0) 1604 493161
uk.hendrickson-intl.com