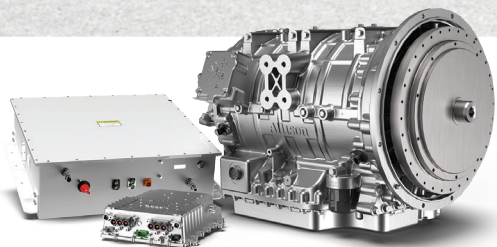




eGen Flex®



Electrify Your Fleet with Allison's
Revolutionary eGen Flex® Electric Hybrid



Up to 50% of route in full EV
No Additional Charging
Infrastructure Required



Leading the Charge Toward Electrification

Allison Transmission is taking our proven H 40/50 EP™ electric hybrid propulsion systems to the next level with the eGen Flex® electric hybrid. The eGen Flex® provides revolutionary capabilities and electric-only operation when you need it without the additional charging infrastructure requirements associated with full EV fleets.

Our electric hybrid systems continue to demonstrate bottom-line operating benefits for municipalities and fleets around the world while delivering industry-leading performance, reliability and durability.

Delivering the Flexibility to Meet Your Changing Needs

We’re always developing new, innovative technologies on our path to zero emissions. As community requirements change, so do our solutions. Allison is committed to zero-emission technologies, so we’ve evolved the eGen Flex® using geofencing technology to eliminate engine emissions and noise while loading and unloading passengers in designated zero-emission zones and dense pedestrian areas. When it comes to transit, we’re not slowing down on the road to electrification and creating cleaner, quieter communities.

Reduce Dependence on Fossil Fuels

- Improved fuel economy up to 25% versus conventional diesel bus
- Operate accessories such as air conditioning and heat at their optimal efficiency with clean, quiet electric power
- No additional charging infrastructure required

Enhance Quality of Life

- No engine emissions or noise while loading and unloading passengers or in dense pedestrian areas

Protect the Environment

- Capable of running up to 50% of a bus’s daily route in electric-only operation
- Ability to switch to full EV operation in zero-emission zones and bus depots with geofencing capability
- Reduced CO₂ emissions

Reduce Downtime and Maintenance Costs

- Eliminate inefficient belt-driven accessories and reduce the load on the engine
- Reduced brake wear through regenerative braking
- Industry’s most reliable name in electric hybrid propulsion



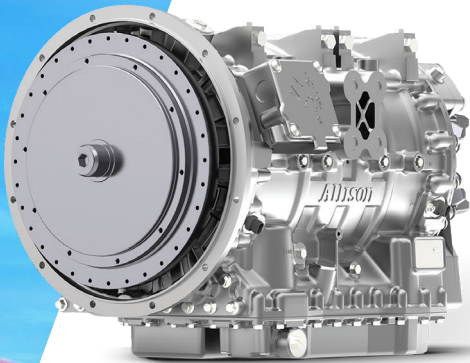


Proven Solution. Enhanced Value.

The eGen Flex® and its revolutionary components are the next generation of Allison’s proven H 40/50 EP™ electric hybrid propulsion system, which has been operating in transit buses for nearly 20 years.

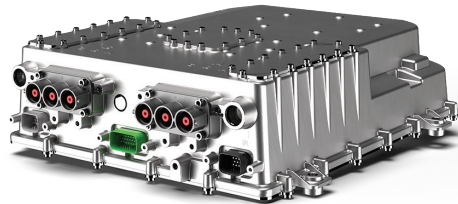
Drive Unit

- The next generation of the proven industry-leading H 40/50 EP™
- Disconnect clutch added to enable disengaging input shaft from the engine
- Provides propulsion while the engine is at zero speed, enabling electric-only operation



Inverter

- Improved efficiency
- Improved packaging – one-third the size and 50 lbs. lighter than inverter used in earlier generation electric hybrid systems
- WEG cooling – no oil-coolant lines from drive unit, reducing installation complexity and maintenance costs



Rechargeable Energy Storage System

- Lithium Titanate (LTO) chemistry ideal for electric hybrid operation with constant recharging
- Increased energy capacity – up to 50% of route on electric-only operation*
- Battery design life of eight years
- Faster charging than other chemistries



*Duty-cycle dependent

A Global Leader in Electric Hybrid Transit

- First to launch an electric hybrid solution for both articulated and non-articulated buses
- 10,000 hybrid propulsion systems delivered globally
- Serving over 230 cities
- Over 3.7 billion miles of reliable operation
- Over 435 million gallons of fuel saved



Allison Transmission eGen Flex®

Ratings

Model	Continuous	Rated Input Torque	Maximum Input Speed	Dry Weight	Wet Weight
	hp (kW)	lb-ft (N•m)	rpm	lbs (kg)	lbs (kg)
eGen Flex® 40 Drive Unit - Transit Bus ¹	280 (209)	910 (1234)	2350	913 (414)	938 (425)
eGen Flex® 50 Drive Unit - Suburban Coach/ Articulated Bus ²	330 (246)	1050 (1424)	2350	913 (414)	938 (425)
Rechargeable Energy Storage System (RESS)				1322 (600)	
Dual Traction Inverter (DTI)	260 kW continuous 3-phase AC			48 (22)	

1 Applicable for H 40 EP, eGen Flex® 40, eGen Flex® 40 CertPlus, eGen Flex® 40 Max, eGen Flex® 40 Max CertPlus 2 Applicable for H 50 EP, eGen Flex® 50, eGen Flex® 50CertPlus, eGen Flex® 50 Max, eGen Flex® 50 Max CertPlus

Features

	eGen Flex® 40/50	eGen Flex® 40/50 CertPlus	eGen Flex® 40/50 Max	eGen Flex® 40/50 Max CertPlus
Allison Drive Unit with disconnect clutch	✓	✓	✓	✓
Allison 26 kWh Lithium Titanate (LTO) Rechargeable Energy Storage System (RESS)	✓	✓	✓	✓
Allison Dual Traction Inverter (DTI)	✓	✓	✓	✓
Allison 5th Generation Controls	✓	✓	✓	✓
Acceleration Rate Management	✓	✓	✓	✓
Hybrid Mode	✓	✓	✓	✓
Increased Accessory Power 2 (IAP2) - Accessory electrification capability	✓	✓	✓	✓
Engine Start-Stop	✓	✓	✓	✓
EV Mode	Not Available	Not Available	✓	✓
Pre-Charge Mode	Not Available	Not Available	✓	✓
Depot Mode	Not Available	Not Available	✓	✓
Zero-Emission Zone Mode	Not Available	Not Available	✓	✓
Up to 50% of route in EV Mode operation	Not Available	Not Available	✓	✓
Geofencing (to support Zero Emission Zones, Pre-Charge Mode, and Depot Mode)	Not Available	Not Available	✓	✓
California Air Resources Board (CARB) Certified	No	✓	No	✓



A World of Support

From our headquarters in Indianapolis, Indiana, USA, to our manufacturing plants in Hungary and India, to approximately 1,600 Allison Authorized Distributors and Dealers around the globe, you are never far from the products, training, service and support you demand.

Our support starts from the moment an Allison transmission is specified. We work with you to ensure that the model and ratings fit your engine to create a tailored package of powerful performance and reliable efficiency. When you need parts or service, you can count on global access to factory-trained specialists and Allison Genuine Parts™.



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allisontransmission.com

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