



Driving Cities Forward

Power and Efficiency for Any City

For more than 100 years, Allison Transmission has been leading the charge in innovative propulsion solutions. No matter your fleet—conventional diesel, CNG, electric hybrid or fully electric—you can trust Allison to drive you into the future.

We know every route is important, so each product that comes off our line delivers the industry's most reliable customer support network. No matter your needs, we'll be there every mile.



OVER 100
Bus OEMs Choose Allison Automatics

Accelerating the Transition Into Zero Emission Zones

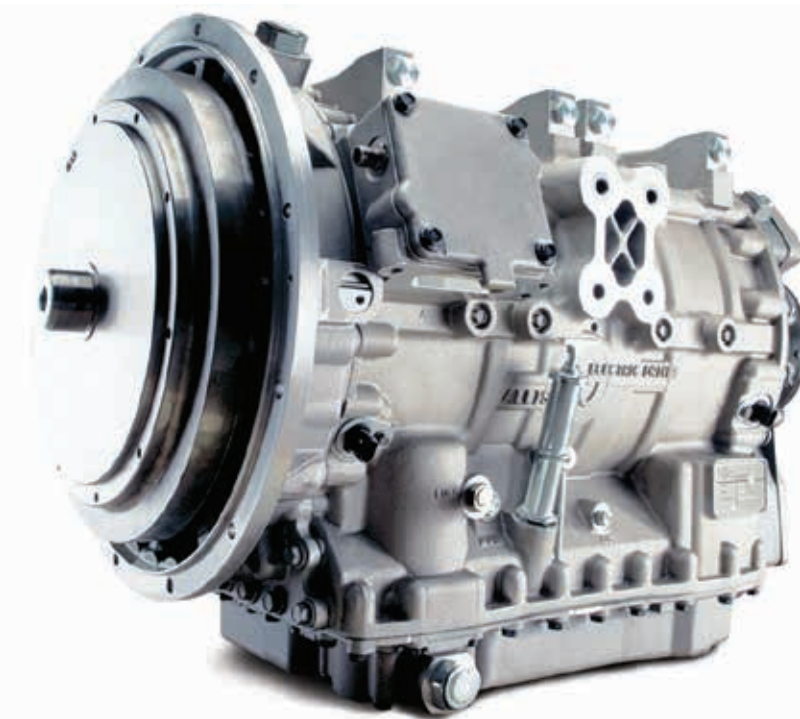
Electrifying the Future

Allison is passionate about moving transit technology forward and rethinking ways to evolve vehicles into full electrification. From our proven conventional and H 40/50 EP™ electric hybrid transmissions to our revolutionary eGen Flex™ electric hybrid and expanding fully electric axle technologies, we're determined to provide our cities with innovative propulsion solutions. Your fleet can achieve greater range, fewer emissions, increased power, more time on the road and industry-leading durability and reliability. If you're ready to drive into the future, do it with an Allison.

Always Looking Forward

Innovation is more than a philosophy at Allison. It's a way of life. Since 1947—when we introduced the world's first fully automatic transmission for buses—Allison has been working to deliver propulsion systems that safely and reliably move from stop-to-stop and city-to-city. Today, we're proud to offer cleaner, more efficient options to meet the environmental and energy-saving goals that cities and municipalities desire. This spirit of innovation has its roots in our patented torque converter and has allowed us to hone new fuel-efficient technologies like xFE and FuelSense® 2.0 with DynActive® Shifting.

Leading the Charge



A Revolution in Propulsion The Electric Hybrid Advantage

H 40/50 EP™ Series

Allison Transmission's H 40/50 EP™ Series is a proven, innovative electric hybrid propulsion solution that dependably and efficiently powers transit vehicles across the globe.

eGen Flex™

We've ushered in a new generation of electric hybrid propulsion systems with the eGen Flex™. This electric hybrid provides unprecedented capabilities and fully electric propulsion when you need it.

	H40/50	eGen Flex
Reduced emissions, quieter operation and up to 25% fuel savings (depending on duty cycle)	✓	✓
Regenerative braking converts the vehicle's kinetic energy to stored electric energy when decelerating or stopping	✓	✓
Fast, smooth acceleration and innovative Start-Stop technology	✓	✓
No additional infrastructure investment required	✓	✓
Performance during emergency alternative route situations and power outages	✓	✓
Electric range up to 10 miles, dependent on duty-cycle and axle-ratio		✓
Electric vehicle operation in Zero Emission Zones and bus depots with geofencing capability		✓

No matter where you are on the path to full electrification, we have the right solution for you—and your bottom line.

American Made

Headquartered in Indianapolis, Indiana, Allison Transmission sits in the heartland of America. Our commitment to constant innovation has helped us become a global leader in the production of propulsion solutions for transit.

While we've expanded our operations across the globe, our roots run deep in the USA, and our company's culture is proudly American. Allison's celebration and utilization of American ingenuity has led to rolling out our transmissions in 43 states, plus Washington, D.C. and Puerto Rico. Our products are engineered, designed and built by your families, neighbors and friends. We're working hard in your hometowns, big cities and everywhere in between. The people you trust, making the Allison products you can depend on.

Unmatched Transit Commitment

- 9,000 Allison Hybrids delivered worldwide
- Serving 230 cities
- Present in 43 states in the USA
- 2.6 billion miles of reliable operation
- 305 million gallons of fuel saved
- 3 million metric tons of CO₂ emissions prevented
- Trusted around the globe, made in the USA
- First to launch an electric hybrid solution for both articulated and non-articulated buses
- Only propulsion partner with solutions available for diesel, natural gas and electric hybrid buses



Allison Transmission Bus Series™

Ratings

Model	Ratio	Park Pawl	Max Input Power ² w/o SEM	Max Input Power w/SEM Torque Limiting ^{2,3}	Max Input Torque ² w/o SEM	Max Input Torque w/SEM Torque Limiting ^{2,3}	Max Turbine Torque ⁴	Max GVW	Max GCW
			hp (kW)	hp (kW)	lb-ft (N•m)	lb-ft (N•m)	lb-ft (N•m)	lbs (kg)	lbs (kg)
B 210 ¹	Close Ratio	No	230 (172)	270 (201)	520 (705)	575 (780)	850 (1152)	29,000 (13,150)	29,000 (13,150)
B 220 ¹	Close Ratio	Yes	230 (172)	270 (201)	520 (705)	575 (780)	850 (1152)	29,000 (13,150)	29,000 (13,150)
B 295	Close Ratio	N/A	230 (172)	N/A	620 (841)	N/A	1370 (1857)	33,000 (14,968)	33,000 (14,968)
B 300	Close Ratio	N/A	280 (209)	N/A	735 (997)	N/A	1370 (1857)	38,000 (17,236)	38,000 (17,236)
B 400									
Transit	Close Ratio	N/A	300 (224)	N/A	925 (1254)	N/A	1370 (1857)	45,000 (20,412)	45,000 (20,412)
Tour Coach	Close Ratio	N/A	330 (246)	N/A	1000 (1356)	N/A	1600 (2170)	45,000 (20,412)	45,000 (20,412)
B 3400 xFE	Close Ratio	N/A	300 (224)	N/A	925 (1254)	N/A	1370 (1857)	45,000 (20,412)	45,000 (20,412)
B 500									
Transit	Close Ratio	N/A	420 (313)	N/A	1300 (1763)	N/A	2450 (3322)	—	—
Tour Coach	Close Ratio	N/A	550 (410)	N/A	1700 (2305)	N/A	2450 (3322)	—	—

1 Available with xFE. 2 Gross ratings as defined by ISO 1585 or SAE J1995. 3 SEM = engine controls with Shift Energy Management. 4 Turbine torque limit based on iSCAAN standard deductions.

Model	Continuous	Rated Input Torque	Rated 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)	2300	913 (414)	938 (425)
eGen Flex 50 Drive Unit - Suburban Coach/Articulated Bus ²	330 (246)	1050 (1424)	2300	913 (414)	938 (425)
H 40 - Transit Bus	280 (209)	910 (1234)	2300	913 (414)	938 (425)
H 50 - Transit/Coach	330 (246)	1050 (1424)	2300	913 (414)	938 (425)
Rechargeable Energy Storage System (RESS)				1201.5 (545)	
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 50 CertPlus, eGen Flex 50 Max, eGen Flex 50 Max CertPlus

Gear Ratios Torque Converter Multiplication Not Included

Model	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Reverse	2nd Reverse
B 210 ¹ /B 220 ¹ /B 295 ¹	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1 ²	—	-4.49:1	—
B 300/B 400	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	—	-5.03:1	—
B 3400 xFE	3.49:1	2.03:1	1.47:1	1.00:1	0.69:1	0.59:1	—	-3.80:1	—
B 500	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	—	-4.80:1	—

1 Available with xFE. 2 Check with you OEM to ensure offerings.

Features + Advantages

Shift Energy Management (SEM) with torque limiting

Ratings up to 270 hp/575 lb-ft on B 210 and B 220.

High-density start-stop calibrations

Improves shift operations, especially in congested traffic environments. Available on B 210 and B 220.

Neutral at Stop

Automatically eliminates the load on the engine when the vehicle is stopped to save fuel and reduce overall vehicle emissions.

Prognostics

Eliminates unnecessary oil and filter changes by monitoring various operating parameters to determine and alert when a specific maintenance function is required.

Acceleration Rate Management

Mitigates aggressive driving by controlling engine torque based on the vehicle's grade and load.

DynActive® Shifting

New innovative shift scheduling uses an algorithm to choose the most efficient shift point, based on specs, vehicle and environmental parameters.

Physical Description

Base Model	Vocation	Length ¹	Depth ² w/Deep Oil Pan/Sump	Depth ² w/Shallow Oil Pan/Sump	Dry Weight
		in (mm)	in (mm)	in (mm)	lbs (kg)
B 210/B 220/B 295					
SAE No. 3 mounting	BUS	28.01 (711.4)	11.22 (285.1)	10.71 (272.0)	323 (146.5)
SAE No. 2 mounting	BUS	28.39 (721.1)	11.22 (285.1)	10.71 (272.0)	323 (146.5)
B 300/B 400/ B 3400 xFE					
Basic model	BUS	28.3 (718.7)	12.90 (327.7)	11.14 (283.0)	535 (243)
With PTO only	BUS	32.5 (825.4)	12.90 (327.7)	11.14 (283.0)	575 (261)
With retarder only	BUS	28.29 (718.5)	12.90 (327.7)	11.14 (283.0)	615 (279)
With PTO + retarder	BUS	32.49 (825.4)	12.90 (327.7)	11.14 (283.0)	655 (298)
B 500					
Basic model	BUS	30.54 (775.8)	14.75 (374.7)	13.29 (337.6)	831 (377)
With PTO only	BUS	33.41 (848.8)	14.75 (374.7)	13.29 (337.6)	893 (405)
With retarder only	BUS	30.54 (775.8)	14.75 (374.7)	13.29 (337.6)	906 (411)
With PTO + retarder	BUS	33.41 (848.8)	14.75 (374.7)	13.29 (337.6)	968 (439)

1 Length measured from flywheel housing to end of output shaft. 2 Depth measured below transmission centerline.



Notes



A World of Support

From our headquarters in Indianapolis, Indiana, USA, to our plants in Hungary and India, to approximately 1,500 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™.

Our Promise

Provide the most reliable and valued propulsion solutions in the world to enable our customers to work more efficiently.

- Trusted by more than 300 OEMs worldwide
- A strong history of innovation with more than 1,000 patents
- Improved fuel economy with FuelSense® 2.0 with DynActive® Shifting technology
- Over seven million fully automatic transmissions delivered

*One Allison Way
Indianapolis, Indiana USA 46222-3271*

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allisontransmission.com

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