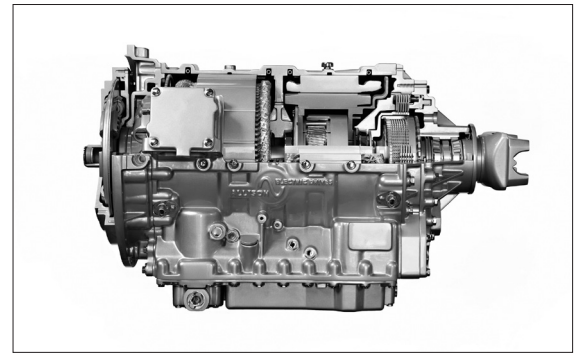




Allison H 40 EP and H 50 EP Specification



Allison's Transit History

In 1947, Allison Transmission revolutionized the transit industry with the introduction of its first bus transmission. Over 60 years later, Allison continues its leadership in the transit and coach industry with a full complement of Allison fully automatic transmissions and hybrid propulsion systems.

Allison's journey in hybrid technology development began in the 1980s and accelerated in 2001 with the pivotal decision to pursue the two-mode split parallel hybrid path. The technology operates automatically as a series or parallel hybrid. The efficiency gains over other technologies enabled this hybrid architecture to perform in transit buses and coaches.

Allison provided 36 preview hybrid bus models to select transit agencies to evaluate and provide critical feedback before we began commercial production.

Armed with this field knowledge, Allison began commercial production in October 2003. King County Metro in Seattle, Washington, immediately ordered 213 Allison Hybrid-equipped 60-foot articulated buses for delivery in 2004. Their fleet now has over 300 Allison Hybrid buses providing reliable daily service.

Allison has become the world's largest hybrid producer for heavyduty transit buses. In 2009, we achieved two major milestones by shipping 1,349 systems in one year and 205 systems in a single month. Allison has now produced and shipped over 4,000 hybrid systems from our dedicated hybrid factory in Indianapolis, Indiana.

RATINGS

| Model | Rated Input Torque N•m (lb-ft) | Continuous Kw (hp) | Rated Input Speed rpm | Vocations |
|---------|-----------------------------------|-----------------------|--------------------------|------------------------|
| H 40 EP | 1234 (910) | 209 (280) | 2300 | Transit Bus |
| H 50 EP | 1424 (1050) | 246 (330) | 2300 | Articulated Bus, Coach |

PHYSICAL DESCRIPTION

| | Length | Width | Height from centerline to sump | Dry Weight |
|---|---|----------------|--------------------------------|------------------|
| Allison H 40 EP and H 50 EP | 813 mm (32 in) | 432 mm (17 in) | 305 mm (12 in) | 417 kg (919 lbs) |
| Energy Storage System 2 (ESS2) | Full regenerative braking recovery from 50 mph Weight: 970 lbs (440 kg) | | | |
| Dual Power Inverter Module 2 (DPIM2) | 430-900 VDC 160 kW continuous 3-phase AC Weight: 165 lbs (75 kg) | | | |
| System Controller | Allison Fourth Generation Electronic Controls Weight: 2.46 lbs (1.12 kg) | | | |
| Performance | Typical acceleration power with energy storage: H 40 EP Drive Unit – 350 hp (261 kW) H 50 EP Drive Unit – 400 hp (298 kW) | | | |
| Available Engine Options | Cummins ISB – 280 hp (209 kW) Cummins ISL – 280 hp (209 kW) or 330 hp (264 kW) | | | |