

H-Series

The ideal power for turboprop aircraft

H-Series is a family of turboprop engines by Avio Aero - part of GE Aerospace - offering a customized range of ratings and performance for commuters, private and agricultural aircraft as well as aerobatic trainers. From skydiving to medical support and cargo transport, the engine thrives in rugged conditions that require mission readiness, short takeoffs, weight variability and safe operation: in the hottest deserts, over the highest peaks and across the most remote archipelagos, H-Series is renowned for its reliability. Its standard configuration allows a seamless, low-investment integration into a variety of airframe types.

The H-Series is a two-shaft, reverse flow engine with a free turbine. The engine has an axial compressor and compressor turbine featuring 3D geometry design. Fuel is distributed to the chamber via the slinger ring combustor architecture, which simplifies maintenance and eliminates the need for recurrent fuel nozzle inspections. The propulsion section is powered by a single-stage turbine driving a two-stage planetary gearbox.

Electronic Controls

GE's H-Series engine is available with new, first-in-class Electronic Engine and Propeller Control (EEPC). The EEPC system, featuring fully integrated engine and propeller operations, provides safer operations.

An Aerobatic version of H-Series engine, with a unique multi attitude lubrification system designed to enable flight with zero gravity and strengthened structure for demanding aerobatic maneuvers is undergoing final development tests.





Engine features

- 21+ million fight hours
- Low maintenance operations
- No hot section inspection and no fuel nozzles required
- Reliable performance in harsh environments
- Optimized aerodesign and features for reduced SFC
- Modern, proven GE Aerospace materials for longer life

Specifications (sea level, standard day)

Thermodynamic power (THP)		1040
Propeller speed (RPM)		2080 or 1950
Propeller rotation		CW from rear
Maximum operating envelope	(depending on installation)	Up to 32 000 ft
Basic TBO interval		Up to 4000 hours
HSI interval/fuel nozzle inspection		None
Control system		Hydro mechanical fuel control or Electronic Engine and Propeller Control
Fuel		Jet A, Jet A1, SAF
Weight (basic dry mass)		177 kg (390 lb)
Dimensions (I, w, h)		1670 mm (66"), 560 mm (22"), 580 mm (23")

Optional services

- Prepaid Maintenance Program available
- Remote diagnostics and special mission accessories including Vibration Monitoring System (for all Aerobatic models)





Engine models H75 550 or 750 SHP H85 850 SHP H80 800 SHP OAT (°C) OAT (°C) OAT (°C) -40 20 50 -40 20 50 -40 -10 20 50 -10 -10 900 900 900 Shaft hoursepower (SHP) 850 850 850 800 800 800 750 750 750 700 700 700 650 650 650 600 600 600 550 550 -40 550 -40 40 0 40 50 120 0 40 50 120 0 40 50 120 **OAT** (°F) **OAT** (°F) **OAT** (° F) Sea level - 10,000 ft

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