

AE 3007 turbofan



The AE 3007 powers present-day reconnaissance aircraft and the unmanned aerial vehicles of the future providing fuel efficiency and electrical power.

Proven power

Initially developed to create a turbofan member of the AE common core family for the growing regional jet and medium/large business jet markets, further development created a growth version of military aircraft applications. To date, the AE 3007 has surpassed 74 million engine flight hours across defense and civil fleets.

The AE 3007 turbofan core is derived from the AE 1107C-Liberty engine and is in the 8,000 lbf thrust class. The AE 3007 turbofan engine is a high bypass, two shaft engine.

The engine features a wide-chord single-stage low pressure (LP) compressor, 14-stage high pressure (HP) compressor, an effusion-cooled annular combustor, two stage high pressure (HP) turbine and a three stage low pressure (LP) turbine.

Thrust lbf: AE 3007H 9,500 (42) AE 3007A1E 8,895 (40)
AE 3007A1P 8,338 (37) AE 3007A1 7,580 (33) AE 3007A1/3 7,580 (33)

Bypass ratio 5.0 | **Pressure ratio** 23 | **Length in (m)** 115.08 (2.92)
Fan diameter in (m) 38.5 (0.98) | **Basic weight lb (Kg)** 1,644 (746)
Compressor 1LP, 14HP | **Turbine** 2HP, 2LP

Powering the Northrop Grumman RQ-4A Global Hawk

- A single AE 3007H engine allows the Northrop Grumman R-Q4A Global Hawk to fly at over 65,000ft.
- It provides the fuel efficiency required and the electrical power necessary to fly surveillance missions over 30 hours.
- The system has already proven itself over the skies of Afghanistan and Iraq.

A high-altitude, unmanned aircraft

- The Northrop Grumman Triton is also powered by a single Rolls-Royce AE 3007H engine.
- The AE 3007H provides the power to fly surveillance missions up to 24 hours at altitudes above 50,000 ft.
- The Triton is specially designed to allow a range of 7,400 nautical miles; a long range enabled by the fuel efficiency and electrical power of the AE 3007.

Powering the Embraer 145

- Two AE 3007A1P engines power the Embraer 145 Special Version aircraft used for intelligence, reconnaissance and surveillance missions.

