



## Allison 501-KB7

### Features

**5 MW Power class**

**32.7% Thermal efficiency**

- **Addition of single stage compressor boost module**
- **Core engine commonality with 501-K family**
- **30% increased exhaust flow**
- **Standard effusion cooled combustion liners**
- **DLE combustion system available**
- **Natural gas, liquid and dual fuel configurations**
- **Mid-BTU gas options**
- **Easily maintained modular design**
- **Competitive operating costs**
- **Single shaft cold end drive**

### Description

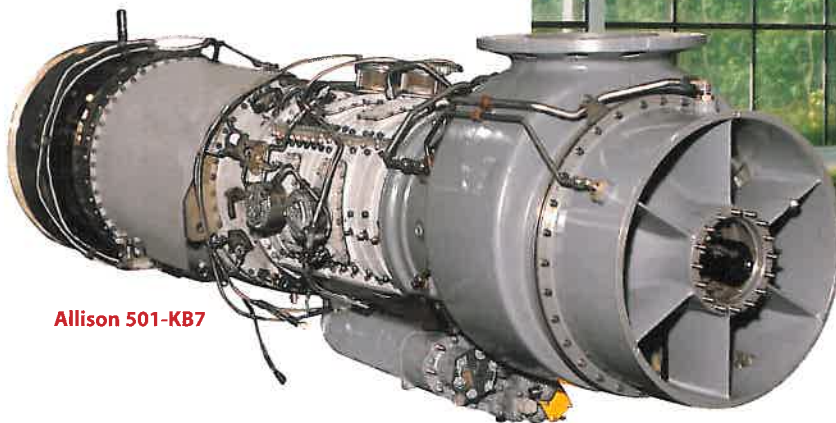
The Allison 501-KB7 is the highest horsepower version (simple cycle) of the 501-K series of engines. A single stage boost compressor, improved vane cooling, higher strength turbine blades and many other enhancements have been incorporated for improved performance, durability and operating cost.

The aero-derivative design of the 501-K series engine provides a lightweight, modular product that helps lower operating costs through improved fuel consumption, extended hot section life and ease of maintenance.

Rolls-Royce knows there is more to customer satisfaction than manufacturing a quality gas turbine engine. Beginning with the finest designs, the most advanced manufacturing techniques and rigid verification testing, our team continues to serve our customers with a global network of support. These power products are backed by this comprehensive service worldwide.



**Industrial power**



**Allison 501-KB7**

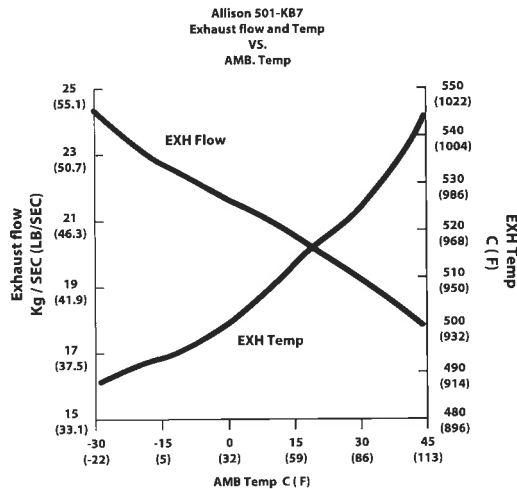
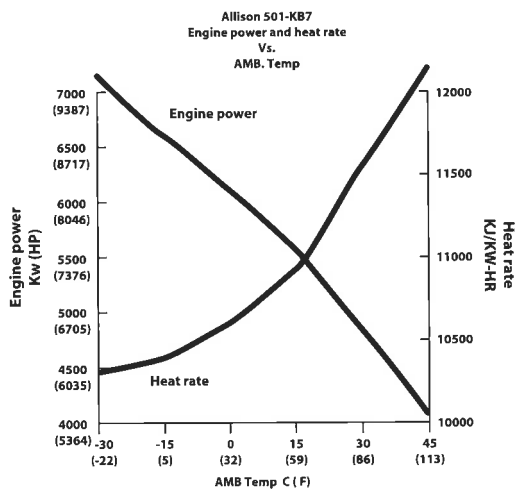
## Industrial Gas Turbine Engine Specification\*

Description	Allison 501-KB5S	Allison 501-KH **	Allison 501-KB7	Allison 501-KC5	Allison 501-KC7	Allison 601-K9	Allison 601-K11
Primary application	Genset	Genset	Genset	Mech. Drive	Mech. Drive	Genset Mech. Drive	Genset Mech. Drive
Fuel type (rated)	Gas	Gas	Gas	Gas	Gas	Gas	Gas
Shaft power, kw	4101	6750	5518	4101	5369	6711	8202
hp	5500	9050	7400	5500	7200	9000	11000
Heat rate, Kj/kw-hr	11780	8530	10992	12018	11226	10710	10395
Btu/hp-hr	8325	6028	7770	8495	7935	7570	7350
SFC, lbs/hp-hr	0.407	0.300	0.380	0.416	0.389	0.370	0.360
Exhaust flow, kg/sec	15.4	18.4	20.8	15.5	20.8	24.4	30.8
lb/sec	33.9	40.6	45.8	34.2	45.8	53.9	67.9
Exhaust temp., deg. °C	559	529	513	571	514	515	479
deg. °F	1040	982	956	1060	957	959	894
Output speed, (rpm)	14200	14600	14600	13600	13600	11500	11500

\* Nominal engine performance, ISO, no losses, gaseous fuel 20,400 BTU/lb

\*\* Steam injection: 2.72 Kg/sec. @ 482°C (6.0 lb/sec @ 900°F)

### Allison 501-KB7 Gas fuel - No losses - 14,600 (rpm)



**Rolls-Royce®**

**Rolls-Royce Allison**  
 P.O. Box 420  
 Indianapolis, Indiana  
 46206-0420 USA  
 Phone: (317) 230-4151  
 Fax: (317) 230-2900  
 www.rolls-royce.com

While this information is provided in good faith, no warranty or representation is given concerning such information, which must not be taken as establishing any contractual or other commitment binding upon Rolls-Royce Allison, its parent company or any of its subsidiary or associated companies.