AL-41F-1S

The AL-41F-1S (article 117S) aircraft engine is a modular two-shaft turbofan engine with thrust vector control and integrated digital control.

The engine is installed on Su-35-type aircraft.

As for geometry and attachment points on the aircraft, the 117S engine conforms to its predecessors, the AL-31F and AL-31FP engines. This makes it possible to use the 117S engine for upgrading the entire fleet of previously built Su-27-/Su-30-type aircraft, with minor engine nacelle and equipment modifications.

Engine performance enhancement has been achieved through the use of a new low-pressure compressor with increased air flow and efficiency and a new turbine with an improved blade cooling system.

Main characteristics:

- Special power conditions, kgf: 14500-2%
- Full afterburner military thrust, kgf: 14000-2%
- Max military thrust (w/o afterburning), kgf: 8800±2%
- Specific fuel consumption (full afterburner military thrust setting), kg/(kgf·h): ≤1,78+0,04
- Specific fuel consumption (max military thrust setting), kg/(kgf·h): ≤0,77+0,02
- Turbine inlet temperature, °K: 1745
- Length, m: 4,942
- Air inlet diameter, m: 0,932
- Dry weight, kg: ≤1604+2%
- Engine acceleration time (from idling to max military thrust setting), s: 3-5