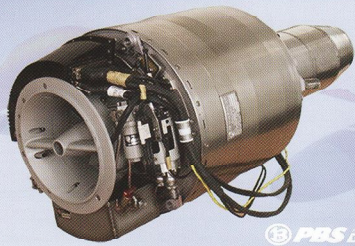


Turbojet engine TJ 100A



The turbojet engine TJ 100A is improved modification of TJ 100 engine designed for UAV, UCAV, experimental aircraft and motorized gliders.

MAIN FEATURES:

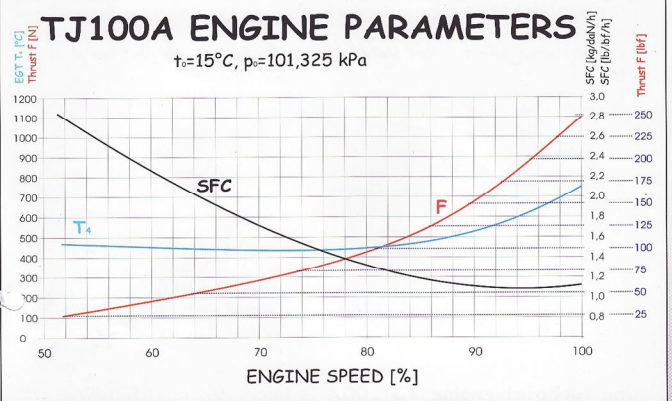
| | | |
|--------------------------------|---------------|-------------------------------|
| Max. thrust | 1100 N | 247 lbf |
| Min. specific fuel consumption | 1,09 kg/daN/h | 1,09 lb/lbf/h |
| Electrical power output (28 V) | | 750 W |
| Max. diameter | 272 mm | 10,7 in |
| Length | 625 mm | 24,6 in |
| Dry weight (with accessories) | 20,6 kg | 45,4 lb |
| Flight envelope | - altitude | 0 to 8 000 m / 0 to 26 000 ft |
| | - speed | < Mach 0,8 |
| Start envelope | - altitude | 0 to 4 000 m / 0 to 13 000 ft |
| | - speed | < Mach 0,4 |
| | - temperature | -30 to +50 °C / -22 to 122 °F |
| Fuel | | JET-A1, JP5, JP8 |
| Oil | | 3 cST or 5 cSt |

COMPLETION:

Standard: TJ100 including Startgenerator, Fuel-oil System, Control System, Cables, Ignition Unit
 Optional: Fuel Stop Valve, Fuel Filter 50 µm, Fairing, Monitoring Software, Converter CAN-RS232

TJ100A ENGINE PARAMETERS

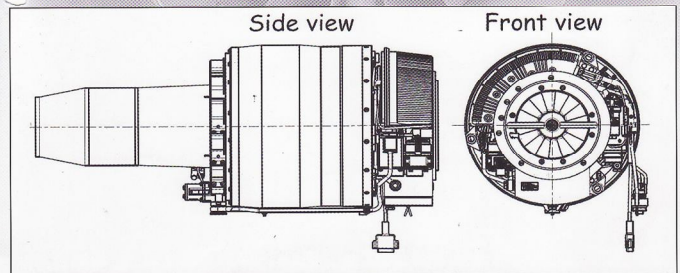
$t_c=15^{\circ}\text{C}$, $p_c=101,325\text{ kPa}$



The engine is characterized by compact design, excellent thrust/weight ratio and low fuel consumption at its power category.

The conception of this engine is classical - with radial compressor and annular combustion chamber, axial turbine and fixed output nozzle.

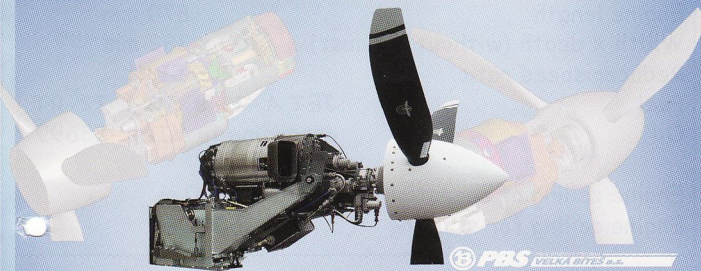
Integrated starter - generator is enabling the reliable starting by battery 24V, electricity supply to board net and engine cooling after stop. Digital control box assure the engine control and diagnostics.



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Turboprop Engine TP 100



Newly developer turboprop engine TP 100 with output 180 kW is the continuation of development of small turbojet engine TJ100, which have the decisive role of gas generator in new application. It is driving the free turbine and subsequently over reducer also three blades propeller AV723 type with constant speed.

The main advantages of the engine are small installation dimension, low weight and high static thrust.

Engine parameters:

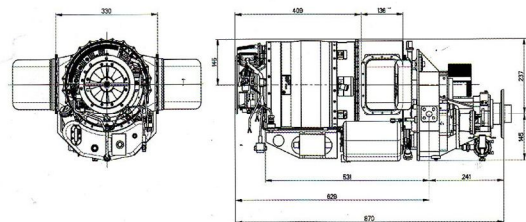
| | | |
|-----------------------------|-------------------------------------|--|
| | $h=0\text{m}$, $v_c=0\text{ km/h}$ | $h=3000\text{m}$, $v_c=350\text{ km/h}$ |
| Power shaft | 180 kW | 140 kW |
| Thrust with propeller AV723 | 5394 N | 1357 N |
| Residual thrust | 259 N | 74 N |
| Propeller speed | 2158 rpm | |

Other parameters:

| | |
|---------------------------------|----------------------------|
| Weight (dry) | 55 kg |
| Engine length | 870 mm |
| Width x depth (without exhaust) | 330 x 382 mm |
| Reducer speed ratio | 20.751 : 1 |
| Fuel | JET A, A1, B, TS-1, T2, RT |
| Oil | according to MIL-L-23699 |
| Engine ceiling of operation | 9000 m |
| Engine ceiling for starting | 6000 m |

The engine allows the installation in both, pusher and traction mode, at current configuration is designed for experimental aircraft or UAV.

The engine is two shafted, with modular conception. The engine gearbox has two gear stages with split power transmission, first and second gear stages are connected by torsion shaft. The design is allowing the installation of high speed generator with output 3,3 kVA.



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