Turboprop Engine TP 100

Newly developed turboprop engine TP 100 with output shaft power 180 kW is the continuation of development of small turbojet engine TJ100, which has the core role of gas generator in this new application. Exhaust gases from gas generator drives single stage power turbine, power is subsequently transmitted through gearbox on three blades propeller AV723 type with constant speed.

Main advantages of the engine are small installation dimensions, low weight and high static thrust.

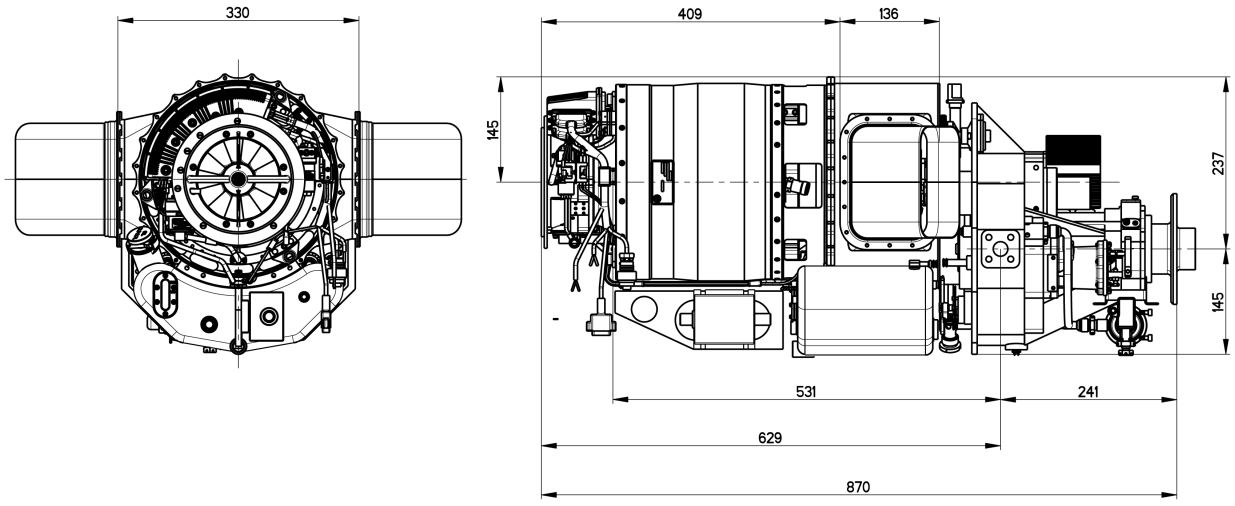
Engine parameters:

	h=0m, v_0= 0 km/h	h=3000m, v= 350 km/h
Output shaft power	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 can be installed in both pusher and tractor mode. Shown pusher configuration is designed for experimental aircraft or UAV. The engine is modular conception with gas generator, power turbine and gearbox. The gearbox has two gear stages with split power transmission, first and second gear stage is connected by torsion shaft. The gearbox design offers the possibility to install a high speed electric generator with output power 3,3kVA.



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