

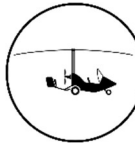


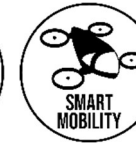



SPIRIT 160 GEARED PSRU




Applicability

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UAV
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SMART MOBILITY
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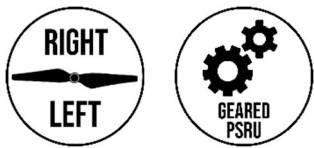
AIRBOAT
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HOVERCRAFT

Engine data

Type	4 cylinder boxer
Displacement [cm ³ (in ³)]	2545 (155)
Weight [Kg (lbs)]	79 (174) dry (without accessories)
Dimension L x W x H [mm (in)]	672 x 762 x 419 (26.46 x 30 x 16.5)
Stroke X Bore [mm (in)]	81 x 100 (3.18 x 3.93)
Compression Rate	10.1 ÷ 1
Thermodynamic Cycle	4 Stroke fuel (Otto cycle)
Fuel	Mo.GAS min. AKI 90, R.O.N. 95, M.O.N. 85, LL100
Cooling System	Liquid with mechanical pump
Lubrication	Semi-dry sump, pressure oil feed assisted with internal pump
Timing System	2 valves per cylinder with S.O.H.C. (Single Over Head Camshaft)
Timing Driving System	Gear + chain with automatic chain tensioner

Transmission



Type	Gearbox with helical gear (separate lubrication)
Transmission ratio	1 ÷ 1.958
Max Propeller Speed [rpm]	2400
Damper	Elasto-dissipative with Active Damping Control (A.D.C)
Optional	Integrated constant speed hydraulic governor

Electric

Generator	Permanent magnet, oil cooled, 300W (12.5V-24A)
Starter	Electric starter 0.65kW with anti-kickback clutch
F.R.I.S. (Full Redundancy Injector System)	ECU with dual injection and ignition; altitude and temperature compensation; Limp Home strategy
CAN Data Transmission	CAN Aerospace protocol

Performance

Max Power [Hp (kW)]	160 (119.3) @ 4650rpm
Max Torque [Nm (Ft-lb)]	255 (188.1) @ 3900rpm
Max Continuous Power [Hp (kW)]	137 (102.1) @ 4200rpm
Max Engine Speed [rpm]	4700
Power/Weight [Hp/Kg (Hp/lbs)]	2.02 (0.92)
Fuel Cons. [L/h (USgal/h)]	19.3 (5.1) @ 75Hp
TBO [h]	1800