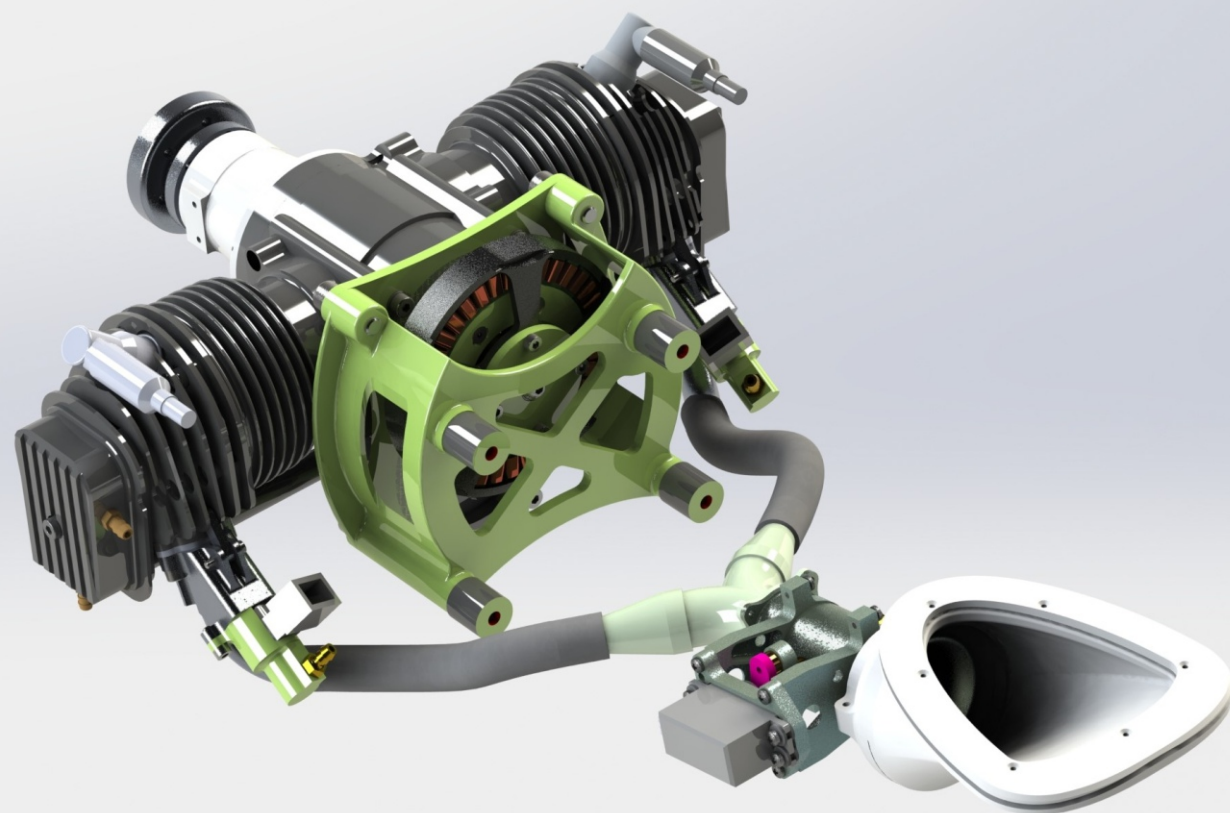


Engine UAV-85



- 4-stroke gasoline engine*
- The engine is equipped with a fuel injection system
- 95-octane petrol + Valvoline 2T SynPower 30:1
- Maximum engine power: 5.5 HP (4 kW)
- Nominal engine power: 4.2 HP (3 kW)
- Fuel consumption: 320 g/kWh
- Air-cooling
- Equipped with generator, 27V 3-phase AC motor. Generator power 200W up to 4800 rpm
- Total engine weight with ECU (engine control unit): 5.5 kg
- Maximum CHT operating temperature: 165 °C

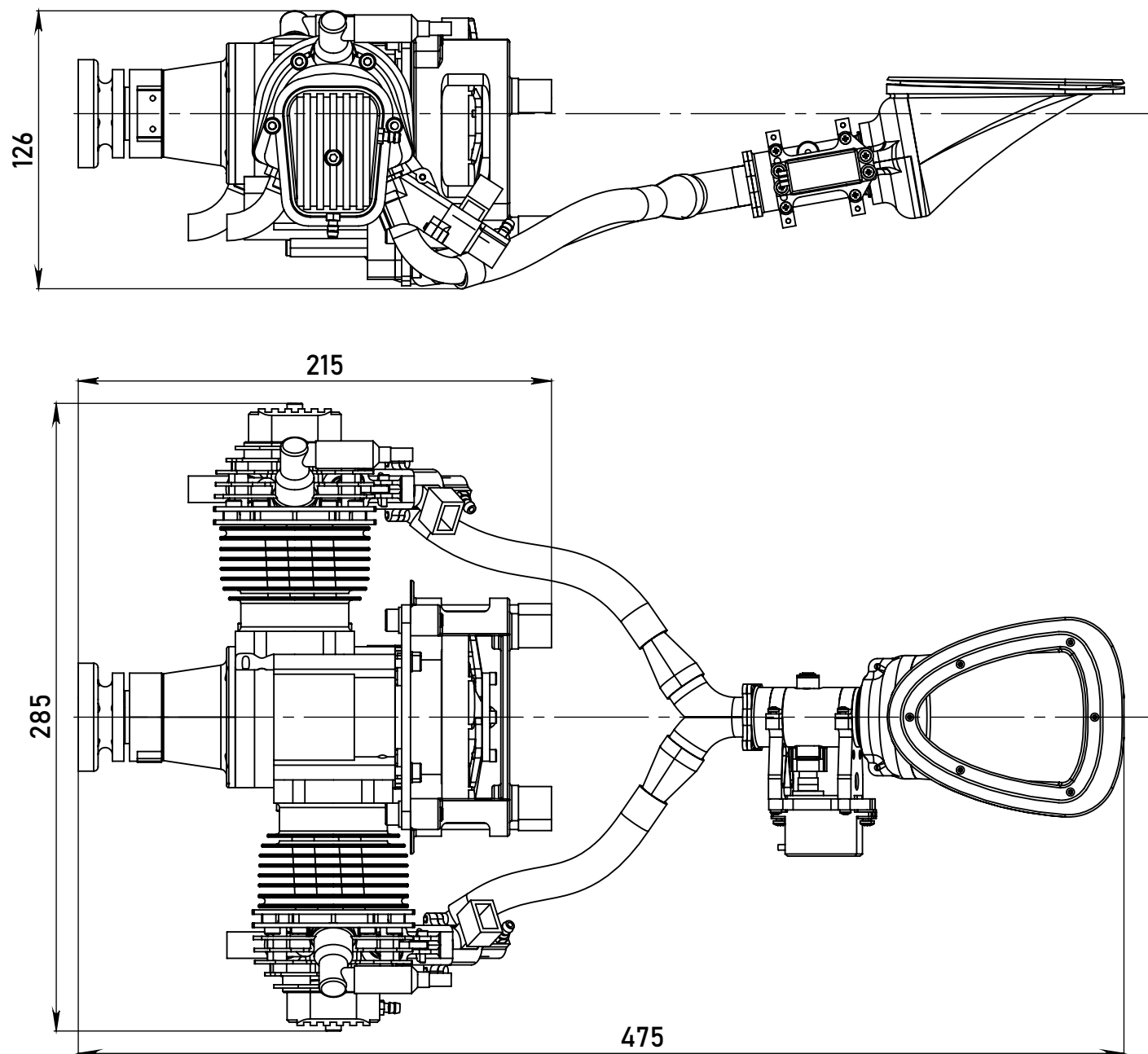


* based on FM 85 – B2 – FS engine
<https://vrtule-fiala.cz/en/for-model-planes/fm-85-b2-fs-103.html>



www.uavos.com

General Dimensions

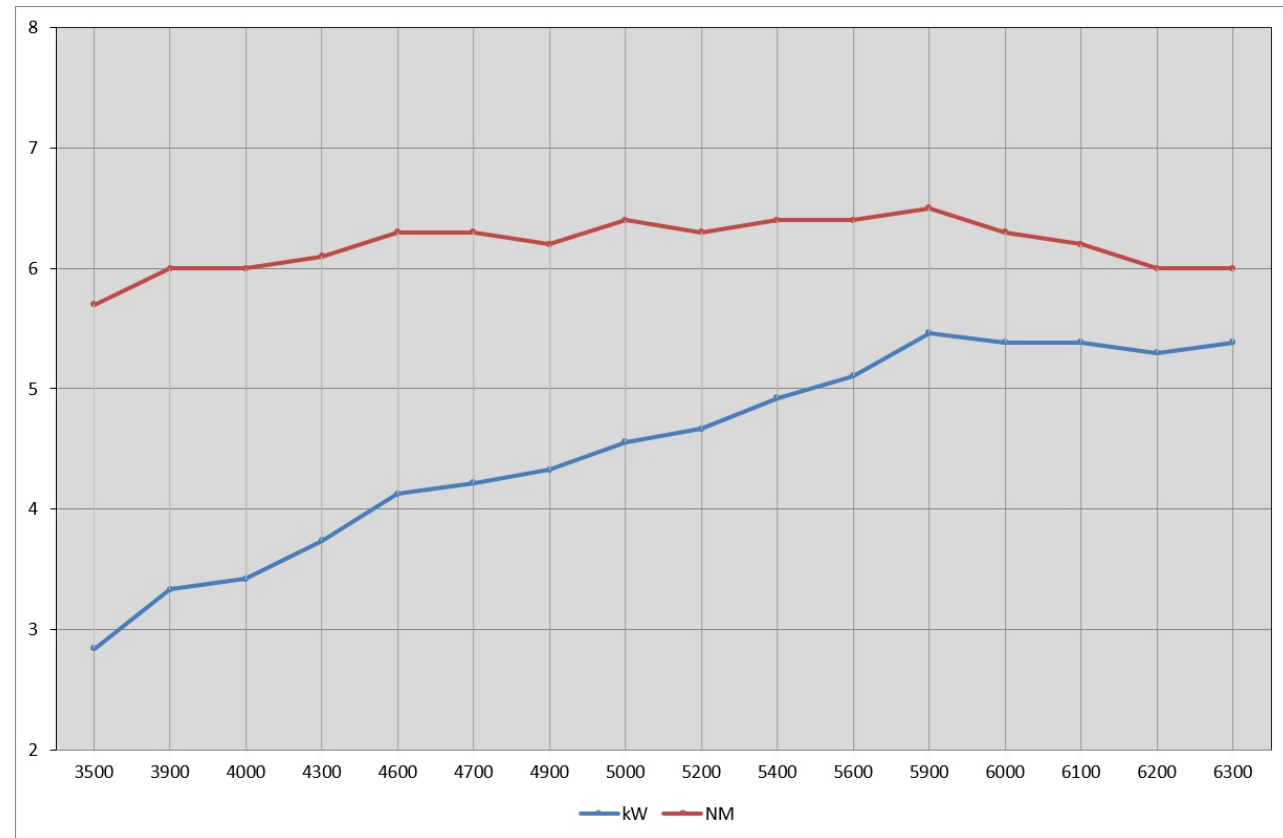


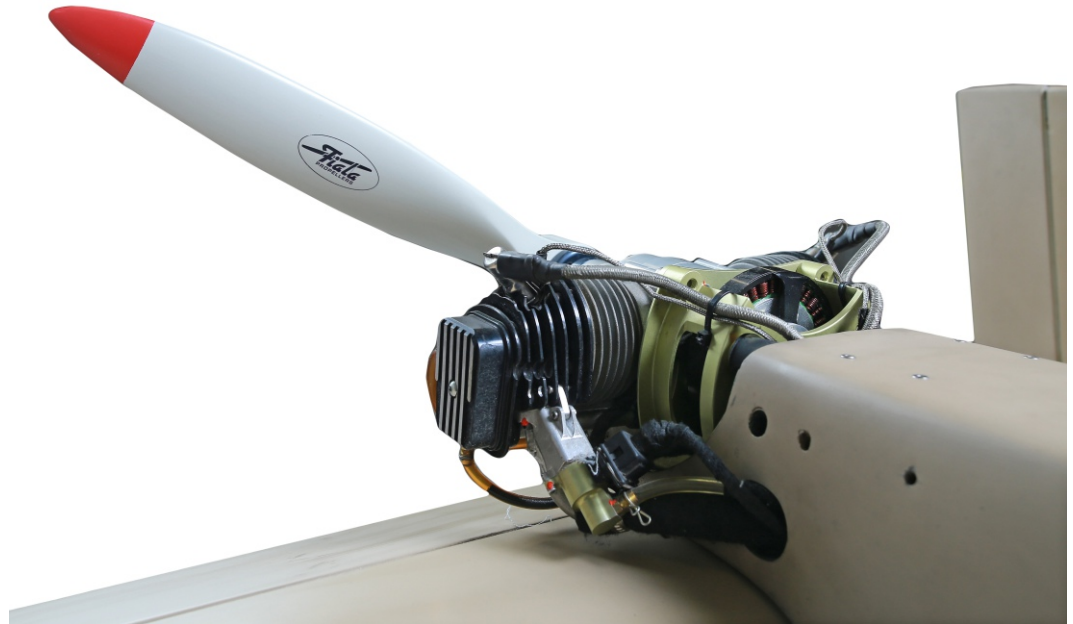
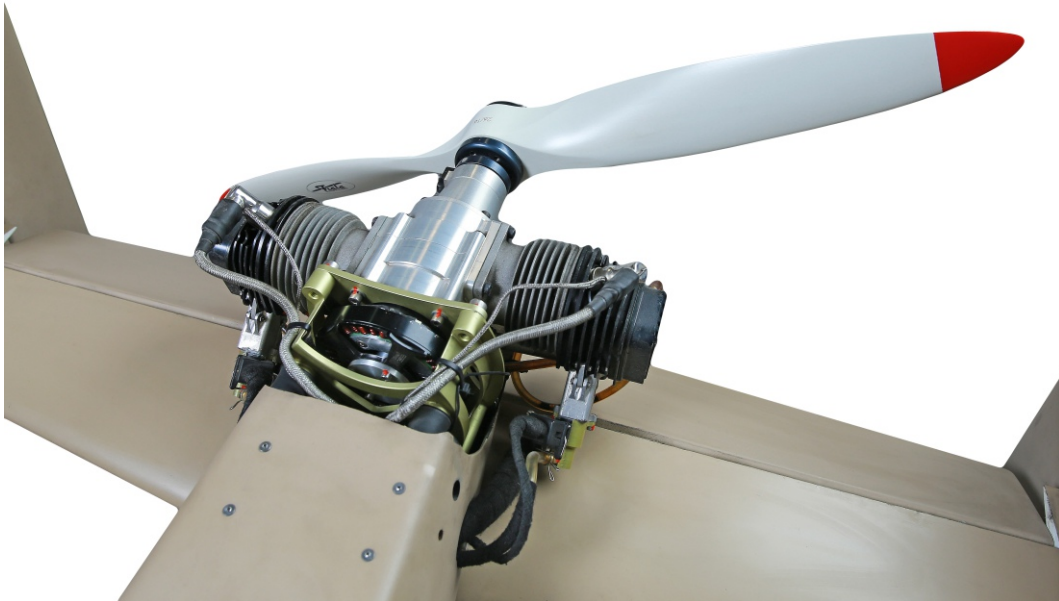
Power vs Torque



Power to Torque relationship plot (OAT 15 °C, Atm.pressure 1013 mbar).

Power HP	Power KW		RPM	Torque NM
2.84	2.09		3500	5.7
3.33	2.45		3900	6
3.42	2.51		4000	6
3.74	2.75		4300	6.1
4.13	3.03		4600	6.3
4.22	3.10		4700	6.3
4.33	3.18		4900	6.2
4.56	3.35		5000	6.4
4.67	3.43		5200	6.3
4.92	3.62		5400	6.4
5.10	3.75		5600	6.4
5.46	4.02		5900	6.5
5.38	3.96		6000	6.3
5.39	3.96		6100	6.2
5.30	3.90		6200	6
5.38	3.96		6300	6





Engine Control Unit



Engine is equipped with Engine Control Unit (ECU) UV01.6401.06.63.00

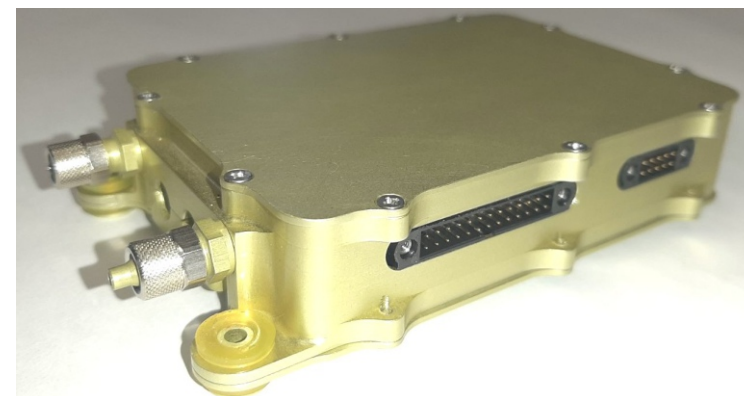
This unit is intended for processing information from sensors:

- calculates the optimal amount of the fuel input;
- determines the moment of ignition (based on the operating conditions of the engine and its mode).

The unit is equipped with a digital data line, which allows the flight controller to transmit sensor readings, as well as receive ignition commands and gas levels.

The main functions of the Engine Control Unit (ECU) UV01.6401.06.63.00:

- adjustment of the amount of fuel input;
- ignition timing adjustment;
- power supply control of the fuel pump;
- temperature measurements EGTx2, CHTx2, AT;
- the formation of control pulses of the gas servo drive;
- data exchange with a software navigation system.



The electrical characteristics of the engine control unit are shown in table below.

Supply voltage	12 ± 0.5 V
Consumption current (no more) (excluding nozzle current and fuel pump)	0.5 A
Ambient temperature	from (– 40°C) to +60°C
Relative humidity	up to 98% at +25°C
Data transmission channels	CAN bus, discrete signal management