

System Specifications



5.52 Kg

Maximal Thrust



20"

Propeller Diameter



22.2 V

Voltage



401 g

Mass

Motor

Name:	EC 69 flat UAV
Part number:	688848
Manufacturer:	Maxon
KV [RPM/V]:	342
Mass [g]:	269
Max continuous Current [A]:	41.8
Max peak Current [A]:	60
Contact:	aerospace@maxongroup.com

ESC

Name:	UAV-ESC 52/30
Part number:	654541
Manufacturer:	Maxon
Mass [g]:	102
Max continuous Current [A]:	30
Max peak Current [A]:	90
Voltage [V]:	9-52.2
Contact:	aerospace@maxongroup.com

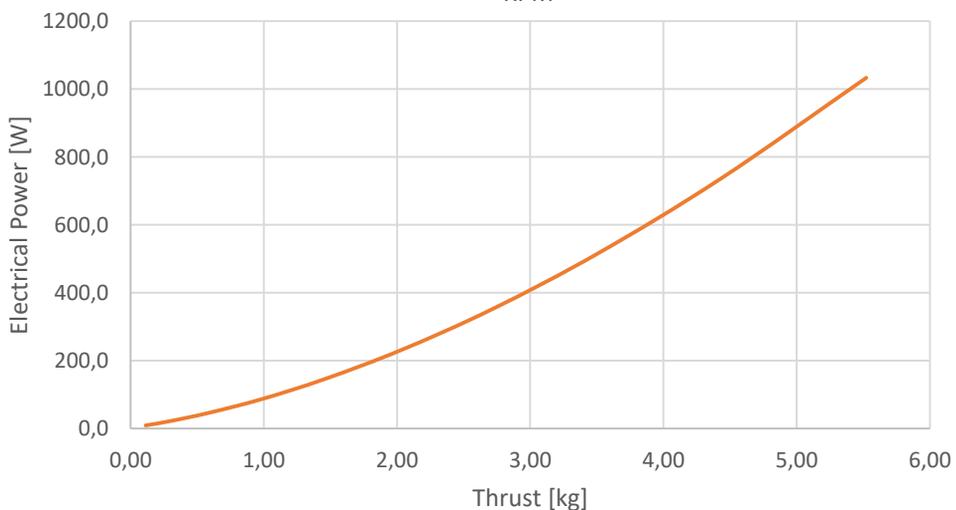
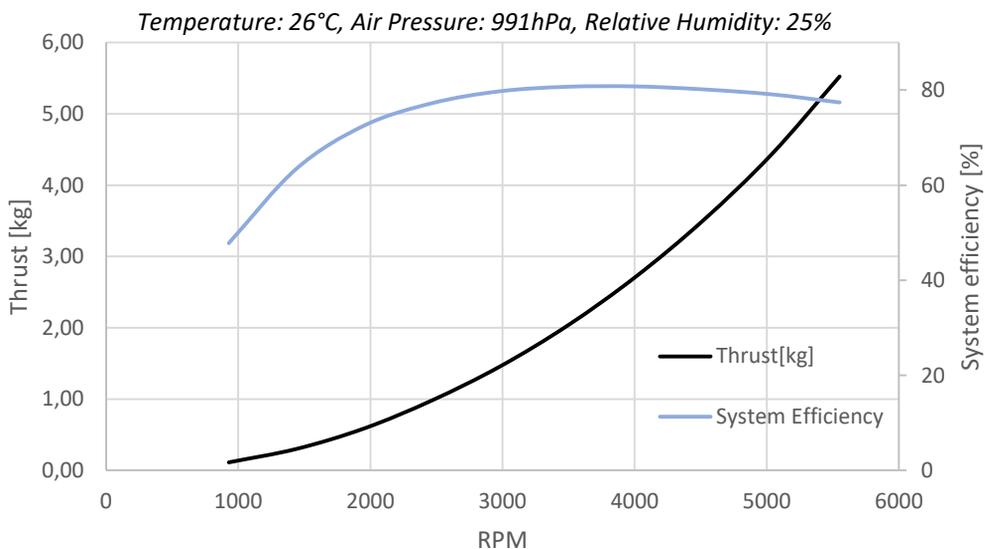
Propeller

Name:	20x6.7
Manufacturer:	Mejzlik
Diameter ["]:	20
Pitch ["]:	6.7
Mass [g]:	30
Contact:	info@mejzlik.eu

Measurements

ID 0052

Throttle [%] ^[1]	Rotational Speed [RPM]	Thrust [kg]	Torque [Nm]	Voltage [V]	Current [A]	Mechanical Power [W]	Electrical Power [W]	System Efficiency [%] ^[2]
14	929	0.11	0.05	22.3	0.4	4.5	9.4	47.8
20	1442	0.30	0.09	22.3	1.0	14.3	22.5	63.5
27	1956	0.59	0.17	22.2	2.1	33.9	46.7	72.6
33	2470	0.98	0.26	22.2	3.9	67.1	86.9	77.3
39	2983	1.46	0.37	22.2	6.6	116.7	146.3	79.8
45	3497	2.04	0.51	22.2	10.5	187.4	232.2	80.7
52	4011	2.72	0.68	22.1	15.9	284.7	352.5	80.8
58	4525	3.51	0.87	22.0	23.5	414.4	517.2	80.1
64	5038	4.43	1.10	21.9	33.6	582.8	736.8	79.1
72	5552	5.52	1.38	21.8	47.4	799.7	1033.1	77.4



^[1]Depends on Maxon ESC parameter settings. Throttle to RPM ratio can be configured individually and does not necessarily correspond to PWM duty cycle.

^[2]Includes motor efficiency, controller efficiency, wire and connectors losses.