

Professional Propulsion Systems

ID:0063

System Specifications



7.82 Kg

Maximal Thrust



24"

Propeller
Diameter



44.4 V

Voltage



427 g

Mass

Motor

Name:	EC 69 flat UAV
Part number:	725770
Manufacturer:	Maxon
KV [RPM/V]:	159
Mass [g]:	269
Max continuous Current [A]:	21.2
Max peak Current [A]:	45
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

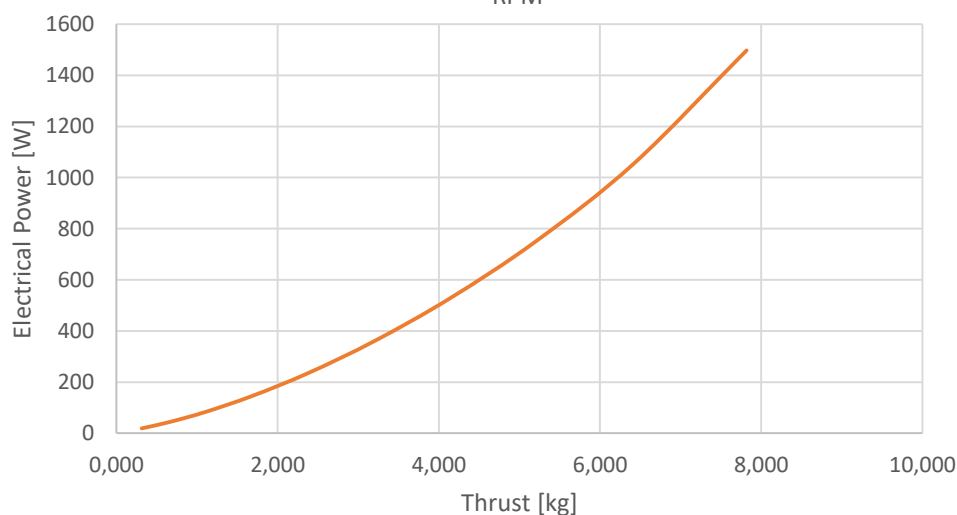
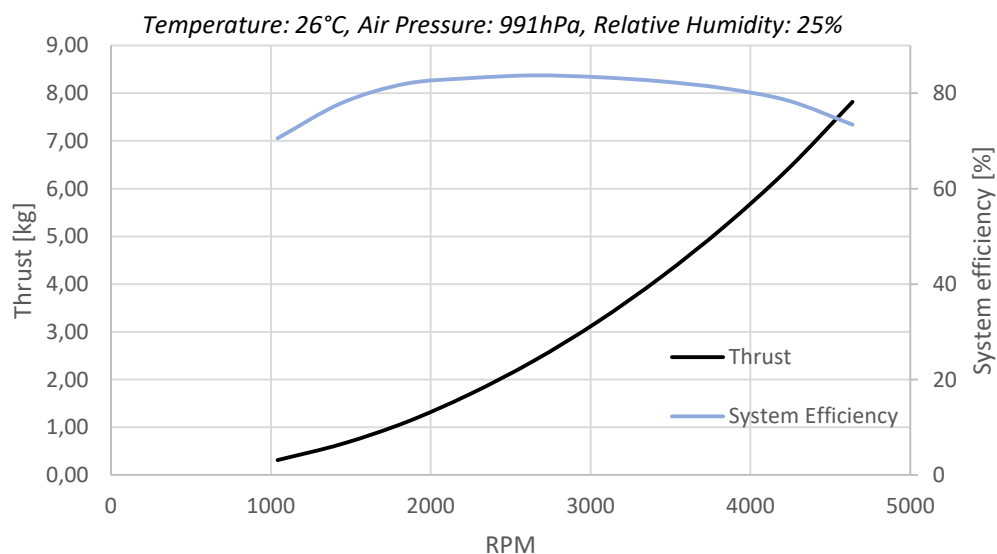
Propeller

Name:	24x8.1
Manufacturer:	Mejzlik
Diameter ["]:	24
Pitch ["]:	8.1
Mass [g]:	56
Contact:	info@mejzlik.eu

Measurements

ID 0063

Throttle [%] ^[1]	Rotational Speed [RPM]	Thrust [kg]	Torque [Nm]	Voltage [V]	Current [A]	Mechanical Power [W]	Electrical Power [W]	System Efficiency [%] ^[2]
16	1043	0.31	0.12	44.5	0.4	13.4	19.0	70.6
20	1442	0.65	0.22	44.5	1.0	33.6	43.1	77.9
25	1842	1.10	0.35	44.5	1.9	68.0	82.9	82.0
30	2241	1.69	0.52	44.5	3.3	121.6	146.2	83.2
35	2641	2.38	0.71	44.5	5.3	197.7	236.0	83.7
40	3040	3.20	0.94	44.5	8.1	300.8	360.8	83.4
45	3440	4.15	1.21	44.4	11.9	436.3	529.0	82.5
50	3839	5.21	1.52	44.4	17.0	609.8	752.8	81.0
55	4239	6.43	1.87	44.3	23.8	828.2	1056.0	78.4
60	4639	7.82	2.26	44.2	33.9	1099.4	1497.4	73.4



^[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.