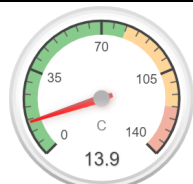


all data without guarantee - Accuracy: +/-10%

propCalc - Propeller Calculator News (index.htm#news) | Toolbox (index.htm#toolbox) | Easy View (motorcalc_mobile.php) | Help (calcinclude/help/propcalchelp.htm) | Submit Specs (calcmember/submitmotor.htm) | Language: english

General	Model Weight: 4500 g <input type="text"/> incl. Drive <input type="checkbox"/> 158.7 oz <input type="text"/>	# of Motors: <input type="text"/> 2 (on same Battery)	Wingspan: <input type="text"/> 2400 mm <input type="text"/> 94.49 inch	Wing Area: <input type="text"/> 114.4 dm ² <input type="text"/> 1773.2 in ²	Drag: <input type="text"/> simplified <input type="checkbox"/> <input type="text"/> 0.03 Cd	Field Elevation: <input type="text"/> 3 m.ASL <input type="text"/> 10 ft.ASL	Air Temperature: <input type="text"/> 30 °C <input type="text"/> 86 °F	Pressure (QNH): <input type="text"/> 1018 hPa <input type="text"/> 30.06 inHg
Battery Cell	Type (Cont. / max. C) - charge state: <input type="text"/> LiPo 10000mAh - 80/120C <input type="checkbox"/> - <input type="checkbox"/> normal <input type="checkbox"/>	Configuration: <input type="text"/> 6 S <input type="text"/> 1 P	Cell Capacity: <input type="text"/> 10000 mAh <input type="text"/> 10000 mAh total	max. discharge: <input type="text"/> 80% <input type="checkbox"/>	Resistance: <input type="text"/> 0.0013 Ohm	Voltage: <input type="text"/> 3.7 V	C-Rate: <input type="text"/> 80 C cont. <input type="text"/> 120 C max	Weight: <input type="text"/> 285 g <input type="text"/> 10.1 oz
Controller	Type - Timing: <input type="text"/> max 100A <input type="checkbox"/> - <input type="checkbox"/> normal <input type="checkbox"/>	Current: <input type="text"/> 100 A cont. <input type="text"/> 100 A max	Resistance: <input type="text"/> 0.0025 Ohm	Weight: <input type="text"/> 130 g <input type="text"/> 4.6 oz	Battery extension Wire: <input type="text"/> AWG10=5.27mm ² <input type="checkbox"/>	Length: <input type="text"/> 0 mm <input type="text"/> 0 inch	Motor extension Wire: <input type="text"/> AWG10=5.27mm ² <input type="checkbox"/>	Length: <input type="text"/> 0 mm <input type="text"/> 0 inch
Motor	Manufacturer - Type (Kv) - Cooling: <input type="text"/> SunnySky <input type="checkbox"/> - <input type="text"/> X4125-440-III (440) <input type="checkbox"/> <input type="text"/> medium <input type="checkbox"/> <input type="text"/> search...	KV (w/o torque): <input type="text"/> 440 rpm/V <input type="text"/> Prop-Kv-Wizard	no-load Current: <input type="text"/> 1.45 A @ <input type="text"/> 10 V	Limit (up to 15s): <input type="text"/> 2430 W <input type="checkbox"/>	Resistance: <input type="text"/> 0.0182 Ohm	Case Length: <input type="text"/> 75 mm <input type="text"/> 2.95 inch	# mag. Poles: <input type="text"/> 14	Weight: <input type="text"/> 354 g <input type="text"/> 12.5 oz
Propeller	Type - yoke twist: <input type="text"/> APC Electric E <input type="checkbox"/> - <input type="text"/> 0° <input type="checkbox"/>	Diameter: <input type="text"/> 15 inch <input type="text"/> 381 mm	Pitch: <input type="text"/> 10 inch <input type="text"/> 254 mm	# Blades: <input type="text"/> 2	PConst / TConst: <input type="text"/> 1.08 / <input type="text"/> 1.0	Gear Ratio: <input type="text"/> 1 : 1	Flight Speed: <input type="text"/> 0 km/h <input type="text"/> 0 mph	<input type="button" value="calculate"/>



Load:



Mixed Flight Time:



electric Power:



est. Temperature:



Thrust-Weight:



Pitch Speed:

Remarks:

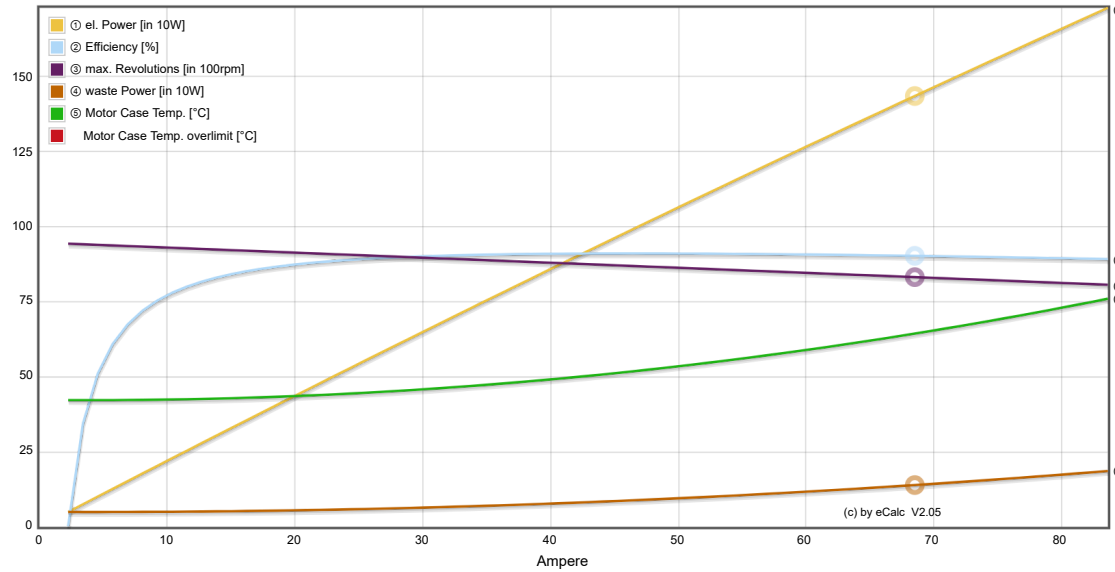
Battery	Motor @ Optimum Efficiency	Motor @ Maximum	Propeller	Total Drive	Airplane
Load: 13.94 C	Current: 45.98 A	Current: 69.69 A	Static Thrust: 6564 g	Drive Weight: 2946 g	All-up Weight: 4500 g
Voltage: 21.11 V	Voltage: 21.37 V	Voltage: 20.94 V	Revolutions*: 8302 rpm	Power-Weight: 688 W/kg	158.7 oz
Rated Voltage: 22.20 V	Revolutions*: 8701 rpm	Revolutions*: 8302 rpm	Stall Thrust: - g	312 W/lb	Wing Load: 39 g/dm ²
Energy: 222 Wh	electric Power: 982.6 W	electric Power: 1459.1 W	avail. Thrust @ 0 km/h: 6564 g	Thrust-Weight: 2.92 : 1	Cubic Wing Load: 3.7
Total Capacity: 10000 mAh	mech. Power: 895.2 W	mech. Power: 1316.7 W	avail. Thrust @ 0 mph: 231.5 oz	Current @ max: 139.37 A	est. Stall Speed: 29 km/h
Used Capacity: 8000 mAh	Efficiency: 91.1 %	Efficiency: 90.2 %	Pitch Speed: 127 km/h	P(in) @ max: 3094.0 W	18 mph
min. Flight Time: 3.4 min		est. Temperature: 65 °C	79 mph	P(out) @ max: 2633.4 W	est. Speed (level): 114 km/h
Mixed Flight Time: 12.1 min		149 °F	Tip Speed: 596 km/h	Efficiency @ max: 85.1 %	71 mph
Weight: 1710 g			370 mph	Torque: 1.51 Nm	est. Speed (vertical): 82 km/h
60.3 oz			specific Thrust: 3.92 g/W	1.11 lbf.ft	51 mph
			0.14 oz/W		est. rate of climb: 22.7 m/s
					4469 ft/min

Motor Partial Load

Propeller	Throttle	Current (DC)	Voltage (DC)	el. Power	Efficiency	Thrust	Spec. Thrust	Pitch Speed	Speed (level)	Motor Run Time
rpm	%	A	V	W	%	g	g/W	km/h	mph	(80%) min
1200	13	0.4	22.2	7.8	51.1	137	17.6	18	11	683.6
1800	19	0.9	22.2	19.4	69.1	309	15.9	27	17	273.7
2400	26	1.8	22.2	40.4	78.7	549	13.6	37	23	131.5
3000	33	3.3	22.1	73.9	84.0	857	11.6	46	28	71.7
3600	40	5.6	22.1	123.3	87.0	1234	10.0	55	34	42.9
4200	47	8.7	22.1	191.9	88.7	1680	8.8	64	40	27.5
4800	54	12.9	22.0	283.2	89.8	2194	7.7	73	45	18.5
5400	61	18.4	21.9	400.6	90.3	2777	6.9	82	51	13.1

6000	69	25.3	21.8	547.8	90.6	3428	120.9	6.3	0.22	91	57	82	51	9.5
6600	76	33.8	21.7	728.4	90.7	4148	146.3	5.7	0.20	101	63	90	56	7.1
7200	84	44.3	21.5	946.0	90.7	4937	174.1	5.2	0.18	110	68	98	61	5.4
7800	93	57.0	21.3	1204.4	90.6	5794	204.4	4.8	0.17	119	74	107	66	4.2
8302	100	69.7	21.1	1459.1	90.2	6564	231.5	4.5	0.16	127	79	114	71	3.4

Motor Characteristic at Full Throttle



Important Note:

Before flight recheck your max. current! If your Current, el. Power or RPM are over the manufacturers limits your motor, controller and/or battery may take damage! **Verify before flight by measurement!**

for printing use Landscape format

* The manufacturer limitation is NOT monitored

** Testdata with reduced accuracy

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