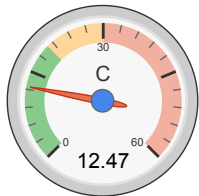




all data without guarantee - Accuracy: +/-10%

propCalc - Propeller Calculator

General	Model Weight: 727 g w/o Drive 25.6 oz	# of Motors: 1 (on same Battery)	Wing Area: 50 dm ² 775 in ²	Drag: simplified 0.05 Cd	Cross Section: 0 dm ² 0 in ²	Field Elevation: 500 m ASL 1640 ft ASL	Air Temperature: 25 °C 77 °F	Pressure (QNH): 1013 hPa 29.91 inHg
Battery Cell	Type (Cont. / max. C) - charge state: LiPo 2200mAh - 20/30C - normal	Configuration: 3 S 1 P	Cell Capacity: 2200 mAh 2200 mAh total	max. discharge: 85%	Resistance: 0.010 Ohm	Voltage: 3.7 V	C-Rate: 20 C cont. 30 C max	Weight: 52 g 1.8 oz
Controller	Type: max 40A	Current: 40 A cont. 40 A max	Resistance: 0.006 Ohm	Weight: 50 g 1.8 oz	Battery extension Wire: AWG10=5.27mm ²	Length: 0 mm 0 inch	Motor extension Wire: AWG10=5.27mm ²	Length: 0 mm 0 inch
Motor	Manufacturer - Type (Kv) - Cooling: AXI - 2217/12 V2 Long (1380) medium search...	KV (w/o torque): 1380 rpm/V Prop-Kv-Wizard	no-load Current: 0.4 A @ 10 V	Limit (up to 15s): 330 W	Resistance: 0.061 Ohm	Case Length: 45 mm 1.77 inch	# mag. Poles: 14	Weight: 74 g 2.6 oz
Propeller	Type - yoke twist: Aeronaut CamCarbon - 0°	Diameter: 9 inch 228.6 mm	Pitch: 6 inch 152.4 mm	# Blades: 2	PConst / TConst: 1.07 / 0.99	Gear Ratio: 1 : 1	Flight Speed: 0 km/h 0 mph	<input type="button" value="calculate"/>



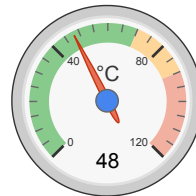
Load:



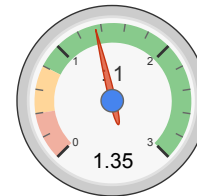
Mixed Flight Time:



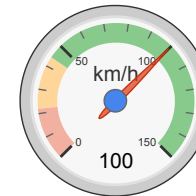
electric Power:



est. Temperature:



Thrust-Weight:



Pitch Speed:

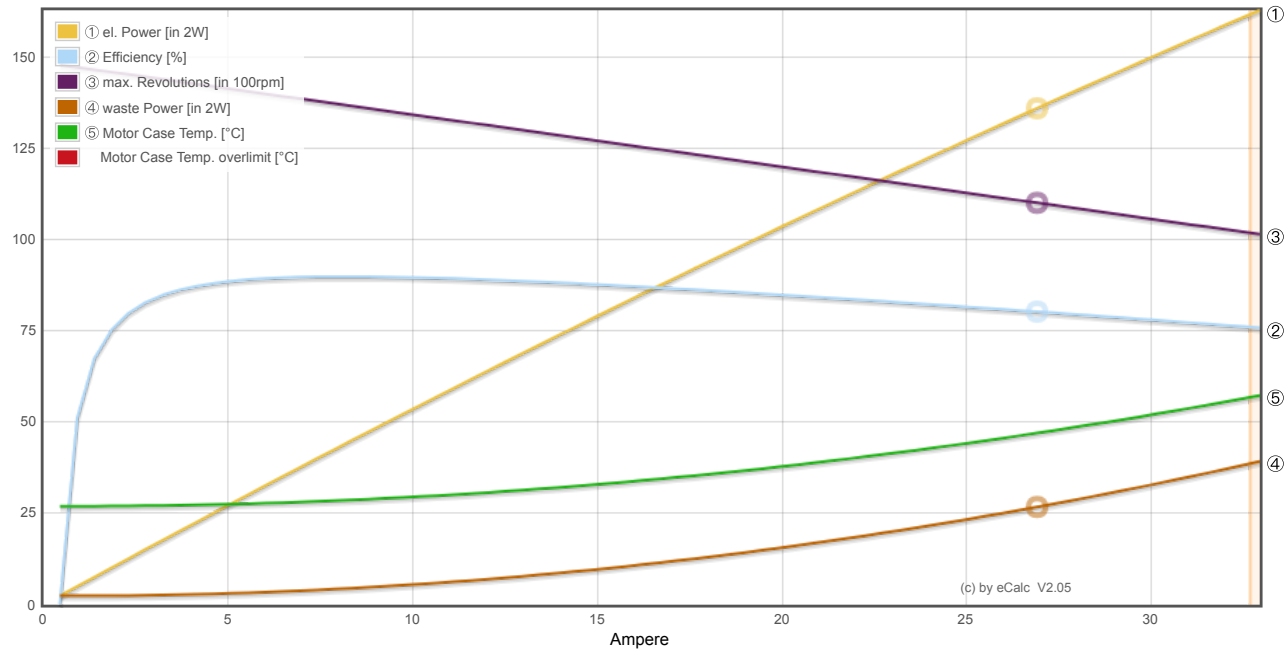
Remarks:

Battery	Motor @ Optimum Efficiency	Motor @ Maximum	Propeller	Total Drive	Airplane
Load: 12.47 C	Current: 7.95 A	Current: 27.44 A	Static Thrust: 1394 g	Drive Weight: 308 g	All-up Weight: 1035 g
Voltage: 10.26 V	Voltage: 10.81 V	Voltage: 10.10 V	Revolutions*: 10936 rpm	Power-Weight: 294 W/kg	Wing Load: 21 g/dm ²
Rated Voltage: 11.10 V	Revolutions*: 13722 rpm	Revolutions*: 10936 rpm	Stall Thrust: 802 g	Thrust-Weight: 1.35 : 1	Cubic Wing Load: 2.9
Energy: 24.42 Wh	electric Power: 85.9 W	electric Power: 277.0 W	avail.Thrust @ 0 km/h: 1394 g	Current @ max: 27.44 A	est. Stall Speed: 22 km/h
Total Capacity: 2200 mAh	mech. Power: 77.3 W	mech. Power: 221.4 W	avail.Thrust @ 0 mph: 49.2 oz	P(in) @ max: 304.6 W	est. Speed (level): 88 km/h
Used Capacity: 1870 mAh	Efficiency: 89.9 %	Efficiency: 79.9 %	Pitch Speed: 100 km/h	P(out) @ max: 221.4 W	est. Speed (level): 88 km/h
min. Flight Time: 4.1 min		est. Temperature: 48 °C	Tip Speed: 471 km/h	Efficiency @ max: 72.7 %	est. Speed (vertical): 25 km/h
Mixed Flight Time: 8.0 min		est. Temperature: 118 °F	Tip Speed: 293 mph	Torque: 0.19 Nm	est. Speed (vertical): 16 mph
Weight: 156 g			specific Thrust: 2.90 g/W	0.14 lbf.ft	est. rate of climb: 6.9 m/s
5.5 oz					1353 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	oz	g/W	oz/W	km/h	mph	km/h	mph	(85%) min
1600	11	0.1	11.1	1.0	67.9	30	1.1	29.3	1.03	15	9	-	-	1218.0
2400	17	0.3	11.1	2.9	79.8	67	2.4	22.9	0.81	22	14	-	-	423.5
3200	23	0.6	11.1	6.6	84.3	119	4.2	18.2	0.64	29	18	-	-	188.4
4000	30	1.1	11.1	12.6	85.9	186	6.6	14.8	0.52	37	23	32	20	98.0
4800	36	2.0	11.0	21.6	86.3	268	9.5	12.4	0.44	44	27	38	24	56.8
5600	43	3.2	11.0	34.5	86.0	365	12.9	10.6	0.37	51	32	45	28	35.5
6400	50	4.8	11.0	51.8	85.4	477	16.8	9.2	0.32	59	36	51	32	23.5
7200	58	6.9	10.9	74.5	84.6	604	21.3	8.1	0.29	66	41	58	36	16.2
8000	66	9.7	10.8	103.3	83.7	746	26.3	7.2	0.25	73	45	64	40	11.6
8800	74	13.2	10.7	139.0	82.8	902	31.8	6.5	0.23	81	50	70	44	8.5
9600	83	17.5	10.6	182.7	81.8	1074	37.9	5.9	0.21	88	55	77	48	6.4
10400	93	23.0	10.4	235.1	80.8	1260	44.5	5.4	0.19	95	59	83	52	4.9
10936	100	27.4	10.3	277.0	79.9	1394	49.2	5.0	0.18	100	62	88	54	4.1

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