

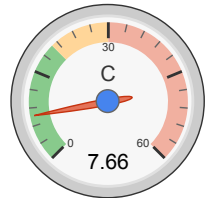


all data without guarantee - Accuracy: +/-10%

propCalc - Propeller Calculator

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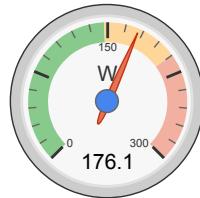
General	Model Weight: 727 g w/o Drive 25.6 oz	# of Motors: 1 (on same Battery)	Wing Area: 40 dm ² 620 in ²	Drag: simplified 0.05 Cd	Cross Section: 0 dm ² 0 in ²	Field Elevation: 500 m ASL 1640 ft ASL	Air Temperature: 25 °C 77 °F	Pressure (QNH): 1013 hPa 29.91 inHg
Battery Cell	Type (Cont. / max. C) - 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 30A	Current: 30 A cont. 30 A max	Resistance: 0.008 Ohm	Weight: 40 g 1.4 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: Turnigy - D2830-11 (1000) medium	KV (w/o torque): 1000 rpm/V Prop-Kv-Wizard	no-load Current: 0.4 A @ 11.1 V	Limit (up to 15s): 210 W	Resistance: 0.107 Ohm	Case Length: 28 mm 1.1 inch	# mag. Poles: 10	Weight: 52 g 1.8 oz
Propeller	Type - yoke twist: Aeronaut CamCarbon - 0°	Diameter: 10 inch 254 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	calculate



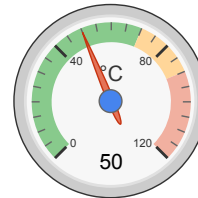
Load:



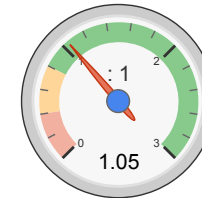
Mixed Flight Time:



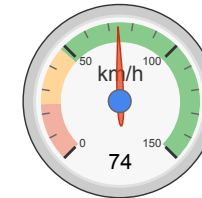
electric Power:



est. Temperature:



Thrust-Weight:



Pitch Speed:

Remarks:

Battery	
Load:	7.66 C
Voltage:	10.58 V
Rated Voltage:	11.10 V
Energy:	24.42 Wh
Total Capacity:	2200 mAh
Used Capacity:	1870 mAh
min. Flight Time:	6.7 min
Mixed Flight Time:	11.0 min
Weight:	156 g 5.5 oz

Motor @ Optimum Efficiency	
Current:	5.80 A
Voltage:	10.88 V
Revolutions*:	9857 rpm
electric Power:	63.1 W
mech. Power:	55.1 W
Efficiency:	87.3 %

Motor @ Maximum	
Current:	16.85 A
Voltage:	10.45 V
Revolutions*:	8123 rpm
electric Power:	176.1 W
mech. Power:	138.2 W
Efficiency:	78.5 %
est. Temperature:	50 °C 122 °F
Wattmeter readings	
Current:	16.85 A
Voltage:	10.58 V
Power:	178.3 W

Propeller	
Static Thrust:	1055 g 37.2 oz
Revolutions*:	8123 rpm
Stall Thrust:	675 g 23.8 oz
avail. Thrust @ 0 km/h:	1055 g
avail. Thrust @ 0 mph:	37.2 oz
Pitch Speed:	74 km/h 46 mph
Tip Speed:	389 km/h 242 mph
specific Thrust:	5.99 g/W 0.21 oz/W

Total Drive	
Drive Weight:	273 g 9.6 oz
Power-Weight:	187 W/kg 85 W/lb
Thrust-Weight:	1.05 : 1
Current @ max:	16.85 A
P(in) @ max:	187.1 W
P(out) @ max:	138.2 W
Efficiency @ max:	73.9 %
Torque:	0.16 Nm 0.12 lbf.ft

Airplane	
All-up Weight:	1000 g 35.3 oz
Wing Load:	25 g/dm ² 8.2 oz/ft ²
Cubic Wing Load:	4.0
est. Stall Speed:	24 km/h 15 mph
est. Speed (level):	66 km/h 41 mph
est. Speed (vertical):	4 km/h 2 mph
est. rate of climb:	5.7 m/s 1117 ft/min

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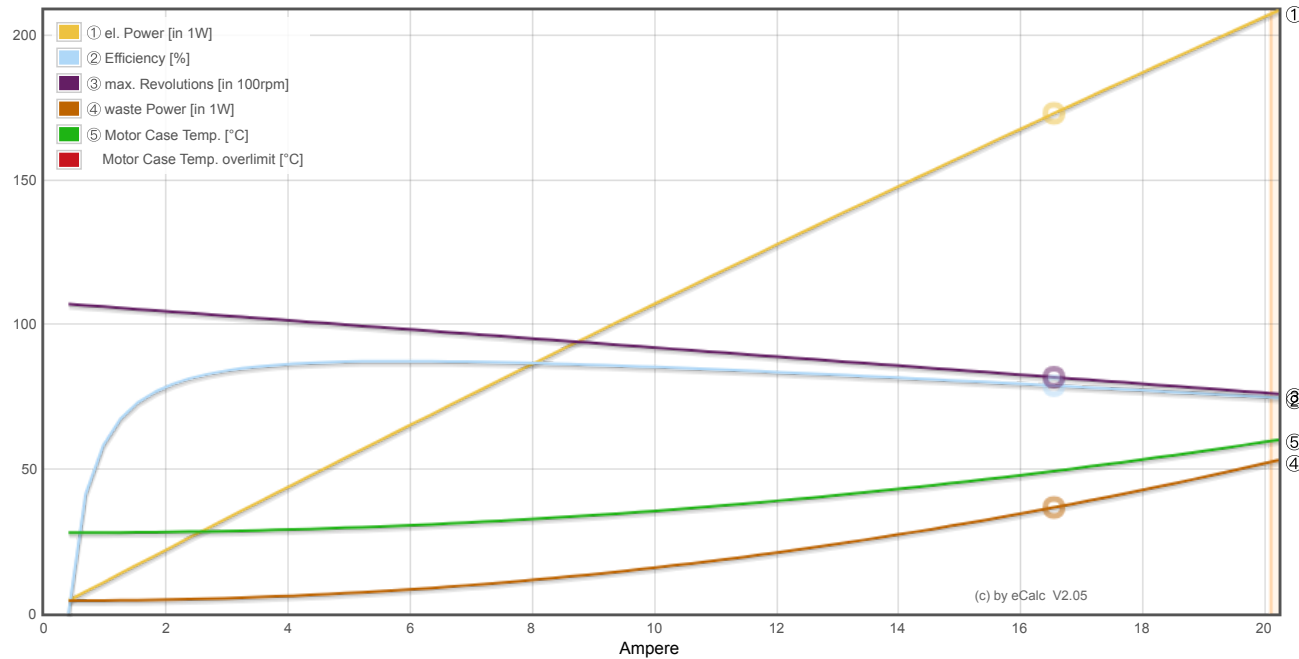
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Motor Partial Load

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
1200	12	0.1	11.1	0.9	52.0	23	0.8	26.9	0.95	11	7	-	-	1449.0
1800	18	0.2	11.1	2.2	68.2	52	1.8	23.5	0.83	16	10	-	-	563.3
2400	24	0.4	11.1	4.7	76.2	92	3.2	19.7	0.70	22	14	-	-	265.1
3000	31	0.8	11.1	8.7	80.1	144	5.1	16.6	0.58	27	17	-	-	142.3
3600	38	1.3	11.1	14.7	81.8	207	7.3	14.1	0.50	33	20	-	-	84.0
4200	45	2.1	11.0	23.1	82.5	282	9.9	12.2	0.43	38	24	33	21	53.1
4800	52	3.2	11.0	34.5	82.5	368	13.0	10.7	0.38	44	27	39	24	35.5
5400	60	4.5	11.0	49.3	82.1	466	16.4	9.4	0.33	49	31	44	27	24.7
6000	68	6.3	10.9	68.2	81.5	575	20.3	8.4	0.30	55	34	49	30	17.8
6600	76	8.5	10.8	91.6	80.8	696	24.6	7.6	0.27	60	38	54	34	13.1
7200	85	11.3	10.8	120.1	80.0	829	29.2	6.9	0.24	66	41	59	37	9.9
7800	95	14.7	10.7	154.3	79.1	972	34.3	6.3	0.22	71	44	64	40	7.6
8123	100	16.9	10.6	176.1	78.5	1055	37.2	6.0	0.21	74	46	66	41	6.7

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