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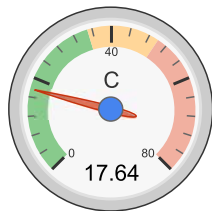
...insert your project name...

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

propCalc - Propeller Calculator

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General	Model Weight:	# of Motors:	Wing Area:	Drag:	Cross Section:	Field Elevation:	Air Temperature:	Pressure (QNH):
	1500 g w/o Drive ▾	1	26.8 dm²	simplified ▾	0 dm²	500 m ASL	25 °C	1013 hPa
	52.9 oz	(on same Battery)	415.4 in²	0.05 Cd	0 in²	1640 ft ASL	77 °F	29.91 inHg
Battery Cell	Type (Cont. / max. C) - charge state:	Configuration:	Cell Capacity:	max. discharge:	Resistance:	Voltage:	C-Rate:	Weight:
	LiPo 3000mAh - 35/50C ▾ - normal ▾	3 S 1 P	3000 mAh	85% ▾	0.0048 Ohm	3.7 V	35 C cont.	77 g
			3000 mAh total				50 C max	2.7 oz
Controller	Type:	Current:	Resistance:	Weight:	Wire extension battery:	Length:	Wire extension motor:	Length:
	max 60A ▾	60 A cont.	0.0045 Ohm	80 g	AWG10=5.27mm² ▾	0 mm	AWG10=5.27mm² ▾	0 mm
		60 A max		2.8 oz		0 inch		0 inch
Motor	Manufacturer - Type (Kv) - Cooling:	KV (w/o torque):	no-load Current:	Limit (up to 15s):	Resistance:	Case Length:	# mag. Poles:	Weight:
	Turnigy ▾ - D3548-4 (1100) ▾	1100 rpm/V	3.1 A @ 8 V	910 W ▾	0.023 Ohm	48 mm	10	159 g
	medium ▾ search...	Prop-Kv-Wizard				1.89 inch		5.6 oz
Propeller	Type - yoke twist:	Diameter:	Pitch:	# Blades:	PConst / TConst:	Gear Ratio:	Flight Speed:	
	APC Electric E ▾ - 0° ▾	12 inch	6 inch	2	1.08 / 1.0	1 : 1	0 km/h	calculate
		304.8 mm	152.4 mm				0 mph	



A circular power meter gauge with a scale from 0 to 2000 W. The needle points to 534.4 W, which is in the green 'Good' region.

Pitch Speed:

Battery		Motor @ Optimum Efficiency		Motor @ Maximum		Propeller		Total Drive		Airplane	
Load:	17.64 C	Current:	36.56 A	Current:	52.91 A	Static Thrust:	2404 g	Drive Weight:	517 g	All-up Weight:	2017 g
Voltage:	10.34 V	Voltage:	10.41 V	Voltage:	10.10 V		84.8 oz		18.2 oz		71.1 oz
Rated Voltage:	11.10 V	Revolutions*:	10074 rpm	Revolutions*:	9283 rpm	Revolutions*:	9283 rpm	Power-Weight:	291 W/kg	Wing Load:	75 g/dm²
Energy:	33.3 Wh	electric Power:	380.5 W	electric Power:	534.4 W	Stall Thrust:	1863 g		132 W/lb		24.6 oz/ft²
Total Capacity:	3000 mAh	mech. Power:	313.2 W	mech. Power:	432.1 W		65.7 oz	Thrust-Weight:	1.19 : 1	Cubic Wing Load:	14.5
Used Capacity:	2550 mAh	Efficiency:	82.3 %	Efficiency:	80.9 %	avail. Thrust @ 0 km/h:	2404 g	Current @ max:	52.91 A	est. Stall Speed:	41 km/h
min. Flight Time:	2.9 min			est. Temperature:	64 °C	avail. Thrust @ 0 mph:	84.8 oz	P(in) @ max:	587.3 W		25 mph
Mixed Flight Time:	5.2 min				147 °F	Pitch Speed:	85 km/h	P(out) @ max:	432.1 W	est. Speed (level):	78 km/h
Weight:	231 g						53 mph	Efficiency @ max:	73.6 %		48 mph
	8.1 oz					Wattmeter readings		Tip Speed:	0.44 Nm	est. Speed (vertical):	13 km/h
				Current:	52.91 A		331 mph	Torque:	0.32 lbf.ft		8 mph
				Voltage:	10.34 V			specific Thrust:		est. rate of climb:	8.1 m/s

Power:

547.1 W

0.16 oz/W

1593 ft/min

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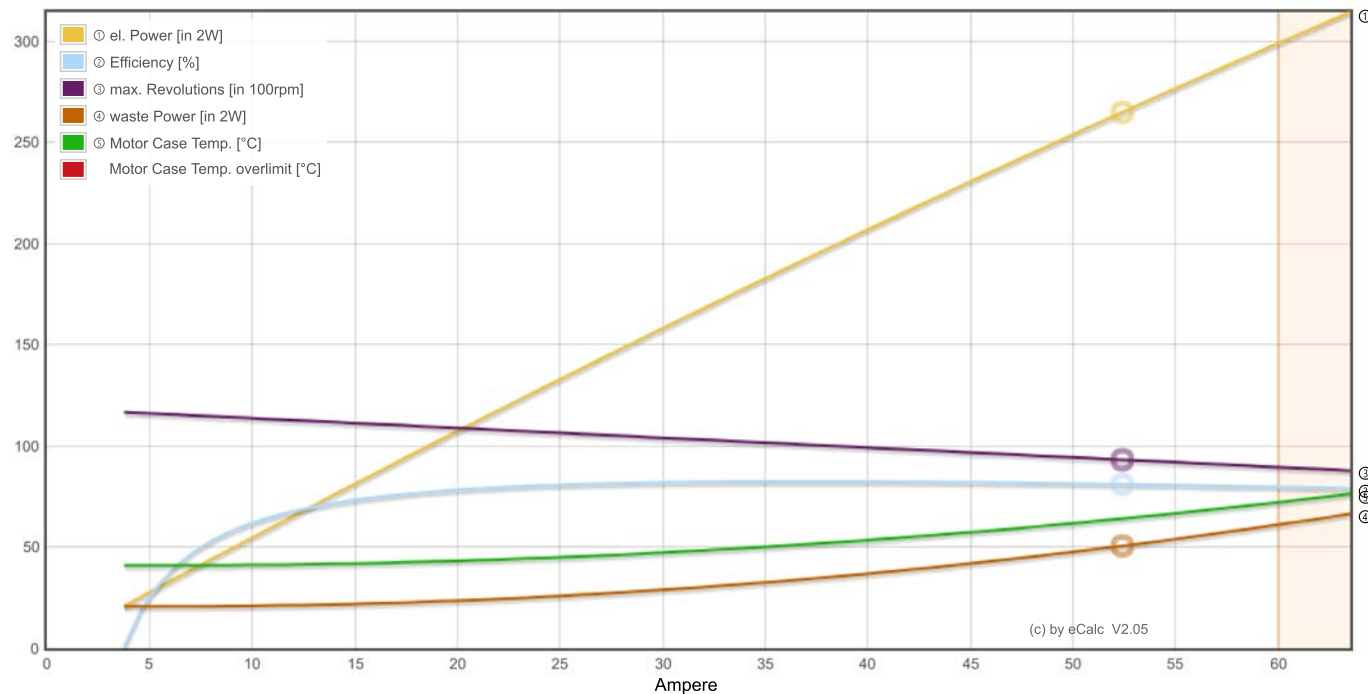
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Propeller rpm	Throttle %	Current (DC)		Voltage (DC) V	el. Power W	Motor Partial Load		Thrust g	Thrust oz	Spec. Thrust		Pitch Speed		Speed (level)		Motor Run Time (85%) min
		A				Efficiency %				g/W	oz/W	km/h	mph	km/h	mph	
1400	13	0.5		11.1	5.1	29.0		55	1.9	10.7	0.38	13	8	-	-	329.7
2100	19	1.0		11.1	10.7	46.8		123	4.3	11.5	0.41	19	12	-	-	157.4
2800	26	1.8		11.1	19.9	59.5		219	7.7	11.0	0.39	26	16	-	-	84.3
3500	32	3.1		11.1	34.0	67.8		342	12.1	10.0	0.35	32	20	-	-	49.1
4200	39	5.0		11.0	54.5	73.2		492	17.4	9.0	0.32	38	24	-	-	30.5
4900	46	7.6		11.0	82.7	76.6		670	23.6	8.1	0.29	45	28	-	-	20.0
5600	54	11.2		10.9	120.1	78.7		875	30.9	7.3	0.26	51	32	-	-	13.7
6300	62	15.7		10.9	168.2	80.1		1107	39.1	6.6	0.23	58	36	-	-	9.7
7000	70	21.6		10.8	228.5	80.8		1367	48.2	6.0	0.21	64	40	55	34	7.1
7700	78	28.9		10.7	302.7	81.2		1654	58.3	5.5	0.19	70	44	65	40	5.3
8400	87	38.0		10.6	392.3	81.4		1968	69.4	5.0	0.18	77	48	71	44	4.0
9100	97	49.1		10.4	499.1	81.3		2310	81.5	4.6	0.16	83	52	76	47	3.1
9283	100	52.9		10.3	534.4	80.9		2404	84.8	4.5	0.16	85	53	78	48	2.9

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 measurment!**

for printing use Landscape format

* The manufacturer limitation is NOT monitored

** Testdata with reduced accuracy

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