

548

Member Full Version

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



xcopterCalc - Multicopter Calculator

Welcome Simon

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Parts SKYRC
6X80...

HeliPal

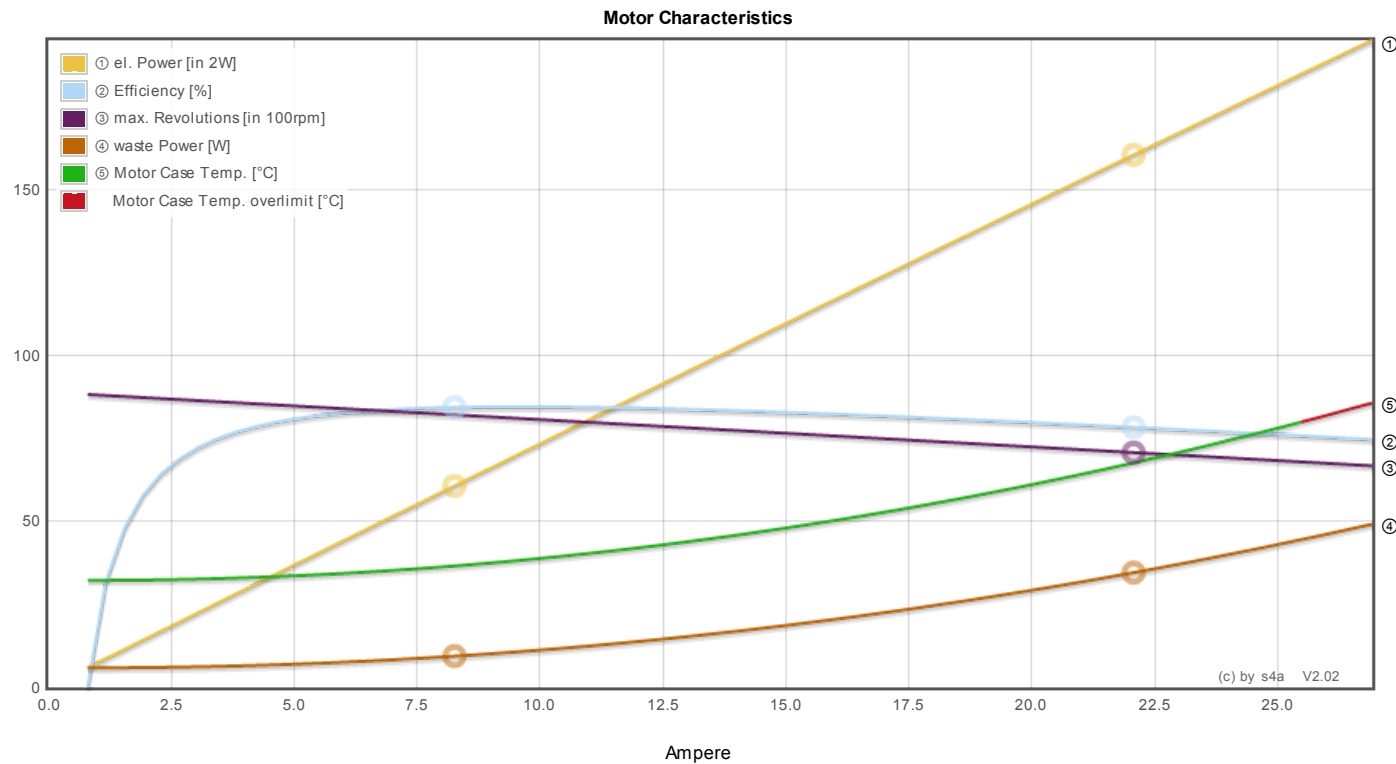


A\$94.59

General	Motor Cooling:	# of Rotors:	Model Weight:		Field Elevation	Air Temperature	Pressure (QNH):	
	<input data-bbox="224 467 336 494" type="text" value="medium"/>	<input data-bbox="645 467 719 494" type="text" value="6"/> <input data-bbox="645 507 707 534" type="text" value="flat"/>	<input data-bbox="857 467 931 494" type="text" value="4750"/> g <input data-bbox="857 507 958 534" type="text" value="167.6"/> oz	<input data-bbox="1086 467 1232 494" type="text" value="incl. Drive"/>	<input data-bbox="1417 467 1491 494" type="text" value="500"/> m ASL <input data-bbox="1417 507 1518 534" type="text" value="1640"/> ft ASL	<input data-bbox="1585 467 1659 494" type="text" value="25"/> °C <input data-bbox="1585 507 1659 534" type="text" value="77"/> °F	<input data-bbox="1753 467 1854 494" type="text" value="1013"/> hPa <input data-bbox="1753 507 1877 534" type="text" value="29.91"/> inHg	
Battery Cell	Type (Cont. / max. C) - charge state:	Configuration:	Cell Capacity:	Total Capacity:	Resistance:	Voltage:	C-Rate:	Weight:
	<input data-bbox="224 579 490 606" type="text" value="custom"/> - <input data-bbox="517 579 613 606" type="text" value="normal"/>	<input data-bbox="645 579 707 606" type="text" value="4"/> S <input data-bbox="745 579 808 606" type="text" value="2"/> P	<input data-bbox="857 579 981 606" type="text" value="16000"/> mAh	<input data-bbox="1086 579 1209 606" type="text" value="32000"/> mAh	<input data-bbox="1261 579 1384 606" type="text" value="0.0015"/> Ohm	<input data-bbox="1417 579 1491 606" type="text" value="3.7"/> V	<input data-bbox="1585 579 1659 606" type="text" value="35"/> C cont. <input data-bbox="1585 619 1659 646" type="text" value="50"/> C max	<input data-bbox="1753 579 1854 606" type="text" value="320"/> g <input data-bbox="1753 619 1854 646" type="text" value="11.3"/> oz
Controller	Type:	cont. Current:	max. Current:		Resistance:			Weight:
	<input data-bbox="224 686 510 713" type="text" value="max 30A"/>	<input data-bbox="645 686 719 713" type="text" value="30"/> A	<input data-bbox="857 686 958 713" type="text" value="30"/> A		<input data-bbox="1261 686 1384 713" type="text" value="0.008"/> Ohm			<input data-bbox="1753 686 1854 713" type="text" value="40"/> g <input data-bbox="1753 726 1854 753" type="text" value="1.4"/> oz
Motor	Manufacturer - Type (Kv):	KV (w/o torque):	no-load Current:	Limit (up to 15s):	Resistance:	Case Length:	# mag. Poles:	Weight:
	<input data-bbox="224 794 378 821" type="text" value="Tarot"/> <input data-bbox="398 794 591 821" type="text" value="4006/620KV (620)"/> <input data-bbox="224 834 344 861" type="text" value="search..."/>	<input data-bbox="645 794 719 821" type="text" value="620"/> rpm/V	<input data-bbox="857 794 931 821" type="text" value="0.8"/> A @ <input data-bbox="981 794 1055 821" type="text" value="14.8"/> V	<input data-bbox="1086 794 1160 821" type="text" value="426"/> W <input data-bbox="1178 794 1229 821" type="text" value=""/>	<input data-bbox="1261 794 1384 821" type="text" value="0.126"/> Ohm	<input data-bbox="1417 794 1491 821" type="text" value="30"/> mm <input data-bbox="1417 834 1491 861" type="text" value="1.18"/> inch	<input data-bbox="1585 794 1659 821" type="text" value="22"/>	<input data-bbox="1753 794 1854 821" type="text" value="82"/> g <input data-bbox="1753 834 1854 861" type="text" value="2.9"/> oz
Propeller	Type - yoke twist:	Diameter:	Pitch:	# Blades:	PConst:	Gear Ratio:		
	<input data-bbox="224 906 490 933" type="text" value="custom"/> - <input data-bbox="517 906 600 933" type="text" value="0°"/>	<input data-bbox="645 906 719 933" type="text" value="13"/> inch	<input data-bbox="857 906 981 933" type="text" value="5.5"/> inch	<input data-bbox="1086 906 1160 933" type="text" value="2"/>	<input data-bbox="1261 906 1339 933" type="text" value="1.3"/>	<input data-bbox="1417 906 1491 933" type="text" value="1"/> : 1	<input data-bbox="1753 906 1854 933" type="text" value="calculate"/>	

Remarks:

Battery		Motor @ Optimum Efficiency		Motor @ Maximum		Motor @ Hover		Total Drive	
Load:	4.21 C	Current:	9.20 A	Current:	22.43 A	Current:	8.77 A	Drive Weight:	3621 g
Voltage:	14.40 V	Voltage:	14.56 V	Voltage:	14.22 V	Voltage:	14.57 V		127.7 oz
Rated Voltage:	14.80 V	Revolutions*:	8059 rpm	Revolutions*:	6850 rpm	Throttle (linear):	58 %	All-up Weight:	4750 g
Flight Time:	14.3 min	electric Power:	134.0 W	electric Power:	318.9 W	electric Power:	127.8 W		167.5 oz
Mixed Flight Time:	17.4 min	mech. Power:	113.5 W	mech. Power:	248.1 W	mech. Power:	108.1 W	add. Payload:	1547 g
Hover Flight Time:	31.0 min	Efficiency:	84.7 %	Efficiency:	77.8 %	Efficiency:	84.6 %		54.6 oz
Weight:	2560 g			est. Temperature:	69 °C	est. Temperature:	37 °C	Current @ Hover:	52.61 A
	90.3 oz				156 °F		99 °F	P(in) @ Hover:	778.6 W
						specific Thrust:	6.20 g/W	P(out) @ Hover:	648.6 W
							0.22 oz/W	Efficiency @ Hover:	83.3 %
								Current @ max:	134.58 A
								P(in) @ max:	1991.8 W
								P(out) @ max:	1488.3 W
								Efficiency @ max:	74.7 %



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!**

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* The manufacturer limitation is NOT monitored

** Testdata with reduced accuracy

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Version: X6.511, 12.06.14 / Data: 14.06.14 with 3781 Motors
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