

548

Member Full Version

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



xcopterCalc - Multicopter Calculator

Welcome Simon

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Parts SKYRC
6X80...

HeliPal

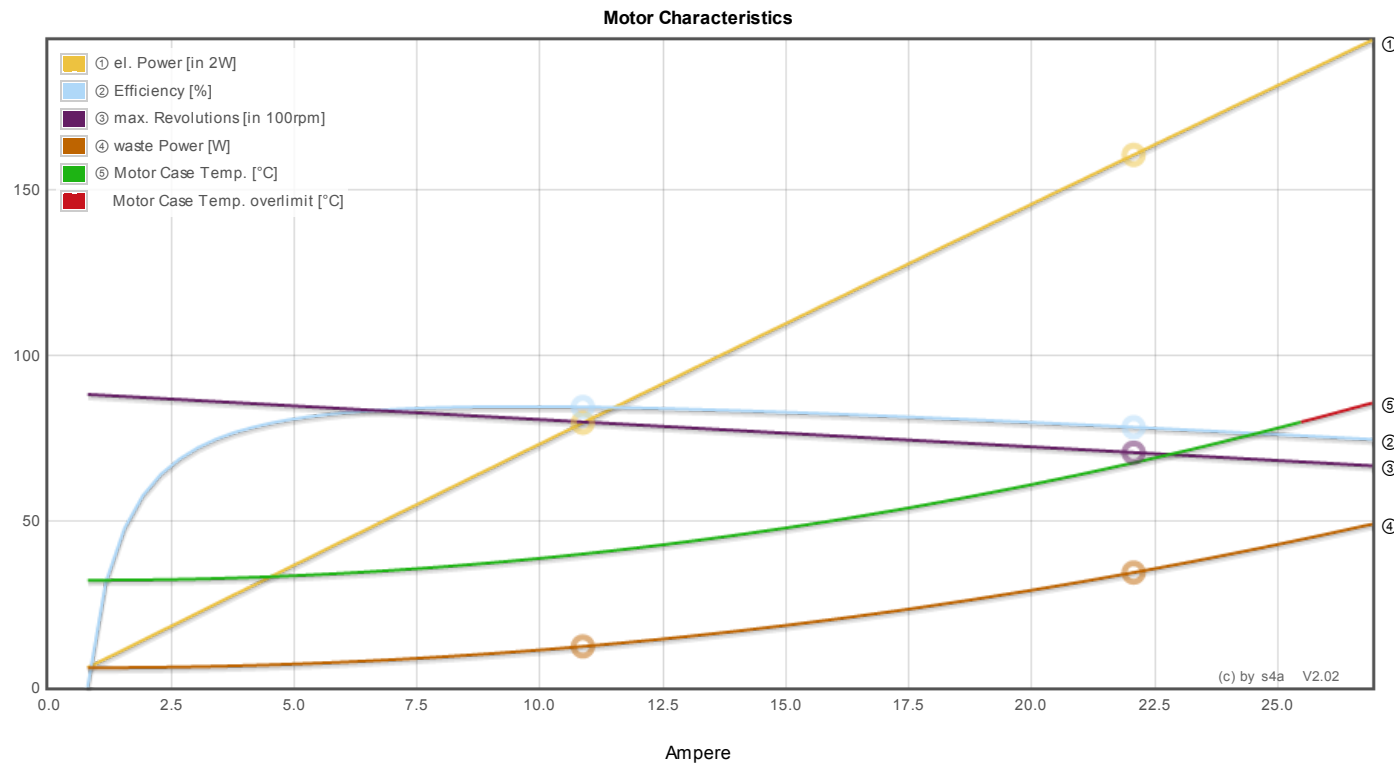


A\$94.59

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="5700"/> g <input data-bbox="857 507 931 534" type="text" value="201.1"/> 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 1491 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 1827 494" type="text" value="1013"/> hPa <input data-bbox="1753 507 1827 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="857 579 931 606" type="text" value="16000"/> mAh	<input data-bbox="1086 579 1160 606" type="text" value="32000"/> mAh	<input data-bbox="1261 579 1335 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 1827 606" type="text" value="320"/> g <input data-bbox="1753 619 1827 646" type="text" value="11.3"/> oz
Controller	Type:	cont. Current:	max. Current:		Resistance:			Weight:
	<input data-bbox="224 691 510 718" type="text" value="max 30A"/>	<input data-bbox="645 691 707 718" type="text" value="30"/> A	<input data-bbox="857 691 931 718" type="text" value="30"/> A		<input data-bbox="1261 691 1335 718" type="text" value="0.008"/> Ohm			<input data-bbox="1753 691 1827 718" type="text" value="40"/> g <input data-bbox="1753 730 1827 758" 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="224 802 378 829" type="text" value="Tarot"/> <input data-bbox="400 802 591 829" type="text" value="4006/620KV (620)"/> <input data-bbox="224 837 344 865" type="text" value="search..."/>	<input data-bbox="645 802 719 829" type="text" value="620"/> rpm/V	<input data-bbox="857 802 931 829" type="text" value="0.8"/> A @ <input data-bbox="981 802 1055 829" type="text" value="14.8"/> V	<input data-bbox="1086 802 1160 829" type="text" value="426"/> W <input data-bbox="1182 802 1232 829" type="text" value=""/>	<input data-bbox="1261 802 1335 829" type="text" value="0.126"/> Ohm	<input data-bbox="1417 802 1491 829" type="text" value="30"/> mm <input data-bbox="1417 837 1491 865" type="text" value="1.18"/> inch	<input data-bbox="1585 802 1659 829" type="text" value="22"/>	<input data-bbox="1753 802 1827 829" type="text" value="82"/> g <input data-bbox="1753 837 1827 865" 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="857 906 931 933" type="text" value="5.5"/> inch	<input data-bbox="1086 906 1160 933" type="text" value="2"/>	<input data-bbox="1261 906 1335 933" type="text" value="1.3"/>	<input data-bbox="1417 906 1491 933" type="text" value="1"/> : 1	<input data-bbox="1753 906 1852 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:	11.62 A	Drive Weight:	3621 g
Voltage:	14.40 V	Voltage:	14.56 V	Voltage:	14.22 V	Voltage:	14.50 V		127.7 oz
Rated Voltage:	14.80 V	Revolutions*:	8059 rpm	Revolutions*:	6850 rpm	Throttle (linear):	72 %	All-up Weight:	5700 g
Flight Time:	14.3 min	electric Power:	134.0 W	electric Power:	318.9 W	electric Power:	168.5 W		201.1 oz
Mixed Flight Time:	16.0 min	mech. Power:	113.5 W	mech. Power:	248.1 W	mech. Power:	142.1 W	add. Payload:	597 g
Hover Flight Time:	23.4 min	Efficiency:	84.7 %	Efficiency:	77.8 %	Efficiency:	84.3 %		21.1 oz
Weight:	2560 g			est. Temperature:	69 °C	est. Temperature:	41 °C	Current @ Hover:	69.74 A
	90.3 oz				156 °F		106 °F	P(in) @ Hover:	1032.2 W
						specific Thrust:	5.64 g/W	P(out) @ Hover:	852.6 W
							0.2 oz/W	Efficiency @ Hover:	82.6 %
								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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