

Scorpion SII-3014-830 Motor Propeller Data

Motor Wind 16-Turn Delta		Motor Kv 830 RPM/Volt		No-Load Current I ₀ = 1.06 Amps @ 10v		Motor Resistance R _m = 0.042 Ohms		I Max 30 Amps	P Max (3S) 550 W
Outside Diameter 37.5 mm, 1.476in.		Body Length 39.7 mm, 1.563 in.		Total Shaft Length 68.5 mm, 2.697 in.		Shaft Diameter 4.98 mm, 0.197 in.		Motor Weight 129 gm, 4.52 oz	
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	8x6-E	11.1	12.00	133.2	9,070	51.5	693.5	24.46	5.21
APC	8x6-SF	11.1	16.56	183.9	8,759	49.8	806	28.43	4.38
APC	8x8-E	11.1	16.48	182.9	8,725	66.1	662.7	23.38	3.62
APC	9x4.5-E	11.1	11.37	126.2	9,127	38.9	821.7	28.98	6.51
APC	9x4.7-SF	11.1	12.48	138.5	9,063	40.3	892.1	31.47	6.44
APC	9x6-E	11.1	13.72	152.3	8,923	50.7	843.3	29.75	5.54
APC	9x6-SF	11.1	24.21	268.8	8,128	46.2	1125.7	39.71	4.19
APC	9x7.5-E	11.1	20.21	224.3	8,426	59.8	918	32.38	4.09
APC	9x7.5-SF	11.1	27.41	304.2	7,870	55.9	1081.7	38.16	3.56
APC	9x9-E	11.1	23.95	265.9	8,137	69.3	899.7	31.74	3.38
APC	10x3.8-SF	11.1	21.39	237.4	8,387	30.2	1344.6	47.43	5.66
APC	10x4.7-SF	11.1	22.51	249.8	8,284	36.9	1361	48.01	5.45
APC	10x5-E	11.1	16.12	178.9	8,769	41.5	1079.7	38.08	6.03
APC	10x6-E	11.1	18.37	203.9	8,593	48.8	1153.2	40.68	5.66
APC	10x7-E	11.1	21.49	238.5	8,349	55.3	1170.1	41.27	4.91
APC	10x7-SF	11.1	31.47	349.3	7,552	50.1	1451.1	51.19	4.15
APC	10x10-E	11.1	30.70	340.8	7,596	71.9	1006.1	35.49	2.95
APC	11x3.8-SF	11.1	23.90	265.2	8,162	29.4	1522	53.69	5.74
APC	11x4.7-SF	11.1	27.85	309.1	7,832	34.9	1661.9	58.62	5.38
APC	11x7-E	11.1	26.64	295.7	7,951	52.7	1518.6	53.57	5.14
APC	11x8-E	11.1	28.41	315.4	7,790	59.0	1482.5	52.29	4.70
APC	11x8.5-E	11.1	30.49	338.4	7,613	61.3	1467	51.75	4.34
APC	12x6-E	11.1	28.80	319.7	8,593	48.8	1153.2	40.68	3.61
APC	12x8-E	11.1	34.84	386.7	7,219	54.7	1507.3	53.17	3.90
APC	13x4-E	11.1	25.74	285.7	8,019	30.4	1783.2	62.90	6.24
GEM	9x4.7-C	11.1	12.65	140.4	8,660	38.5	883.6	31.17	6.29
GEM	10x4.5-C	11.1	19.00	210.9	8,176	34.8	1221.7	43.09	5.79
GEM	11x4.7-C	11.1	25.15	279.2	7,700	34.3	1579.2	55.70	5.66
GEM	12x4.5-C	11.1	29.40	326.3	7,372	31.4	1648.1	58.13	5.05
GWS	9x5-DD	11.1	10.99	122.0	9,185	43.5	824.2	29.07	6.76
GWS	9x5x3-DD	11.1	14.19	157.5	8,879	42.0	938.5	33.10	5.96
GWS	10x6-DD	11.1	15.41	171.0	8,842	50.2	1060.6	37.41	6.20
GWS	10x6x3-DD	11.1	19.94	221.3	8,388	47.7	1281.3	45.20	5.79
GWS	11x7-DD	11.1	23.67	262.8	8,184	54.3	1486.4	52.43	5.66
GWS	12x8-DD	11.1	33.50	371.8	7,358	55.7	1763	62.19	4.74
MAS	8x6x3	11.1	12.23	135.8	9,089	51.6	716.7	25.28	5.28
MAS	9x7x3	11.1	19.41	215.4	8,523	56.5	1096.2	38.67	5.09
MAS	10x5x3	11.1	17.21	191.0	8,699	41.2	1145	40.39	5.99
MAS	10x7x3	11.1	24.52	272.2	8,110	53.8	1416	49.95	5.20
MAS	11x7x3	11.1	28.87	320.5	7,748	51.4	1628.7	57.45	5.08
MAS	11x8x3	11.1	31.08	345.0	7,556	57.2	1663	58.66	4.82
APC	7x6-E	14.8	11.66	172.5	12,343	70.1	762.7	26.90	4.42
APC	8x4-E	14.8	13.09	193.7	12,209	46.2	969.9	34.21	5.01
APC	8x4.5-E	14.8	19.24	284.7	11,678	49.8	1425.9	50.30	5.01
APC	8x6-E	14.8	20.91	309.5	11,539	65.6	1163.7	41.05	3.76
APC	8x8-E	14.8	27.69	409.8	10,972	83.1	1072.4	37.83	2.62
APC	9x6-E	14.8	22.80	337.4	11,397	64.8	1404	49.52	4.16
APC	9x7.5-E	14.8	33.84	500.8	10,445	74.2	1428.1	50.37	2.85
APC	10x5-E	14.8	26.69	395.0	11,058	52.4	1757.5	61.99	4.45

Propeller Chart Color Code Explanation

- The prop is too small to get good performance from the motor. (Less than 50% power)
- The prop is sized right to get good power from the motor. (50 to 80% power)
- The prop can be used, but full throttle should be kept to short bursts. (80 to 100% power)
- The prop is too big for the motor and should not be used. (Over 100% power)

PLEASE NOTE:

The data contained in this prop chart is based on actual measurements taken in a controlled test environment. The test voltages used are based on a properly sized Li-Po battery for the current draw of the motor being tested. If you are using a larger than normal capacity battery, or a very high C-Rated battery, your actual voltages will be higher than those shown in this chart, and this will result in higher current draw for each prop used. You should always test your power system with a watt meter whenever a prop is used to ensure that you are not exceeding the recommended rating of the motor being used. The prop recommendations in this chart are based on the motor receiving adequate cooling throughout its operation. If your motor is being used inside a cowl, you must provide adequate cooling to the motor and make sure that the motor is not getting too hot during operation.