

Scorpion SII-3020-1110 Motor Propeller Data

Motor Wind 8-Turn Delta		Motor Kv 1110 RPM/Volt		No-Load Current I _o = 2.08 Amps @ 10v		Motor Resistance R _m = 0.016 Ohms		I Max 60 Amps	P Max (3S) 840 W
Outside Diameter 37.5 mm, 1.476in.		Body Length 45.7 mm, 1.799 in.		Total Shaft Length 74.5 mm, 2.933 in.		Shaft Diameter 4.98 mm, 0.197 in.		Motor Weight 166 gm, 5.81 oz	
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	8x8-E	11.1	36.88	409.4	10,944	82.9	1072	37.81	2.62
APC	9x4.5-E	11.1	25.57	283.8	11,600	49.4	1405.1	49.56	4.95
APC	9x6-E	11.1	30.03	333.3	11,255	63.9	1351.8	47.68	4.06
APC	9x7.5-E	11.1	45.64	506.6	10,506	74.6	1485.6	52.40	2.93
APC	9x9-E	11.1	51.17	568.0	10,198	86.9	1465.5	51.69	2.58
APC	10x5-E	11.1	35.80	397.4	11,034	52.2	1787.6	63.06	4.50
APC	10x6-E	11.1	40.25	446.8	10,790	61.3	1828.2	64.49	4.09
APC	10x7-E	11.1	46.41	515.1	10,541	69.9	1875.3	66.15	3.64
APC	11x5.5-E	11.1	50.28	558.1	10,252	53.4	2379.5	83.93	4.26
APC	11x7-E	11.1	58.14	645.4	9,830	65.2	2442	86.14	3.78
APC	11x8-E	11.1	63.22	701.7	9,578	63.5	2269.5	80.05	3.23
APC	13x4-E	11.1	55.65	617.7	9,974	56.7	2903	102.40	4.70
GEM	9x4.7-C	11.1	26.65	295.8	11,185	49.8	1455.1	51.33	4.92
GEM	10x4.5	11.1	45.11	500.7	10,569	45.0	2167.3	76.45	4.33
GEM	10x4.5-C	11.1	41.73	463.2	10,338	44.1	2041.6	72.01	4.41
GEM	11x4.7-C	11.1	53.83	597.6	9,737	43.3	2559.6	90.29	4.28
GEM	12x4.5-C	11.1	65.34	725.3	9,330	39.8	2701	95.27	3.72
GWS	9x5-DD	11.1	24.23	269.0	11,603	54.9	1380.6	48.70	5.13
GWS	10x6-DD	11.1	33.83	375.5	11,169	63.5	1748.3	61.67	4.66
GWS	10x6x3-DD	11.1	42.90	476.1	10,682	60.7	2128.8	75.09	4.47
GWS	11x7-DD	11.1	50.41	559.6	10,152	67.3	2394.1	84.45	4.28
MAS	8x6x3	11.1	25.91	287.6	11,605	65.9	1271.9	44.86	4.42
MAS	9x7x3	11.1	40.46	449.1	10,806	71.6	1849	65.22	4.12
MAS	10x5x3	11.1	36.60	406.2	11,010	52.1	1905.1	67.20	4.69
MAS	10x7x3	11.1	51.44	571.0	10,212	67.7	2304.3	81.28	4.04
MAS	10x7x3	11.1	61.15	678.7	9,766	64.7	2631	92.80	3.88
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	8x4-E	14.8	29.62	438.4	15,309	58.0	1580.8	55.76	3.61
APC	8x6-E	14.8	49.87	738.1	14,293	81.2	1810.6	63.87	2.45
APC	8x8-E	14.8	61.98	917.3	13,584	102.9	1656.3	58.42	1.81
APC	9x4.5-E	14.8	43.43	642.8	14,663	62.5	2366.5	83.47	3.68
APC	9x6-E	14.8	51.51	762.3	14,190	80.6	2220.3	78.32	2.91

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.