Scorpion SII-3014-1220 Motor Propeller Data

Motor Wind	Motor Kv	No-Load Current	Motor Resistance	I Max	P Max (3S)
11-Turn Delta	1220 RPM/Volt	Io = 1.64 Amps @ 10v	Rm = 0.018 Ohms	46 Amps	640 W

Outside Diameter	Body Length	Total Shaft Length	Shaft Diameter	Motor Weight
37.5 mm, 1.476in.	39.7 mm, 1.563 in.	68.5 mm, 2.697 in.	4.98 mm, 0.197 in.	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	7x6-E	11.1	17.85	198.1	12,691	72.1	823	29.03	4.15
APC	8x4-E	11.1	19.97	221.7	12,556	71.3	1038	36.61	4.68
APC	8x6-E	11.1	31.51	349.7	11,762	66.8	1214.2	42.83	3.47
APC	8x8-E	11.1	40.85	453.4	11,136	84.4	1112.8	39.25	2.45
APC	9x4.5-E	11.1	28.74	319.0	11,944	50.9	1497.6	52.83	4.69
APC	9x6-E	11.1	34.02	377.6	11,604	65.9	1473	51.96	3.90
APC	9x7.5-E	11.1	49.66	551.3	10,580	75.1	1487	52.45	2.70
APC	10x5-E	11.1	39.61	439.7	11,221	53.1	1824.4	64.35	4.15
APC	10x6-E	11.1	44.46	493.5	10,896	61.9	1828.7	64.50	3.71
GEM	9x4.7-C	11.1	30.09	334.0	11,872	52.8	1579.1	55.70	4.73
GEM	10x4.5	11.1	48.61	539.5	10,639	45.3	2183.8	77.03	4.05
GEM	10x4.5-C	11.1	44.62	495.3	10,369	44.2	2054	72.45	4.15
GWS	8x4-DD	11.1	14.90	165.4	12,909	48.9	893.4	31.51	5.40
GWS	8x4x3-DD	11.1	18.49	205.2	12,675	48.0	1021	36.01	4.98
GWS	9x5-DD	11.1	27.90	309.7	12,023	56.9	1499.7	52.90	4.84
GWS	10x6-DD	11.1	37.26	413.6	11,393	64.7	1830.9	64.58	4.43
GWS	10x6x3-DD	11.1	46.56	516.8	10,757	61.1	2187.4	77.16	4.23
GWS	11x7-DD	11.1	54.39	603.7	10,219	58.1	2391	84.34	3.96
MAS	8x6x3	11.1	28.64	317.9	11,951	67.9	1328.5	46.86	4.18
MAS	9x7x3	11.1	43.78	486.0	10,954	72.6	1875.4	66.15	3.86
MAS	10x5x3	11.1	40.10	445.1	11,224	53.1	1968.2	69.43	4.42
MAS	10x7x3	11.1	55.13	611.9	10,220	67.7	2278.8	80.38	3.72

Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	7x4-E	14.8	21.89	323.9	16,779	63.6	1222.5	43.12	3.77
APC	7x5-E	14.8	28.00	414.3	16,324	77.3	1236.1	43.60	2.98
APC	7x6-E	14.8	29.20	432.2	16,237	92.3	1345.3	47.45	3.11
APC	8x4-E	14.8	34.12	505.0	15,879	60.1	1698.6	59.92	3.36
APC	8x6-E	14.8	54.45	805.9	14,442	82.1	1843.2	65.02	2.29
APC	9x4.5-E	14.8	47.90	709.0	14,908	63.5	2475.1	87.31	3.49

Propeller Chart Color Code Explanation

The prop is to 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 higer 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.