

Scorpion SII-2215-900 Motor Propeller Data										
Motor Wind		Motor Kv		No-Load Current		Motor Resistance		I Max	P Max (3S)	
19-Turn Delta		900 RPM/Volt		I <sub>0</sub> = 0.52 Amps @ 10v		Rm = 0.142 Ohms		16 Amps	180 W	
Outside Diameter		Body Length		Total Shaft Length		Shaft Diameter		Motor Weight		
27.9 mm, 1.098in.		33.0 mm, 1.299 in.		52.0 mm, 2.047 in.		2.98 mm, 0.117 in.		68.8 gm, 2.43 oz		
Prop. Manf.	Prop. Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W	
APC	9x6-SF	7.4	6.96	51.5	5,051	28.7	396.9	14.00	7.71	
APC	10x3-SF	7.4	6.35	47.0	5,166	18.6	434.5	15.33	9.25	
APC	10x4.7-SF	7.4	7.05	52.2	5,033	22.4	466.6	16.46	8.94	
APC	10x7-E	7.4	7.06	52.2	5,024	33.3	405.7	14.31	7.77	
APC	10x7-SF	7.4	9.16	67.8	4,607	30.5	493.6	17.41	7.28	
APC	10x10-E	7.4	10.05	74.4	4,430	42.0	341.3	12.04	4.59	
APC	11x3.8-SF	7.4	7.07	52.3	5,020	18.1	486	17.14	9.28	
APC	11x4.7-SF	7.4	8.63	63.9	4,718	21.0	553.9	19.54	8.67	
APC	11x5-E	7.4	7.21	53.3	4,991	26.0	494.2	17.43	9.26	
APC	11x7-E	7.4	8.37	61.9	4,770	31.6	512.9	18.09	8.29	
APC	11x7-SF	7.4	11.07	81.9	4,217	28.0	602	21.23	7.35	
APC	11x8-E	7.4	9.25	68.5	4,588	34.8	455	16.05	6.64	
APC	11x8.5-E	7.4	9.48	70.1	4,539	36.5	503.3	17.75	7.16	
APC	11x10-E	7.4	11.20	82.9	4,191	39.7	398.6	14.06	4.81	
APC	12x3.8-SF	7.4	9.58	70.9	4,519	16.3	602.3	21.25	8.50	
APC	12x6-E	7.4	8.81	65.2	4,671	26.5	583.5	20.58	8.95	
APC	12x6-SF	7.4	12.02	89.0	4,015	22.8	660.9	23.31	7.43	
APC	12x8-E	7.4	10.70	79.2	4,300	32.6	525.4	18.53	6.64	
APC	12x8-SF	7.4	13.46	99.6	3,706	28.1	651.3	22.97	6.54	
APC	12x10-E	7.4	12.33	91.2	3,948	37.4	466.9	16.47	5.12	
APC	12x12-E	7.4	13.86	102.6	3,636	41.3	410.3	14.47	4.00	
APC	13x4-E	7.4	8.07	59.7	4,813	18.2	570.5	20.12	9.55	
APC	13x4.7-SF	7.4	87.3	4,086	18.0	690.5	24.36	7.91		
APC	13x6.5-E	7.4	11.04	81.7	4,219	26.0	660.8	23.31	8.09	
APC	13x8-E	7.4	11.82	87.5	4,057	30.7	662	23.35	7.57	
APC	13x10-E	7.4	14.03	103.8	3,589	34.0	507.3	17.89	4.89	
APC	14x7-E	7.4	12.41	91.8	3,911	25.9	720.3	25.41	7.84	
APC	14x8.5-E	7.4	13.44	99.5	3,689	27.9	709.2	25.02	7.13	
APC	14x10-E	7.4	100.8	3,594	35.0	705.9	24.89	7.00		
APC	14x12-E	7.4	16.55	122.4	3,016	34.3	454.2	16.02	3.71	
APC	15x4-E	7.4	10.89	80.6	4,208	15.9	714.7	25.21	8.87	
APC	15x6-E	7.4	12.93	95.7	3,817	21.7	791.5	27.92	8.27	
APC	15x8-E	7.4	13.84	102.4	3,588	27.2	757.8	26.73	7.40	
APC	15x10-E	7.4	15.52	114.8	3,157	29.9	696.6	24.57	6.07	
GEM	10x4.5	7.4	6.74	49.8	5,083	21.7	436.9	15.48	8.81	
GEM	11x4.7-C	7.4	8.55	63.3	4,716	21.0	550.8	19.43	8.70	
GEM	12x4.5-C	7.4	9.99	74.0	4,440	18.9	554.9	19.93	7.64	
GWS	10x4.7-SF	7.4	7.28	53.9	4,986	22.2	478.5	16.88	8.88	
GWS	10x6-DD	7.4	5.32	39.4	5,364	30.5	383.1	13.51	9.73	
GWS	10x8x3-DD	7.4	6.95	51.4	5,050	28.7	455.4	16.06	8.86	
GWS	10x8-HD	7.4	8.17	60.4	4,818	36.5	406	14.32	6.72	
GWS	10x8-SF	7.4	9.59	71.0	4,524	34.3	469.9	16.54	6.81	
GWS	11x4.7-SF	7.4	8.65	64.0	4,716	21.0	557.5	19.67	8.71	
GWS	11x7-DD	7.4	7.78	57.6	4,895	32.4	523	18.45	9.08	
GWS	12x8-DD	7.4	10.34	76.5	4,385	33.2	608.1	21.45	7.94	
MAS	10x5x3	7.4	6.06	44.9	5,226	24.7	394.6	13.92	8.79	
MAS	10x7x3	7.4	8.25	61.1	4,787	31.7	437	15.41	7.16	
MAS	11x7x3	7.4	9.45	69.9	4,537	30.1	538.7	19.00	7.70	
MAS	11x8x3	7.4	10.02	74.2	4,433	33.6	542	19.12	7.31	
MAS	12x6x3	7.4	10.24	75.8	4,384	24.9	590.7	20.84	7.80	
MAS	12x8x3	7.4	12.76	94.4	3,855	29.2	662.5	23.37	7.02	
MAS	13x8x3	7.4	13.47	99.7	3,724	28.2	685.5	24.18	6.88	
Prop. Manf.	Prop. Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W	
APC	8x3.8-SF	11.1	6.50	72.2	8,419	30.3	504.9	17.81	6.99	
APC	8x4-E	11.1	5.79	64.2	8,598	32.6	459.3	16.20	7.15	
APC	8x6-E	11.1	8.68	96.3	7,899	44.9	507.8	17.91	5.27	
APC	8x6-SF	11.1	10.39	114.8	7,489	42.6	579.7	20.45	5.06	
APC	8x8-E	11.1	10.79	119.9	7,372	25.8	483	17.04	4.03	
APC	9x3.8-SF	11.1	8.72	96.7	7,884	28.4	662	23.35	6.84	
APC	9x4.5-E	11.1	8.13	90.2	8,049	34.3	637.6	22.49	7.07	
APC	9x4.7-SF	11.1	8.88	98.6	7,854	35.0	674.6	23.80	6.84	
APC	9x6-E	11.1	9.36	103.9	7,735	43.9	638.9	22.54	6.15	
APC	9x7.4-E	11.1	12.42	137.9	6,978	49.6	531.2	22.26	4.58	
APC	9x7.5-SF	11.1	15.00	165.5	6,282	44.6	681.8	24.05	4.00	
APC	9x9-E	11.1	14.60	162.0	6,416	54.7	560.1	19.76	3.46	
APC	10x3.8-SF	11.1	12.42	137.8	6,933	24.9	854.6	30.14	6.20	
APC	10x4.7-SF	11.1	13.14	145.9	6,733	30.0	867.8	30.61	5.95	
APC	10x6-E	11.1	11.67	129.5	7,147	40.6	797.5	28.13	6.16	
APC	10x7-E	11.1	12.80	142.0	6,881	45.6	804.6	28.38	5.66	
APC	10x7-SF	11.1	16.35	191.4	5,939	39.4	862.6	30.43	4.75	
APC	10x10-E	11.1	16.76	186.3	5,790	54.8	586.8	20.70	3.15	
APC	11x3.8-SF	11.1	13.50	149.8	6,663	24.0	930.5	32.82	6.21	
APC	11x4.7-SF	11.1	15.39	170.9	6,165	27.4	1,003.40	35.39	5.87	
APC	11x5-E	11.1	13.33	148.0	6,706	34.9	926.3	32.67	6.26	
APC	11x7-E	11.1	14.87	165.1	6,317	41.9	912.9	32.20	5.53	
APC	11x8-E	11.1	15.68	174.0	6,084	46.1	899	31.36	5.11	
GEM	9x4.7	11.1	9.59	106.5	7,679	34.2	709.7	25.03	6.67	
GEM	9x4.7-C	11.1	8.95	99.3	7,531	33.5	674.2	23.78	6.79	
GEM	10x4.5	11.1	12.72	141.2	6,864	29.3	859	30.30	6.08	
GEM	10x4.7-C	11.1	12.17	135.1	6,810	29.0	839.1	29.60	6.21	
GEM	11x4.7-C	11.1	15.25	169.2	6,225	27.7	1,068.8	35.58	5.96	
GWS	8x4x3-DD	11.1	5.60	62.1	15,096	57.2	457	16.12	7.35	
GWS	9x5-DD	11.1	7.92	87.9	8,099	38.3	645.3	22.76	7.34	
GWS	9x5x3-DD	11.1	9.63	106.8	13,428	63.6	683.4	24.11	6.40	
GWS	9x7.5-HD	11.1	11.82	131.2	7,130	50.6	618.7	21.82	4.71	
GWS	10x6-DD	11.1	10.27	114.0	7,516	42.7	769.8	27.15	6.75	
GWS	10x6x3-DD	11.1	12.70	141.0	12,081	68.6	880.1	31.04	6.24	
GWS	10x8-HD	11.1	11.82	131.2	6,993	48.4	725.9	25.81	4.47	
GWS	11x4.7-SF	11.1	15.15	168.2	6,219	27.7	999.1	35.24	5.94	
GWS	11x7-DD	11.1	13.97	155.1	6,561	43.5	957.6	33.78	6.17	
GWS	12x8-DD	11.1	17.45	193.7	6,553	49.6	1,039	36.65	5.36	
MAS	7x4x3	11.1	4.74	52.6	8,839	33.5	288.8	10.19	5.49	
MAS	8x6x3	11.1	8.79	97.5	7,858	44.6	502.4	17.72	5.15	
MAS	9x7x3	11.1	12.28	136.3	6,947	46.1	671.1	23.67	4.92	
MAS	10x5x3	11.1	11.23	124.7	7,263	34.4	780.8	27.54	6.26	
MAS	10x7x3	11.1	14.37	159.6	6,432	42.6	860.4	30.35	5.39	
MAS	11x7x3	11.1	16.10	178.7	5,980	39.6	958.2	33.80	5.36	
Prop. Manf.	Prop. Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W	
APC	7x5-E	14.8	7.94	117.5	11,161	52.8	561.4	19.80	4.78	
APC	7x6-E	14.8	8.34	123.4	11,081	62.8	603.5	21.29	4.89	
APC	8x4-E	14.8	9.17	135.7	10,939	41.1	753.6	26.58	5.55	
APC	8x6-E	14.8	12.79	189.2	9,934	56.4	846.1	29.84	4.47	
APC	8x8-E	14.8	16.15	239.0	8,957	67.9	722.4	25.48	3.02	

**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 your 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 cow, you must provide adequate cooling to the motor and make sure that the motor is not getting too hot during operation.