

Scorpion SII-2212-885 Motor Propeller Data

Motor Wind 24-Turn Delta		Motor Kv 885 RPM/Volt	No-Load Current I ₀ = 0.41 Amps @ 10v	Motor Resistance R _m = 0.151 Ohms	1 Max 13 Amps	P Max (3S) 140 W			
Outside Diameter 27.9 mm, 1.098in.	Body Length 36.0 mm, 1.417 in.	Shaft Length 49.0 mm, 1.929 in.	Shaft Diameter 2.98 mm, 0.117 in.	Motor Weight 58.0 gm, 2.05 oz					
Prop Size	Prop Weight	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC 9w-E	7.4	4.79	35.4	5.421	30.8	307.5	10.85	6.68	
APC 9w-SF	7.4	6.65	49.2	4.899	27.8	368.7	13.01	7.49	
APC 9x1.5-E	7.4	6.54	48.4	4.923	35.0	298	10.51	6.16	
APC 9x1.5-SF	7.4	7.68	56.8	4.621	25.8	387	12.59	8.28	
APC 9x2-E	7.4	7.77	57.5	4.604	39.2	281.2	9.92	4.93	
APC 10x3.8-SF	7.4	6.11	45.2	5.059	18.2	407.5	14.37	9.02	
APC 10x4.7-SF	7.4	6.73	49.8	4.888	21.8	434	15.31	8.71	
APC 10x5-E	7.4	5.33	39.5	5.274	25.0	370.7	13.08	9.46	
APC 10x5-E	7.4	6.02	44.5	5.093	28.9	392.3	13.49	8.98	
APC 10x7-E	7.4	6.76	50.0	4.868	32.3	374.1	13.20	7.48	
APC 10x7-SF	7.4	8.50	62.9	4.391	29.1	451.1	15.91	7.18	
APC 10x10-E	7.4	9.19	68.0	4.216	39.9	303.3	10.70	4.46	
APC 11x3.8-SF	7.4	6.77	50.1	4.901	17.5	465.5	16.42	9.29	
APC 11x4.7-SF	7.4	7.97	59.0	4.514	20.1	498.5	17.58	8.45	
APC 11x5.5-E	7.4	6.90	51.1	4.830	25.2	460.9	16.26	9.02	
APC 11x7-E	7.4	7.91	58.5	4.569	30.3	474.7	16.74	8.11	
APC 11x7-SF	7.4	9.85	73.0	3.960	26.4	524.6	18.50	7.73	
APC 11x8-E	7.4	8.61	63.7	4.359	33.0	410.5	14.48	6.44	
APC 11x8.5-E	7.4	8.93	66.1	4.286	34.5	453.4	15.99	6.86	
APC 11x10-E	7.4	10.34	76.5	3.895	36.9	348.5	12.29	4.55	
APC 12x3.8-SF	7.4	8.89	64.3	4.313	15.5	534.3	18.85	8.31	
APC 12x4-E	7.4	8.21	60.9	4.451	25.3	528.7	18.65	8.70	
APC 12x6-SF	7.4	10.77	79.7	3.758	21.4	584	20.60	7.33	
APC 12x8-E	7.4	9.72	72.0	4.043	30.6	466.3	16.45	6.48	
APC 12x8-SF	7.4	11.85	87.7	3.422	25.9	557.7	19.67	6.36	
APC 12x10-E	7.4	10.85	81.0	3.683	34.8	397.5	14.62	4.91	
APC 12x12-E	7.4	12.23	90.5	3.307	37.6	340.8	12.62	3.77	
APC 13x4-E	7.4	7.58	56.1	4.625	17.5	518.5	18.29	9.25	
APC 13x4.7-SF	7.4	10.49	77.6	3.786	16.9	595.6	21.04	7.69	
APC 13x5.5-E	7.4	9.99	73.0	3.992	24.5	587.9	20.73	7.96	
APC 13x8-E	7.4	10.64	78.8	3.790	28.7	575.2	20.29	7.30	
APC 13x10-E	7.4	12.22	90.4	3.299	31.2	425.4	15.01	4.71	
APC 14x7-E	7.4	11.01	81.4	3.656	24.2	619.2	21.84	7.60	
APC 14x8.5-E	7.4	11.96	87.7	3.396	26.7	584.7	20.96	6.78	
APC 14x10-E	7.4	12.03	89.0	3.386	35.1	598.2	21.01	6.75	
APC 14x12-E	7.4	14.04	103.9	2.725	31.0	368.6	13.00	3.55	
APC 15x4-E	7.4	9.79	72.5	3.950	15.0	620.6	21.89	8.57	
APC 15x4-E	7.4	11.40	84.4	3.526	20.0	665.2	23.46	7.89	
APC 15x4-E	7.4	12.22	90.4	3.290	24.9	641.1	23.41	7.69	
APC 15x10-E	7.4	13.52	100.0	2.856	27.1	560.1	19.76	5.66	
GEM 9x4.7-C	7.4	4.81	35.6	5.351	23.8	323.3	11.72	9.35	
GEM 10x4.5-C	7.4	6.51	48.2	4.944	21.1	411.6	14.52	8.59	
GEM 11x4.7-C	7.4	8.00	59.2	4.532	22.2	564.2	17.78	8.52	
GEM 12x4.5-C	7.4	9.19	68.0	4.089	17.4	499.9	17.43	7.35	
GWS 9x7-SF	7.4	6.78	50.2	4.873	32.3	351.7	12.41	7.01	
GWS 10x6-DD	7.4	5.27	38.0	5.289	30.1	370.5	13.07	9.49	
GWS 10x6-DD	7.4	6.85	49.2	4.884	27.8	421.3	14.88	8.56	
GWS 10x8-HD	7.4	7.71	57.1	4.612	34.9	372.6	13.14	6.53	
GWS 10x8-SF	7.4	8.82	65.3	4.327	32.8	429.4	15.15	6.58	
GWS 11x4.7-SF	7.4	8.11	60.0	4.497	20.0	507.5	17.90	8.45	
GWS 11x7-DD	7.4	7.39	54.7	4.703	31.2	480.1	16.93	8.78	
GWS 12x8-DD	7.4	9.39	69.5	4.126	31.3	532.1	18.77	7.66	
MAS 8x6x3	7.4	4.66	34.5	5.469	31.1	227.1	8.01	6.59	
MAS 9x7x3	7.4	6.55	48.5	4.905	32.5	315.8	11.14	6.51	
MAS 10x5x3	7.4	5.90	43.7	5.110	24.2	373.8	13.19	8.56	
MAS 10x7x3	7.4	7.76	57.4	4.538	30.1	384.4	13.56	6.69	
MAS 11x7x3	7.4	8.77	64.9	4.295	28.5	485.6	17.13	7.49	
MAS 11x8x3	7.4	9.13	67.6	4.153	31.5	475.9	16.79	7.04	
MAS 12x6x3	7.4	9.43	69.8	4.105	23.3	475.9	16.79	6.82	
MAS 12x8x3	7.4	11.32	83.8	3.546	26.9	559.9	19.75	6.68	
MAS 13x8x3	7.4	11.77	87.3	3.425	25.9	357.4	12.61	4.10	
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	5.37	59.6	6.854	49.2	367.8	12.97	6.17
APC	7x6-SF	11.1	5.90	65.5	6.473	48.1	349.3	12.32	5.33
APC	8x3.8-SF	11.1	6.47	71.8	6.275	29.8	484.1	17.57	8.94
APC	8x4-E	11.1	5.74	63.8	6.524	32.3	450	15.87	7.96
APC	8x6-E	11.1	7.97	88.5	7.769	44.1	484.2	17.68	5.47
APC	8x6-SF	11.1	9.54	105.9	7.208	41.0	539.2	19.02	5.09
APC	8x8-E	11.1	10.93	111.3	7.042	59.3	440.5	15.24	3.96
APC	8x8-SF	11.1	8.23	91.4	6.485	48.5	497.7	17.79	6.76
APC	9x4.5-E	11.1	7.72	85.7	7.842	33.4	604.7	21.33	7.06
APC	9x4.7-SF	11.1	8.44	93.7	7.559	33.6	633.7	22.36	6.77
APC	9x6-E	11.1	8.77	97.3	7.470	42.4	595.6	20.90	6.09
APC	9x8-SF	11.1	11.85	131.5	6.329	35.9	653.3	23.64	4.97
APC	9x7.5-E	11.1	11.20	124.3	6.595	46.8	564.5	19.91	4.54
APC	9x7.5-SF	11.1	13.12	145.7	5.890	41.8	598.1	21.10	4.11
APC	8x8-E	11.1	12.86	143.7	6.020	51.9	491.1	17.52	3.42
APC	10x3-SF	11.1	11.14	123.6	6.570	39.7	760.2	26.81	6.19
APC	10x4.7-SF	11.1	11.86	131.7	6.381	28.4	778.4	27.46	5.91
APC	10x5-E	11.1	9.77	108.4	7.135	33.8	705	24.87	6.50
APC	10x6-E	11.1	10.67	118.4	6.795	38.6	713.8	25.19	6.03
APC	10x7-E	11.1	11.62	129.0	6.481	42.9	705	24.87	5.47
APC	10x7-SF	11.1	14.12	156.7	5.509	36.5	741	26.14	4.73
APC	10x10-E	11.1	14.51	161.0	5.296	50.2	488.8	17.24	3.04
APC	11x3.8-SF	11.1	11.96	132.7	6.265	22.6	816.8	28.97	6.17
APC	11x4.7-SF	11.1	13.54	150.3	5.727	25.5	858.3	30.28	5.71
APC	11x5.5-E	11.1	11.88	131.9	6.317	32.9	814.5	28.73	6.18
APC	11x7-E	11.1	13.12	145.6	5.862	38.9	804.2	28.37	5.52
APC	13x4-E	11.1	12.80	142.1	5.961	22.6	931.4	32.85	6.96
GEM	8x4.5	11.1	7.87	88.4	7.734	32.0	550.4	19.73	6.39
GEM	9x4.7	11.1	9.05	100.4	7.356	32.7	652.9	23.03	6.50
GEM	10x4.5	11.1	11.50	127.6	6.513	27.8	763.5	26.93	5.98
GEM	11x4.7-C	11.1	13.39	148.6	5.811	25.9	864.4	30.49	5.82
GEM	12x4.5-C	11.1	14.42	160.2	5.264	23.6	811.7	28.63	5.07
GWS	8x4-DD	11.1	4.71	52.3	6.873	33.6	414.2	14.61	7.92
GWS	8x4x3-DD	11.1	5.61	62.3	6.978	32.5	449.3	15.85	7.21
GWS	8x6-HD	11.1	7.33	81.4	7.965	45.3	466.6	16.46	5.73
GWS	9x5-DD	11.1	7.56	83.0	7.893	37.4	607.9	21.44	7.28
GWS	9x5x3-DD	11.1	9.02	100.2	7.349	34.8	642.5	22.66	6.41
GWS	9x7.5-HD	11.1	10.85	120.4	6.771	48.1	561.5	19.81	4.86
GWS	10x4.7-SF	11.1	11.95	132.7	6.320	28.1	790.4	27.88	5.96
GWS	10x6-DD	11.1	9.97	108.2	7.182	40.8	705.4	24.92	6.65
GWS	10x8x3-DD	11.1	11.45	127.1	6.466	39.7	788.3	27.10	6.05
GWS	10x8-HD	11.1	13.00	144.3	5.960	45.2	635.1	22.40	4.46
GWS	11x7-DD	11.1	12.40	137.6	6.145	40.7	830.1	29.28	6.03
GWS	12x8-DD	11.1	14.79	164.2	5.155	39.1	846.8	29.87	5.16
MAS	7x6x3	11.1	4.83	53.6	6.839	33.5	293.9	10.37	5.48
MAS	8x6x3	11.1	8.34	92.6	7.620	43.3	479.9	16.93	5.18
MAS	9x7x3	11.1	11.21	124.5	6.611	43.8	616.5	21.75	4.95
MAS	10x5x3	11.1	10.32	114.6	6.917	32.8	720.7	25.42	6.29
MAS	10x7x3	11.1	12.87	142.8	5.992	39.7	752.3	26.54	5.27
MAS	11x7x3	11.1	13.86	153.8	5.446	36.1	799.4	28.20	5.20
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	6x3.5-E	14.8	5.37	79.4	11.832	61.6	316	11.15	3.98
APC	7x4-E	14.8	6.32	93.6	11.491	43.5	548.1	19.65	5.77
APC	7x5-E	14.8	7.77	115.0	10.958	51.9	541	19.08	4.71
APC	7x6-E	14.8	8.13	120.3	10.820	61.5	585.4	20.65	4.87
APC	8x4-E	14.8	8.80	130.2	10.995	40.1	716	25.26	5.50
APC	8x5-E	14.8	11.57	171.2	9.534	54.2	767.2	27.66	4.48
APC	8x6-E	14.8	14.34	212.2	8.456	63.9	639.2	22.55	3.61
APC	6x4-E	14.8	11.45	169.5	9.535	36.1	923	32.56	5.45

Propeller Chart Color Code Explanation

- The prop is so 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