

Scorpion SII-2205-1490 Motor Propeller Data

Motor Wind 36-Turn Delta		Motor Kv 1490 RPM/Volt		No-Load Current I _o = 0.42 Amps @ 10v		Motor Resistance R _m = 0.188 Ohms		I Max 10 Amps	P Max (3S) 110 W
Outside Diameter 27.9 mm, 1.098in.		Body Length 23.0 mm, 0.906 in.		Total Shaft Length 42.0 mm, 1.654 in.		Shaft Diameter 2.98 mm, 0.117 in.		Motor Weight 35.4 gm, 1.25 oz	
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	6x5.5-E	7.4	4.84	35.8	8,702	45.3	166.1	5.86	4.64
APC	7x4-E	7.4	5.29	39.1	8,426	31.9	277.1	9.77	7.08
APC	7x4-SF	7.4	5.13	38.0	8,511	32.2	262.6	9.26	6.91
APC	7x5-E	7.4	6.31	46.7	7,858	37.2	271	9.56	5.81
APC	7x5-SF	7.4	6.18	45.7	7,929	37.5	276.5	9.75	6.05
APC	7x6-E	7.4	6.72	49.7	7,612	43.3	282.8	9.98	5.69
APC	7x6-SF	7.4	7.09	52.5	7,405	42.1	258.8	9.13	4.93
APC	8x3.8-SF	7.4	7.41	54.8	7,206	25.9	363	12.80	6.62
APC	8x4-E	7.4	6.93	51.3	7,480	28.3	342.6	12.08	6.68
APC	8x6-E	7.4	8.68	64.2	6,470	36.8	321.4	11.34	5.01
APC	8x6-SF	7.4	9.64	71.3	5,877	33.4	343.4	12.11	4.81
APC	8x8-E	7.4	10.21	75.6	5,539	42.0	259.5	9.15	3.43
APC	9x3.8-SF	7.4	8.77	64.9	6,393	23.0	409	14.43	6.30
APC	9x4.5-E	7.4	8.44	62.5	6,544	27.9	407.4	14.37	6.52
APC	9x4.7-SF	7.4	9.24	68.4	6,126	27.3	417.5	14.73	6.11
APC	9x6-E	7.4	9.32	69.0	6,025	34.2	374.1	13.20	5.43
APC	9x6-SF	7.4	11.21	82.9	4,936	28.0	380.1	13.41	4.58
APC	9x7.5-E	7.4	11.07	81.9	5,018	35.6	303.2	10.69	3.70
APC	10x3.8-SF	7.4	10.68	79.0	5,215	18.8	439.5	15.50	5.56
APC	10x5-E	7.4	9.86	73.0	5,682	26.9	420.1	14.82	5.76
APC	10x6-E	7.4	10.50	77.7	5,272	30.0	416.9	14.71	5.37
GEM	8x4.5-C	7.4	8.61	63.7	6,317	26.9	365.6	12.90	5.74
GEM	9x4.7-C	7.4	9.28	68.7	5,882	26.2	403.7	14.24	5.88
GEM	10x4.5-C	7.4	10.93	80.9	4,856	20.7	404.4	14.26	5.00
GWS	8x4-DD	7.4	5.92	43.8	8,056	30.5	331.9	11.71	7.58
GWS	8x4x3-DD	7.4	6.77	50.1	7,564	28.7	343.8	12.13	6.87
GWS	8x4.3-SF	7.4	7.39	54.7	7,202	29.3	356.2	12.56	6.51
GWS	8x4.5-SF	7.4	8.53	63.2	6,514	27.8	371.8	13.11	5.89
GWS	8x6-HD	7.4	8.11	60.0	6,696	38.0	324.4	11.44	5.41
GWS	8x6-SF	7.4	8.74	64.7	6,415	36.4	362.1	12.77	5.60
GWS	9x4.7-SF	7.4	9.00	66.6	6,264	27.9	410.4	14.48	6.16
GWS	9x5-DD	7.4	8.44	62.4	6,601	31.3	418.3	14.75	6.70
GWS	9x5x3-DD	7.4	9.45	69.9	5,954	28.2	408.2	14.40	5.84
GWS	9x7-SF	7.4	11.24	83.2	4,900	32.5	354.8	12.52	4.26
GWS	9x7.5-HD	7.4	10.64	78.8	5,243	37.2	331.5	11.69	4.21
GWS	10x4.5-SF	7.4	11.03	81.6	5,018	21.4	427.6	15.08	5.24
MAS	7x4x3	7.4	6.10	45.1	7,965	30.2	221.4	7.81	4.91
MAS	8x6x3	7.4	9.07	67.1	6,211	35.3	289.9	10.23	4.32
MAS	9x7x3	7.4	11.03	81.7	4,968	32.9	317.1	11.19	3.88
MAS	10x5x3	7.4	10.41	77.0	5,335	25.3	406.5	14.34	5.28
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	4.7x4.25-E	11.1	4.21	46.7	14,170	57.0	174.4	6.15	3.74
APC	4.75x4.75-E	11.1	4.52	50.1	13,955	62.8	171.8	6.06	3.43
APC	4.75x5.5-E	11.1	5.25	58.2	13,473	70.2	160.4	5.66	2.75
APC	5.5x4.5-E	11.1	5.98	66.4	13,008	55.4	256.4	9.04	3.86
APC	5.7x3-E	11.1	4.53	50.3	13,931	39.6	261.9	9.24	5.21
APC	6x3-E	11.1	5.05	56.1	13,603	38.6	263.7	9.30	4.70
APC	6x4-E	11.1	6.35	70.5	12,772	48.4	335.4	11.83	4.76
APC	6x5.5-E	11.1	8.20	91.0	11,647	60.7	299.6	10.57	3.29
APC	7x4-E	11.1	9.15	101.6	11,007	41.7	488.3	17.22	4.81
APC	7x4-SF	11.1	9.05	100.5	11,070	41.9	476.4	16.80	4.74
APC	7x5-E	11.1	10.50	116.6	10,094	47.8	443.6	15.65	3.81
APC	7x5-SF	11.1	10.37	115.1	10,216	48.4	465.8	16.43	4.05
GWS	5x3x3-DD	11.1	3.76	41.7	14,475	41.1	232.9	8.22	5.58
GWS	5x4.3-DD	11.1	3.91	43.3	14,370	58.5	250	8.82	5.77
GWS	6x3-DD	11.1	4.55	50.5	13,922	39.6	318.2	11.22	6.30
GWS	6x3x3-DD	11.1	5.18	57.5	13,518	38.4	336	11.85	5.84
GWS	7x3.5-DD	11.1	6.15	68.2	12,883	42.7	419.9	14.81	6.16
GWS	7x3.5x3-DD	11.1	7.43	82.5	12,084	40.1	454.5	16.03	5.51
GWS	8x4-DD	11.1	9.81	108.9	10,567	40.0	581.5	20.51	5.34
GWS	8x4x3-DD	11.1	11.11	123.3	9,656	36.6	572.3	20.19	4.64
MAS	7x4x3	11.1	9.98	110.8	10,396	39.4	419.4	14.79	3.79

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