Scorpion SII-2205-1585 Motor Propeller Data

Motor Wind	Motor Kv	No-Load Current	Motor Resistance	I Max	P Max (3S)
34-Turn Delta	1585 RPM/Volt	Io = 0.47 Amps @ 10v	Rm = 0.182 Ohms	10 Amps	110 W

Outside Diameter	Body Length	Total Shaft Length	Shaft Diameter	Motor Weight
27.9 mm, 1.098in.	23.0 mm, 0.906 in.	42.0 mm, 1.654 in.	2.98 mm, 0.117 in.	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	5.5x4.5-E	7.4	4.32	32.0	10,256	43.7	159	5.61	4.97
APC	6x4-E	7.4	4.73	35.0	9,995	37.9	200.4	7.07	5.73
APC	6x5.5-E	7.4	6.03	44.7	9,190	47.9	186.4	6.57	4.17
APC	7x4-E	7.4	6.53	48.3	8,879	33.6	307.6	10.85	6.37
APC	7x4-SF	7.4	6.41	47.4	8,915	33.8	293.2	10.34	6.18
APC	7x5-E	7.4	7.72	57.1	8,142	38.6	294.7	10.40	5.16
APC	7x5-SF	7.4	7.48	55.4	8,244	39.0	301.3	10.63	5.44
APC	7x6-E	7.4	8.05	59.6	7,934	45.1	309.6	10.92	5.19
APC	7x6-SF	7.4	8.39	62.1	7,677	43.6	278.6	9.83	4.49
APC	8x3.8-SF	7.4	8.79	65.0	7,395	26.6	381.2	13.45	5.86
APC	8x4-E	7.4	8.31	61.5	7,765	29.4	367.9	12.98	5.98
APC	8x6-E	7.4	10.11	74.8	6,557	37.3	332.7	11.74	4.45
APC	8x6-SF	7.4	11.09	82.0	5,908	33.6	342.6	12.08	4.18
APC	9x3.8-SF	7.4	10.26	75.9	6,493	23.4	424	14.96	5.58
GEM	8x4.5-C	7.4	9.93	73.5	6,623	28.2	385.9	13.61	5.25
GEM	9x4.7-C	7.4	10.36	76.7	6,320	28.1	419	14.78	5.47
GWS	6x3x3-DD	7.4	3.89	28.8	10,551	30.0	202.7	7.15	7.03
GWS	7x3.5-DD	7.4	4.54	33.6	10,108	33.5	248.6	8.77	7.39
GWS	7x3.5x3-DD	7.4	5.39	39.9	9,564	31.7	268.4	9.47	6.73
GWS	8x4-DD	7.4	7.19	53.2	8,426	31.9	362.3	12.78	6.81
GWS	8x4x3-DD	7.4	8.11	60.0	7,823	29.6	369.9	13.05	6.17
GWS	8x4.5-SF	7.4	9.93	73.5	6,623	28.2	385.9	13.61	5.25
GWS	8x6-HD	7.4	9.63	71.3	6,869	39.0	338.1	11.93	4.74
GWS	8x6-SF	7.4	10.14	75.0	6,496	36.9	368.5	13.00	4.91
GWS	9x4.7-SF	7.4	10.36	76.7	6,320	28.1	419	14.78	5.47
GWS	9x5-DD	7.4	9.81	72.6	6,763	32.0	428.8	15.13	5.91
GWS	9x5x3-DD	7.4	10.87	80.4	6,001	28.4	414.2	14.61	5.15
MAS	7x4x3	7.4	7.50	55.5	8,275	31.3	245.4	8.66	4.42
MAS	8x6x3	7.4	10.67	79.0	6,241	35.5	302.4	10.67	3.83
Prop Manf.	**Prop Size**	**Input Voltage**	**Motor Amps**	**Watts Input**	**Prop RPM**	**Pitch Speed**	**Thrust Grams**	**Thrust Ounces**	**Thrust Eff. Grams/W**
APC	4.5x4.1-E	11.1	4.58	50.9	15,760	61.2	199.4	7.03	3.92
APC	4.7x4.25-E	11.1	5.39	59.8	15,147	61.0	207.5	7.32	3.47
APC	4.75x4.75-E	11.1	5.79	64.3	14,855	66.8	200.5	7.07	3.12
APC	4.75x5.5-E	11.1	6.53	72.5	14,332	74.6	183.5	6.47	2.53
APC	5x5-E	11.1	6.56	72.8	14,302	67.7	203	7.16	2.79
APC	5.25x4.75-E	11.1	7.04	78.1	13,916	62.6	280.5	9.89	3.59
APC	5.5x4.5-E	11.1	7.27	80.6	13,735	58.5	288.6	10.18	3.58
APC	6x4-E	11.1	7.83	86.9	13,344	50.5	372.6	13.14	4.29
APC	6x5.5-E	11.1	9.56	106.1	12,176	63.4	329.3	11.62	3.10
APC	7x4-E	11.1	10.64	118.1	11,390	43.1	526.1	18.56	4.45
APC	7x4-SF	11.1	10.70	118.8	11,348	43.0	512	18.06	4.31
GWS	5x3x3-DD	11.1	4.88	54.1	15,537	44.1	273.5	9.65	5.05
GWS	5x4.3-DD	11.1	5.02	55.7	15,424	62.8	289	10.19	5.19
GWS	6x3-DD	11.1	5.83	64.7	14,809	42.1	366.5	12.93	5.66
GWS	6x3x3-DD	11.1	6.51	72.2	14,330	40.7	384.3	13.56	5.32
GWS	7x3.5-DD	11.1	7.63	84.7	13,487	44.7	473.8	16.71	5.59
GWS	7x3.5x3-DD	11.1	8.98	99.7	12,550	41.6	497.6	17.55	4.99
GWS	8x4-DD	11.1	11.53	128.0	10,654	40.4	601.9	21.23	4.70
MAS	7x4x3	11.1	11.52	127.9	10,657	40.4	449.7	15.86	3.52

Propeller Chart Color Code Explanation

- (Blue) The prop is to small to get good performance from the motor. (Less than 50% power)
- (Green) The prop is sized right to get good power from the motor. (50 to 80% power)
- (Yellow) The prop can be used, but full throttle should be kept to short bursts. (80 to 100% power)
- (Pink) 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.