

Cobra C-2221-16 Motor Propeller Data

Motor Wind 16 Turn Delta		Motor Kv 940 RPM/Volt		No-Load Current I _o = 0.69 Amps @ 10v		Motor Resistance R _m = 84 Ohms		I Max 25 Amps	P Max (3S) 280 W
Outside Diameter 27.65 mm, 1.089 in.		Body Length 37.00 mm, 1.457 in.		Total Shaft Length 54.00 mm, 2.126 in.		Shaft Diameter 4.00 mm, 0.157 in.		Motor Weight 88 gm, 3.10 oz	
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed MPH	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	8x6-E	11.1	10.68	118.5	8,603	48.9	640.4	22.59	5.40
APC	8x6-SF	11.1	13.65	151.5	8,136	46.2	714.5	25.20	4.72
APC	8x8-E	11.1	14.13	156.8	8,080	61.2	597.3	21.07	3.81
APC	9x3.8-SF	11.1	11.33	125.8	8,490	30.6	806.7	28.46	6.42
APC	9x4.5-E	11.1	10.27	114.0	8,674	37.0	738.5	26.05	6.48
APC	9x4.7-SF	11.1	11.42	126.8	8,471	37.7	821.2	28.97	6.48
APC	9x6-E	11.1	11.99	133.0	8,403	47.7	757.3	26.71	5.69
APC	9x6-SF	11.1	18.51	205.4	7,389	42.0	948.4	33.45	4.62
APC	9x7.5-E	11.1	16.62	184.5	7,721	54.8	804.4	28.37	4.36
APC	9x7.5-SF	11.1	16.62	184.5	7,721	54.8	804.4	28.37	4.36
APC	9x9-E	11.1	19.57	217.2	7,250	61.8	746	26.31	3.43
APC	10x3.8-SF	11.1	17.02	188.9	7,601	27.4	1099.2	38.77	5.82
APC	10x4.7-SF	11.1	18.08	200.7	7,461	33.2	1116.8	39.39	5.56
APC	10x5-E	11.1	13.86	153.8	8,120	38.4	943.5	33.28	6.13
APC	10x6-E	11.1	15.54	172.5	7,873	44.7	987.4	34.83	5.72
APC	10x7-E	11.1	17.38	193.0	7,581	50.3	1007.3	35.53	5.22
APC	10x7-SF	11.1	23.07	256.1	6,644	44.0	1134.8	40.03	4.43
APC	10x10-E	11.1	23.56	261.5	6,645	62.9	800.2	28.23	3.06
APC	11x3.8-SF	11.1	18.69	207.4	7,347	26.4	1221.2	43.08	5.89
APC	11x4.7-SF	11.1	21.54	239.1	6,878	30.6	1281.7	45.21	5.36
APC	11x5.5-E	11.1	18.31	203.2	7,457	38.8	1195.8	42.18	5.88
APC	11x7-E	11.1	20.77	230.5	7,048	46.7	1225	43.21	5.31
APC	11x8-E	11.1	21.96	243.7	6,847	51.9	1172.3	41.35	4.81
APC	11x8.5-E	11.1	23.12	256.6	6,644	53.5	1166.7	41.15	4.55
APC	11x10-E	11.1	25.63	284.5	6,214	58.8	981.8	34.63	3.45
APC	12x3.8-SF	11.1	24.41	271.0	6,393	23.0	1424	50.23	5.25
APC	12x6-E	11.1	21.92	243.3	6,834	38.8	1367.4	48.23	5.62
APC	12x8-E	11.1	25.57	283.8	6,202	47.0	1159.5	40.90	4.09
APC	13x4-E	11.1	20.06	222.7	7,152	27.1	1410.4	49.75	6.33
APC	13x6.5-E	11.1	26.42	293.3	6,045	37.2	1483.8	52.34	5.06
GEM	9x4.7	11.1	11.30	125.5	8,487	37.8	809	28.54	6.45
GEM	9x4.7-C	11.1	12.43	137.9	8,336	37.1	857.8	30.26	6.22
GEM	10x4.5	11.1	16.83	186.8	7,642	32.6	1077.6	38.01	5.77
GEM	10x4.5-C	11.1	16.93	187.9	7,644	32.6	1081.1	38.13	5.75
GEM	11x4.7-C	11.1	20.68	229.5	7,072	31.5	1293.4	45.62	5.64
GEM	12x4.5-C	11.1	23.41	259.9	6,639	28.3	1288.9	45.46	4.96
GWS	8x4x3-DD	11.1	7.03	78.0	9,172	34.7	537.7	18.97	6.89
GWS	9x5-DD	11.1	10.06	111.6	8,696	41.2	772.3	27.24	6.92
GWS	9x5x3-DD	11.1	12.61	140.0	8,303	39.3	852.5	30.07	6.09
GWS	10x6-DD	11.1	16.43	182.3	8,181	46.5	933.8	32.94	5.12
GWS	10x6x3-DD	11.1	17.03	189.0	7,634	43.4	1111.5	39.21	5.88
MAS	8x6x3	11.1	11.16	123.9	8,527	48.4	654.3	23.08	5.28
MAS	9x7x3	11.1	16.36	181.6	7,739	51.3	939.8	33.15	5.17
MAS	10x5x3	11.1	14.83	164.7	7,960	37.7	988.1	34.85	6.00
MAS	10x7x3	11.1	19.83	220.1	7,210	47.8	1149.7	40.55	5.22
MAS	11x7x3	11.1	22.62	251.1	6,729	44.6	1280.3	45.16	5.10
MAS	11x8x3	11.1	23.81	264.3	6,532	49.5	1274.3	44.95	4.82
MAS	12x6x3	11.1	24.37	270.5	6,509	37.0	1405	49.56	5.19
Prop Manf.	Prop Size	Input Voltage	Motor Amps	Watts Input	Prop RPM	Pitch Speed MPH	Thrust Grams	Thrust Ounces	Thrust Eff. Grams/W
APC	7x6-E	14.8	10.79	159.7	11,801	67.1	729.4	25.73	4.57
APC	8x4-E	14.8	11.82	174.9	11,622	44.0	909.6	32.08	5.20
APC	8x6-E	14.8	17.28	255.7	10,702	60.8	1033.6	36.46	4.04
APC	8x8-E	14.8	21.78	322.4	9,930	75.2	902.7	31.84	2.80
APC	9x4.5-E	14.8	16.36	242.2	10,840	46.2	1238.8	43.70	5.12
APC	9x6-E	14.8	18.79	278.1	10,441	59.3	1210.5	42.70	4.35
APC	9x7.5-E	14.8	25.27	373.9	9,363	66.5	1202.6	42.42	3.22
APC	9x9-E	14.8	27.98	414.1	8,770	74.7	1118.2	39.44	2.70
APC	10x5-E	14.8	21.44	317.4	9,996	47.3	1490.4	52.57	4.70
APC	10x6-E	14.8	23.39	346.1	9,652	54.8	1522.7	53.71	4.40
APC	10x7-E	14.8	26.03	385.2	9,107	60.4	1475	52.03	3.83
APC	11x5.5-E	14.8	27.20	402.6	8,886	46.3	1780.8	62.82	4.42
GEM	8x4.5-C	14.8	16.80	248.6	10,775	45.9	1157.5	40.83	4.66
GEM	9x4.7-C	14.8	18.92	280.0	10,404	46.3	1351.6	47.68	4.83
GEM	10x4.5-C	14.8	25.45	376.7	9,277	39.5	1645.5	58.04	4.37
GWS	8x4-DD	14.8	9.28	137.4	12,082	45.8	805.9	28.43	5.87
GWS	8x4x3-DD	14.8	11.37	168.3	11,719	44.4	905.2	31.93	5.38
GWS	9x5-DD	14.8	16.06	237.6	10,917	51.7	1255.5	44.29	5.28
GWS	9x5x3-DD	14.8	19.89	294.3	10,249	48.5	1348.5	47.57	4.58
GWS	10x6-DD	14.8	20.79	307.7	10,087	57.3	1479.5	52.19	4.81
GWS	10x6x3-DD	14.8	25.22	373.3	9,294	52.8	1676.6	59.14	4.49
MAS	8x6x3	14.8	16.94	250.7	10,743	61.0	1130.5	39.88	4.51
MAS	9x7x3	14.8	24.15	357.4	9,494	62.9	1476.1	52.07	4.13
MAS	10x5x3	14.8	22.24	329.2	9,820	46.5	1558.1	54.96	4.73
MAS	10x7x3	14.8	28.41	420.4	8,643	57.3	1683.5	59.38	4.00

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