

Work Area:											
Motor Data Sheet Info	Wt. grams	Kv	Idle Current Io	Motor Resistance	Amps In Max Con.	Watts In Max Con.	Rec Min # of Cells	Rec Max # of Cells	Stator Arms	Rotor Poles	
Hobbywing 1408/2850	15.8	2850	0.55	145m	10.29	206	4	5	9	12	

Assumed Idle Factors	Av Volts In	Idle I	Resistance	Watts
2C	7.4	0.55	0.145	4.07
3C	11.1	0.55	0.145	6.105

Work Area:											
Propellor Data Sheet Info	Mfg Name	Diameter	Pitch	# of Cells	Voltage	Motor Amps In	Watts In	Prop RPM	Thrust Grams	Kv	RE
1 Hobbywing 1408/2850	Gemfan EP	5.0	3.0	2	7.76	5.91	45.86	15922	235	2052	347
2 Hobbywing 1408/2850	Gemfan EP	6.0	3.0	2	7.62	7.66	58.37	13954	305	1831	239
3 Hobbywing 1408/2850	APC E	4.75	4.75	2	7.62	7.82	59.59	13978	163	1834	235
4 Hobbywing 1408/2850	APC E	5.1	4.5	2	7.53	10.46	78.76	11809	243	1568	150
5 Hobbywing 1408/2850	Gemfan EP	5.0	3.0	3	11.72	10.51	123.18	21893	441	1868	178
6 Hobbywing 1408/2850	Gemfan EP	6.0	3.0	3	11.58	13.24	153.32	18694	552	1614	122
7 Hobbywing 1408/2850	APC E	4.75	4.75	3	11.58	13.24	153.32	18766	294	1621	122
8 Hobbywing 1408/2850	APC E	5.1	4.5	3	11.43	16.43	187.79	15141	407	1325	81

Results:	Watts Output	System Eff.	(g/w) Eff.	Rec. ESC Amps Min	# LiPo Cells	Batt. mAh	Safe C-rate	Flight Time	Notes:
1 Hobbywing 1408/2850	42	91%	5.12	12	2	400	18	5	1) Flight time based on 100% Throttle continuous
2 Hobbywing 1408/2850	54	93%	5.23	12	2	400	24	5	
3 Hobbywing 1408/2850	55	93%	2.74	12	2	500	20	5	2) C-Rate Safety Factor is 1.25 times Amps in
4 Hobbywing 1408/2850	75	95%	3.09	12	2	600	22	5	
5 Hobbywing 1408/2850	117	95%	3.58	12	3	600	22	5	3) Choosing a smaller Batt requires Higher C-Rate!
6 Hobbywing 1408/2850	147	96%	3.60	12	3	700	24	5	
7 Hobbywing 1408/2850	147	96%	1.92	12	3	700	24	5	
8 Hobbywing 1408/2850	182	97%	2.17	12	3	900	23	5	

COLOR DEFINITION:

CAUTION!! HIGH AMP DRAW!!

CURRENT TO HIGH, NOT RECOMMENDED!!