

Hyperion Zs40 Series Motors - Prop Test Data

All data below was collected with previous generation LiPo, ESC, and Optical Tachometer. In some cases the batteries delivered relatively low voltage output (blue highlight). Use of new G3 Lipo packs may result in higher current flows and corresponding increase in rpm. Tests with Hyperion G3 LiPo, Atlas ESC, and Emeter II Phase Tachometer will be posted by June 1 2009.

Appearance of a propeller/battery combination does not necessarily indicate that it is suitable for the motor or a particular model. See the Zs Datasheet for recommended max currents and wattage limits.

HP-ZS4020-08						
Prop Size	Cells	V	V/Cell	A	W	RPM
APC 11x10E	3	11.22	3.74	47.0	528	8190
APC 12x10E	3	11.00	3.67	58.0	638	7725
APC 13x8E	3	11.12	3.71	50.9	566	7995
APC 13x10E	3	10.86	3.62	68.1	740	7335
APC 14x7E	3	10.96	3.65	57.0	626	7710
APC 14x10E	3	10.81	3.60	69.6	753	7290
APC 14x12E	3	10.64	3.55	81.0	862	6825
APC 15x7E	3	10.31	3.44	65.2	673	7170
APC 15x8E	3	10.67	3.56	76.6	818	6960
APC 15x10E	3	10.55	3.52	84.9	897	6675
APC 16x8E	3	10.48	3.49	87.7	920	6495
APC 10x10E	4	15.02	3.76	57.0	857	10770
APC 11x8E	4	15.00	3.75	56.8	853	10770
APC 11x10E	4	14.78	3.70	71.8	1061	10170
APC 12x8E	4	14.76	3.69	68.8	1016	10200
APC 12x10E	4	14.40	3.60	89.1	1284	9360
APC 13x8E	4	14.47	3.62	81.9	1185	9630

HP-ZS4020-12						
Prop Size	Cells	V	V/Cell	A	W	RPM
APC 13x10E	4	15.24	3.81	51.0	777	7500
APC 14x7E	4	15.36	3.84	41.5	637	7845
APC 14x10E	4	15.17	3.79	50.7	769	7440
APC 14x12E	4	15.02	3.76	60.2	905	7080
APC 15x8E	4	15.02	3.76	56.7	851	7170
APC 15x10E	4	14.90	3.73	64.5	962	6885
APC 16x8E	4	14.83	3.71	66.9	992	6780
APC 16x10E	4	14.71	3.68	73.7	1085	6555
APC 17x8E	4	14.67	3.67	70.4	1033	6585
APC 11x8E	5	19.50	3.90	35.2	686	10230
APC 11x10E	5	19.32	3.86	46.9	906	9720
APC 12x8E	5	19.43	3.89	44.1	857	9870
APC 12x10E	5	19.07	3.81	58.9	1124	9210
APC 13x8E	5	19.08	3.82	53.8	1028	9390
APC 13x10E	5	18.83	3.77	72.3	1365	8715
APC 14x7E	5	18.91	3.78	61.8	1169	9030
APC 14x10E	5	18.69	3.74	74.7	1397	8550
APC 15x7E	5	18.23	3.65	71.5	1304	8430
APC 15x8E	5	18.54	3.71	82.6	1532	8220

All data below was collected with previous generation LiPo. Use of new G3 Lipo packs may result in higher current flows and corresponding increase in rpm.

See the Zs Datasheet for recommended max currents and wattage limits.

HP-ZS4025-10						
Prop Size	Cells(S)	V	V/Cell	A	W	RPM
APC 18x10E	3	11.05	3.68	53.2	588	4965
APC 19x8E	3	11.03	3.68	52.9	584	4950
APC 19x10E	3	10.91	3.64	60.0	655	4740
APC 20x8E	3	10.96	3.65	55.5	609	4875
APC 20x10E	3	10.86	3.62	62.1	675	4665
APC 14x12E	4	14.96	3.74	56.4	845	6945
APC 15x8E	4	15.00	3.75	52.8	792	7050
APC 15x10E	4	14.86	3.72	60.3	896	6795
APC 16x8E	4	14.81	3.70	63.6	942	6705
APC 16x10E	4	14.71	3.68	69.5	1022	6495
APC 17x8E	4	14.67	3.67	65.4	960	6585
APC 17x10E	4	14.57	3.64	72.5	1057	6345
APC 18x8E	4	14.54	3.64	73.5	1068	6315
APC 18x10E	4	14.36	3.59	82.6	1187	5985
APC 12x10E	5	19.05	3.81	56.1	1069	8955
APC 13x8E	5	19.17	3.83	51.4	987	9120
APC 13x10E	5	18.71	3.74	66.7	1248	8520
APC 14x7E	5	18.86	3.77	55.6	1049	8895
APC 14x10E	5	18.62	3.72	68.9	1285	8445
APC 14x12E	5	18.36	3.67	78.2	1437	8070
APC 15x7E	5	18.24	3.65	66.6	1216	8235
APC 15x8E	5	18.45	3.69	76.6	1414	8145
APC 13x8E	6	22.16	3.69	66.7	1480	10080
APC 13x10E	6	21.71	3.62	88.9	1930	9270
APC 14x7E	6	21.92	3.65	74.3	1630	9750

HP-ZS4025-14						
Prop Size	Cells(S)	V	V/Cell	A	W	RPM
APC 19x10E	4	14.84	3.71	48.0	713	4860
APC 20x8E	4	14.91	3.73	42.7	637	5025
APC 20x10E	4	14.79	3.70	48.9	724	4830
APC 16x8E	5	19.24	3.85	45.8	883	6600
APC 16x10E	5	19.08	3.82	50.2	959	6420
APC 16x12E	5	18.96	3.79	55.9	1061	6195
APC 17x8E	5	19.07	3.81	47.9	915	6465
APC 17x10E	5	19.00	3.80	53.1	1010	6330
APC 18x8E	5	18.90	3.78	53.6	1014	6255
APC 18x10E	5	18.76	3.75	61.5	1155	6000
APC 19x8E	5	18.76	3.75	61.6	1156	6000
APC 14x12E	6	22.14	3.69	50.4	1117	7515
APC 15x8E	6	22.16	3.69	47.5	1053	7590
APC 15x10E	6	21.93	3.66	54.7	1201	7350
APC 16x8E	6	21.81	3.64	58.1	1267	7215
APC 16x10E	6	21.56	3.59	62.5	1348	6990
APC 17x8E	6	21.71	3.62	60.1	1306	7095
APC 13x10E	7	26.28	3.75	55.5	1460	8835
APC 14x7E	7	26.52	3.79	46.4	1232	9180
APC 14x10E	7	26.19	3.74	56.7	1487	8790
APC 14x12E	7	25.87	3.70	64.8	1677	8430
APC 15x8E	7	25.90	3.70	63.6	1647	8460

All data below was collected with previous generation LiPo. Use of new G3 Lipo packs may result in higher current flows and corresponding increase in rpm.

See the Zs Datasheet for recommended max currents and wattage limits.

HP-ZS4035-10						
Prop Size	Cells(S)	V	V/Cell	A	W	RPM
APC 16x10E	5	19.15	3.83	50.0	959	6450
APC 16x12E	5	19.00	3.80	55.4	1054	6270
APC 17x8E	5	19.08	3.82	46.5	888	6525
APC 17x10E	5	18.93	3.79	53.6	1015	6285
APC 17x12E	5	18.74	3.75	60.6	1137	6075
APC 18x8E	5	18.83	3.77	52.1	982	6285
APC 18x10E	5	18.62	3.72	60.8	1133	6030
APC 15x10E	6	22.26	3.71	54.8	1221	7455
APC 16x8E	6	22.04	3.67	56.2	1239	7350
APC 16x10E	6	21.90	3.65	63.2	1386	7170
APC 16x12E	6	21.64	3.61	70.1	1517	6900
APC 17x8E	6	22.05	3.68	61.6	1360	7185
APC 15x8E	7	26.41	3.77	64.4	1703	8715
APC 15x10E	7	25.99	3.71	71.3	1853	8385
APC 16x8E	7	25.30	3.61	74.5	1886	8010
APC 16x10E	7	25.01	3.57	83.8	2097	7710
APC 14x7E	8	29.13	3.64	55.3	1611	9810
APC 15x7E	8	28.54	3.57	63.9	1826	9360

HP-ZS4035-12						
Prop Size	Cells(S)	V	V/Cell	A	W	RPM
APC 16x10E	6	22.71	3.79	42.8	973	6585
APC 16x12E	6	22.47	3.75	48.2	1083	6390
APC 17x8E	6	22.69	3.78	39.2	891	6660
APC 17x10E	6	22.40	3.73	45.2	1014	6420
APC 17x12E	6	21.88	3.65	51.2	1122	6120
APC 18x8E	6	22.11	3.69	43.8	970	6360
APC 18x10E	6	21.78	3.63	50.9	1109	6105
APC 18x12E	6	21.80	3.63	59.4	1295	5910
APC 19x8E	6	21.54	3.59	49.2	1060	6045
APC 19x10E	6	21.47	3.58	57.0	1224	5865
APC 20x8E	6	22.57	3.76	56.8	1282	6225
APC 20x10E	6	22.31	3.72	62.9	1405	6000
APC 16x8E	7	26.38	3.77	50.4	1331	7530
APC 16x10E	7	26.23	3.75	55.5	1456	7350
APC 16x12E	7	26.00	3.71	61.8	1608	7140
APC 17x8E	7	26.11	3.73	53.5	1397	7350
APC 17x10E	7	25.90	3.70	59.0	1530	7170
APC 18x8E	7	25.78	3.68	59.0	1521	7125
APC 18x10E	7	25.56	3.65	67.4	1723	6855
APC 15x10E	8	28.89	3.61	55.3	1598	8145
APC 16x8E	8	28.59	3.57	58.2	1665	7980
APC 16x10E	8	28.49	3.56	64.5	1840	7845
APC 17x8E	8	28.34	3.54	62.4	1770	7800
APC 17x10E	8	27.86	3.48	69.8	1946	7440

All data below was collected with previous generation LiPo. In most cases the batteries delivered low voltage output (blue highlight) compared to the new G3 Lipo. Particularily in cases where V/cell is less than 3.45V, you should estimate 15%~25% higher currents if using new G3 packs.

Appearance of a propeller/battery combination does not necessarily indicate that it is suitable for the motor or a particular model. See the Zs Datasheet for recommended max currents and wattage limits.

Motor Type: HP-ZS4045-10						
Prop Size	Cells(S)	V	V/Cell	A	W	RPM
APC 17x10E	8	27.93	3.49	64.0	1790	7275
APC 17x12E	8	27.65	3.46	70.1	1937	7110
APC 18x10E	8	28.05	3.51	74.2	2081	7170
APC 18x12E	8	26.38	3.30	77.8	2053	6630
APC 19x8E	8	26.71	3.34	66.8	1785	6900
APC 19x10E	8	26.23	3.28	75.4	1979	6585
APC 19x12E	8	26.28	3.29	87.7	2305	6375
APC 20x10E	8	26.33	3.29	77.7	2047	6630
APC 15x10E	9	31.81	3.53	60.4	1922	8430
APC 16x8E	9	31.63	3.51	66.3	2099	8265
APC 16x10E	9	31.48	3.50	71.6	2255	8100
APC 16x12E	9	31.39	3.49	76.6	2407	7995
APC 17x8E	9	31.75	3.53	67.2	2134	8265
APC 17x10E	9	31.32	3.48	77.5	2428	7935
APC 17x12E	9	31.07	3.45	84.5	2627	7710
APC 18x8E	9	33.32	3.70	85.7	2856	8325
APC 18x10E	9	33.09	3.68	96.2	3185	8010
APC 15x8E	10	34.69	3.47	62.8	2180	9150
APC 15x10E	10	34.62	3.46	70.2	2431	8985
APC 16x8E	10	34.45	3.45	77.6	2673	8820
APC 16x10E	10	34.26	3.43	83.9	2876	8625
APC 16x12E	10	34.33	3.43	88.3	3032	8535
APC 17x8E	10	34.83	3.48	80.0	2787	8835
APC 17x10E	10	34.74	3.47	93.0	3231	8490
APC 17x12E	10	34.04	3.40	96.8	3296	8190
APC 18x8E	10	34.45	3.45	90.8	3130	8505
APC 18x10E	10	33.90	3.39	98.6	3343	8100

Motor Type: HP-ZS4045-12						
Prop Size	Cells(S)	V	V/Cell	A	W	RPM
APC 19x12E	8	27.84	3.48	62.6	1745	6015
APC 20x10E	8	27.70	3.46	54.8	1520	6120
APC 20x13E	8	26.74	3.34	65.9	1763	5595
APC 18x10E	9	31.87	3.54	60.1	1916	6975
APC 18x12E	9	31.08	3.45	68.3	2124	6630
APC 19x8E	9	31.41	3.49	57.1	1796	6930
APC 19x10E	9	31.08	3.45	65.4	2034	6705
APC 19x12E	9	30.59	3.40	75.7	2316	6375
APC 20x10E	9	30.62	3.40	66.1	2025	6570
APC 20x13E	9	29.97	3.33	81.0	2427	6030
APC 17x12E	10	35.15	3.52	68.9	2425	7560
APC 18x8E	10	35.67	3.57	62.3	2222	7830
APC 18x10E	10	34.95	3.50	69.4	2426	7500
APC 18x12E	10	33.54	3.35	78.5	2633	6975
APC 19x8E	10	34.00	3.40	65.5	2230	7350
APC 19x10E	10	33.40	3.34	75.0	2506	7005
APC 19x12E	10	34.28	3.43	92.4	3168	6870
APC 20x10E	10	34.04	3.40	80.3	2733	7050
APC 20x13E	10	33.30	3.33	93.4	3113	6510