



Specification

Test Item	Long Shaft KV160	Weight (Incl. Cable)	780g
Motor Dimensions	Φ81.4*66.9mm	Internal Resistance	24mΩ
Lead	Enameled Wire 100mm	Configuration	24N22P
Shaft Diameter	IN : 10mm OUT : 10mm	Rated Voltage(Lipo)	10-12S
Idle Current(10V)	3.1A	Peak Current(180s)	105A
Max Power (180S)	4800W/12S		
Test Item	Long Shaft KV190	Weight (Incl. Cable)	780g
Motor Dimensions	Φ81.4*66.9mm	Internal Resistance	16mΩ
Lead	Enameled Wire 100mm	Configuration	24N22P
Shaft Diameter	IN : 10mm OUT : 10mm	Rated Voltage(Lipo)	10-12S
Idle Current(10V)	3.5A	Peak Current(180s)	135A
Max Power (180S)	6000W/12S		

Test Data

Type	Propeller	Throttle	Voltage (V)	Current (A)	Power (W)	RPM	Torque (N*m)	Thrust (g)	Efficiency (g/W)	Operating Temperature (°C)
	21*10	40%	44.31	4.80	212.87	2893	0.539	1766	8.30	80 (Ambient Temperature: /)
		45%	44.27	6.25	276.86	3225	0.624	2212	7.99	
		50%	44.22	8.79	388.73	3629	0.795	2814	7.25	
		55%	44.16	11.35	501.16	4000	0.965	3429	6.84	
		60%	44.11	13.79	608.49	4326	1.146	4022	6.61	
		65%	44.04	16.93	745.62	4639	1.293	4622	6.20	
		70%	43.95	20.86	916.88	4988	1.501	5365	5.85	
		75%	43.83	26.42	1158.06	5373	1.773	6280	5.42	
		80%	43.71	32.04	1400.68	5745	2.061	7144	5.10	
		90%	43.46	44.15	1918.79	6360	2.592	8933	4.66	
		100%	43.16	58.20	2511.99	6896	3.114	10676	4.25	
		40%	47.93	5.34	255.98	3105	0.597	2045	7.99	
		45%	47.89	6.96	333.46	3434	0.704	2501	7.50	
		50%	47.83	9.69	463.32	3876	0.896	3196	6.90	
		55%	47.73	13.03	621.96	4291	1.121	3935	6.33	
		60%	47.71	15.53	741.01	4633	1.280	4539	6.13	

Table 1: Thermal Performance Data for Various Panel Configurations and Ambient Temperatures	21*10	65%	47.64	18.81	896.24	4960	1.464	5209	5.81	/
		70%	47.56	23.04	1095.60	5339	1.732	6096	5.56	
		75%	47.37	31.09	1472.55	5816	2.125	7315	4.97	
		80%	47.25	36.56	1727.56	6144	2.395	8247	4.77	
		90%	46.95	50.68	2379.68	6789	2.998	10299	4.33	
		100%	46.51	71.24	3313.26	7109	3.711	12494	3.77	
	22*10	40%	44.41	5.70	253.30	2850	0.635	2071	8.18	88 (Ambient Temperature: 70°F)
		45%	44.37	7.49	332.34	3183	0.809	2608	7.85	
		50%	44.30	10.25	454.21	3580	1.022	3269	7.20	
		55%	44.23	13.82	611.41	3967	1.215	4002	6.55	
		60%	44.15	17.18	758.35	4291	1.425	4723	6.23	
		65%	44.10	20.38	898.65	4591	1.631	5427	6.04	
		70%	43.97	26.02	1144.24	4934	1.923	6373	5.57	
		75%	43.85	32.03	1404.60	5312	2.209	7432	5.29	
		80%	43.70	39.36	1720.07	5669	2.627	8549	4.97	
		90%	43.39	54.11	2347.54	6261	3.240	10526	4.48	
		100%	43.05	70.38	3029.80	6780	3.864	12496	4.12	
	22*10	40%	47.99	6.29	301.96	3057	0.732	2426	8.03	/
		45%	47.96	8.27	396.60	3412	0.928	2997	7.56	
		50%	47.86	11.62	556.40	3831	1.138	3770	6.78	
		55%	47.80	15.20	726.46	4237	1.372	4613	6.35	
		60%	47.72	18.93	903.28	4585	1.623	5446	6.03	
		65%	47.64	23.17	1103.76	4909	1.903	6315	5.72	
		70%	47.50	29.04	1379.32	5278	2.178	7317	5.31	
		75%	47.32	38.04	1800.27	5747	2.716	8753	4.86	
		80%	47.17	45.06	2125.28	6063	3.013	9742	4.58	
		90%	46.83	61.51	2880.40	6678	3.723	12037	4.18	
		100%	46.42	81.47	3781.47	7213	4.499	14447	3.82	
	23*10	40%	37.07	4.85	179.66	2404	0.462	1631	9.08	78 (Ambient Temperature: 70°F)
		45%	37.02	6.54	242.14	2685	0.585	2052	8.48	
		50%	36.96	9.11	336.65	3038	0.769	2642	7.85	
		55%	36.89	12.16	448.81	3349	0.961	3262	7.27	
		60%	36.83	15.32	564.24	3617	1.110	3832	6.79	
65%		36.78	18.07	664.53	3889	1.284	4471	6.73		
70%		36.70	22.32	819.19	4174	1.499	5225	6.38		
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AT7224 KV160		75%	36.57	27.90	1020.42	4475	1.739	6058	5.94	
		80%	36.48	32.61	1189.50	4732	1.954	6810	5.72	
		90%	36.22	45.16	1635.72	5231	2.439	8469	5.18	
		100%	35.90	60.17	2160.31	5722	2.880	10050	4.65	
	23*10	40%	42.00	5.81	243.81	2691	0.603	2016	8.27	/
		45%	41.95	7.64	320.56	3000	0.754	2542	7.93	
		50%	41.87	10.82	452.90	3383	0.959	3269	7.22	
		55%	41.80	14.73	615.52	3738	1.166	4019	6.53	
		60%	41.72	18.23	760.66	4044	1.387	4821	6.34	
		65%	41.64	22.10	920.32	4322	1.622	5609	6.10	
		70%	41.53	27.22	1130.31	4648	1.888	6460	5.72	
		75%	41.41	33.49	1386.94	4979	2.176	7520	5.42	
		80%	41.26	40.27	1661.69	5261	2.458	8508	5.12	
		90%	40.92	57.16	2338.69	5858	3.045	10599	4.53	
		100%	40.56	74.08	3004.27	6335	3.587	12486	4.16	
	23*10	40%	44.24	6.26	276.99	2816	0.678	2252	8.13	86 (Ambient Temperature: /)
		45%	44.19	8.38	370.42	3139	0.844	2845	7.68	
		50%	44.13	11.56	510.31	3531	1.074	3628	7.11	
		55%	44.03	15.77	694.46	3904	1.332	4481	6.45	
		60%	43.96	19.48	856.35	4223	1.560	5292	6.18	
		65%	43.86	23.88	1047.27	4528	1.782	6082	5.81	
		70%	43.73	29.77	1301.86	4857	2.071	7066	5.43	
		75%	43.60	36.62	1596.54	5209	2.383	8176	5.12	
		80%	43.42	45.32	1967.73	5551	2.717	9386	4.77	
		90%	43.08	61.82	2663.09	6121	3.306	11502	4.32	
		100%	42.69	80.29	3427.47	6620	3.893	13628	3.98	
	23*10	40%	47.87	7.06	338.01	3017	0.803	2627	7.77	/
		45%	47.82	9.31	445.30	3356	0.982	3303	7.42	
		50%	47.73	13.36	637.77	3770	1.263	4227	6.63	
		55%	47.63	17.84	849.98	4161	1.565	5234	6.16	
		60%	47.54	22.28	1059.42	4501	1.835	6196	5.85	
		65%	47.44	26.97	1279.61	4821	2.089	7098	5.55	
		70%	47.32	33.44	1582.04	5181	2.397	8181	5.17	
		75%	47.07	44.46	2092.95	5622	2.829	9776	4.67	
		80%	46.93	51.86	2433.90	5924	3.145	10876	4.47	
		90%	46.52	71.24	3313.98	6511	3.845	13337	4.02	

	100%	46.05	93.17	4290.46	7028	4.524	15732	3.67	
24*10	40%	36.93	5.21	192.58	2386	0.570	1862	9.67	74 (Ambient Temperature: /)
	45%	36.89	6.92	255.28	2664	0.681	2302	9.02	
	50%	36.84	9.64	355.22	3015	0.873	2934	8.26	
	55%	36.74	13.30	488.44	3326	1.033	3780	7.74	
	60%	36.70	16.06	589.29	3596	1.193	4344	7.37	
	65%	36.62	19.43	711.53	3858	1.352	4885	6.87	
	70%	36.52	24.25	885.55	4148	1.592	5768	6.51	
	75%	36.40	29.96	1090.57	4437	1.924	6881	6.31	
	80%	36.29	35.28	1280.42	4692	2.201	7698	6.01	
	90%	36.02	48.54	1748.45	5181	2.844	9416	5.39	
	100%	35.66	65.48	2335.30	5638	3.170	11213	4.80	
24*10	40%	41.92	6.22	260.94	2669	0.670	2305	8.84	/
	45%	41.88	8.24	345.20	2974	0.836	2861	8.29	
	50%	41.80	11.85	495.18	3358	1.052	3835	7.75	
	55%	41.69	16.69	695.92	3706	1.255	4654	6.69	
	60%	41.63	19.73	821.19	4013	1.489	5499	6.70	
	65%	41.55	23.65	982.63	4301	1.806	6395	6.51	
	70%	41.43	29.46	1220.57	4610	2.118	7433	6.09	
	75%	41.27	36.74	1516.18	4941	2.505	8536	5.63	
	80%	41.13	43.86	1804.14	5214	2.847	9557	5.30	
	90%	40.74	62.47	2544.92	5789	3.372	11807	4.64	
	100%	40.37	80.20	3237.87	6253	4.009	13916	4.30	
24*10	40%	44.34	6.77	300.20	2807	0.740	2613	8.70	87 (Ambient Temperature: /)
	45%	44.29	8.94	395.88	3127	0.944	3245	8.20	
	50%	44.21	12.58	556.16	3525	1.212	4090	7.36	
	55%	44.11	17.25	760.67	3891	1.472	5007	6.58	
	60%	44.03	21.25	935.48	4212	1.654	6050	6.47	
	65%	43.94	25.61	1125.34	4504	2.027	7004	6.22	
	70%	43.80	32.06	1404.22	4834	2.404	8133	5.79	
	75%	43.63	40.20	1753.94	5179	2.782	9373	5.34	
	80%	43.42	50.11	2176.02	5508	2.915	10542	4.84	
	90%	43.05	68.04	2928.99	6063	3.795	12990	4.43	
	100%	42.61	88.56	3773.52	6529	4.475	15404	4.08	
	40%	47.89	7.54	361.11	2999	0.868	2966	8.21	

	22*10	55%	41.54	20.70	859.97	4444	1.487	5193	6.04	/
		60%	41.43	25.66	1062.94	4798	1.764	6059	5.70	
		65%	41.34	30.44	1258.42	5120	2.033	6867	5.46	
		70%	41.12	41.15	1692.37	5612	2.484	8345	4.93	
		75%	40.93	50.13	2051.85	5971	2.847	9473	4.62	
		80%	40.75	58.56	2386.68	6288	3.140	10413	4.36	
		90%	40.28	80.81	3254.88	6882	3.872	12908	3.97	
		100%	39.75	105.26	4184.19	7394	4.565	15224	3.64	
	22*10	40%	44.29	9.27	410.71	3402	0.862	3022	7.36	88 (Ambient Temperature: /)
		45%	44.22	12.29	543.49	3784	1.055	3724	6.85	
		50%	44.13	16.71	737.30	4233	1.343	4675	6.34	
		55%	44.02	22.21	977.58	4671	1.653	5705	5.84	
		60%	43.90	27.56	1210.00	5034	1.953	6611	5.46	
		65%	43.71	36.66	1602.21	5502	2.359	7925	4.95	
		70%	43.55	44.55	1940.16	5887	2.742	9124	4.70	
		75%	43.31	55.26	2393.45	6272	3.132	10390	4.34	
		80%	43.12	64.75	2792.01	6589	3.485	11599	4.15	
		90%	42.59	89.21	3799.33	7197	4.262	14221	3.74	
		100%	42.01	115.89	4868.09	7725	5.011	16542	3.40	
	22*10	40%	47.80	10.41	497.53	3584	0.918	3320	6.67	/
		45%	47.73	13.56	647.38	4049	1.209	4266	6.59	
		50%	47.62	18.41	876.76	4508	1.517	5304	6.05	
		55%	47.49	25.17	1195.14	4973	1.910	6518	5.45	
		60%	47.30	34.04	1609.78	5490	2.351	7904	4.91	
		65%	47.15	41.12	1938.57	5855	2.724	9064	4.68	
		70%	46.94	51.11	2399.23	6269	3.153	10453	4.36	
		75%	46.71	62.32	2910.67	6669	3.585	11916	4.09	
		80%	46.47	73.37	3408.99	6999	3.979	13203	3.87	
		90%	45.85	101.59	4658.39	7622	4.864	16113	3.46	
		100%	45.14	133.15	6010.33	8139	5.893	17722	2.95	
Note: Motor temperature is motor surface temperature at 100% throttle running 3mins. (Date above based on benchtest are for reference only, comparion with that of other motor types is not recommended.)										

Packing List



Before using this product, please check if all the items listed above are included in the packaging. If there are any missing items, please contact our online customer service or leave message to "onlinesales@ligpower.com" in time.