



Specification

Motor Size	$\Phi 47.4 \times 38.7$ mm	Stator	Imported silicon steel sheet; Anti-rust treatment; 180°C high temperature-resisting coatings
Configuration	12N14P	Shaft Diameter	IN : 6mm OUT : 4
Bearing	686ZZ/696ZZ	Magnet Level	N45SH
Lead Cable	16AWG*150mm	Copper Wire	220°C high temperature resistance: Level C
Coil Insulation Test	500V/5s	Centrifugal Cooling Design	YES
Rotor Dynamic Balance Standard	≤ 5 Mg		
KV	320	Rated Voltage (LiPo)	6S
Idle Current(10V)	1.1A	Propeller Recommendation	P15 17"/T16*8"
Peak Current (180s)	40A	Motor Weight (Incl. Cable)	172g
Max.Power (180s)	910W	Package Weight	275g
Internal Resistance	94m Ω		
KV	420	Rated Voltage (LiPo)	6S
Idle Current(10V)	1.4A	Propeller Recommendation	P15*5"

Peak Current (180s)	54A	Motor Weight (Incl. Cable)	172g
Max.Power (180s)	1210W	Package Weight	275g
Internal Resistance	60mΩ		

Fixed wing Recommendation

KV	MN4112 KV320	Propeller	T16*8"
ESC	AT 75A 6S	Battery(LiPo) /Voltage	6S(4.2V/pc)/22-25V
Thrust/motor(kg)	1.1kg	MTOW (1 motor/2 motors) (kg)	3.5/7kg

Multi-rotor/VTOL Recommendation

KV	MN4112 KV320	Propeller	P15*5"
ESC	FLAME 60A 12S V2.0	Battery(LiPo) /Voltage	6S(4.2V/pc)/22-25V
Thrust/motor(kg)	0.8kg	MTOW (1 motor/2 motors) (kg)	3.2kg
KV	MN4112 KV320	Propeller	P16*5.4"
ESC	FLAME 60A 12S V2.0	Battery(LiPo) /Voltage	6S(4.2V/pc)/22-25V
Thrust/motor(kg)	1.0kg	MTOW (1 motor/2 motors) (kg)	4.0kg
KV	MN4112 KV320	Propeller	P17*5.8"
ESC	FLAME 60A 12S V2.0	Battery(LiPo) /Voltage	6S(4.2V/pc)/22-25V
Thrust/motor(kg)	1.25kg	MTOW (1 motor/2 motors) (kg)	5.0kg
KV	MN4112 KV420	Propeller	P15*5"
ESC	FLAME 60A 12S V2.0	Battery(LiPo) /Voltage	6S(4.2V/pc)/22-25V
Thrust/motor(kg)	1.25kg	MTOW (1 motor/2 motors) (kg)	5.0kg

Note: For coaxial configurations, please consider a thrust loss of 25%

Test Data

Type	Propeller	Throttle	Voltage (V)	Thrust (g)	Torque (N*m)	Current (A)	RPM	Power (W)	Efficiency (g/W)	Operating Temperature (°C)
		40%	23.47	566	0.10	1.96	3196	46	12.31	79
		42%	23.46	600	0.11	2.14	3298	50	11.93	
		44%	23.46	645	0.12	2.37	3417	56	11.63	
		46%	23.46	691	0.13	2.56	3523	60	11.48	
		48%	23.45	739	0.14	2.82	3641	66	11.18	
		50%	23.44	789	0.14	3.05	3745	72	11.02	
		52%	23.43	838	0.15	3.34	3859	78	10.69	
		54%	23.43	888	0.16	3.59	3969	84	10.56	
		56%	23.42	940	0.17	3.89	4085	91	10.31	
		58%	23.41	1000	0.18	4.26	4208	100	10.02	
		60%	23.41	1049	0.19	4.57	4313	107	9.82	

MN4112 KV320	P15*5"	62%	23.40	1108	0.20	4.89	4431	114	9.68	(Ambient Temperature: 15°C)
		64%	23.39	1171	0.21	5.28	4547	124	9.47	
		66%	23.38	1226	0.22	5.68	4663	133	9.23	
		68%	23.38	1286	0.23	6.05	4774	141	9.10	
		70%	23.37	1347	0.24	6.50	4886	152	8.87	
		72%	23.36	1416	0.25	6.95	4999	162	8.72	
		74%	23.35	1482	0.27	7.43	5112	174	8.54	
		76%	23.34	1535	0.28	7.85	5215	183	8.38	
		78%	23.33	1597	0.29	8.34	5325	195	8.21	
		80%	23.32	1671	0.30	8.90	5437	208	8.05	
		90%	23.27	2035	0.36	11.82	5956	275	7.40	
		100%	23.19	2551	0.46	16.59	6632	385	6.63	
MN4112 KV320	P16*5.4"	40%	23.94	706	0.14	2.49	3207	60	11.83	82 (Ambient Temperature: 15°C)
		42%	23.94	757	0.15	2.73	3310	65	11.58	
		44%	23.93	816	0.16	3.00	3423	72	11.37	
		46%	23.93	873	0.17	3.28	3533	79	11.11	
		48%	23.92	932	0.18	3.59	3648	86	10.85	
		50%	23.91	991	0.19	3.89	3749	93	10.66	
		52%	23.90	1061	0.20	4.28	3862	102	10.38	
		54%	23.90	1127	0.21	4.63	3968	111	10.20	
		56%	23.89	1195	0.23	5.03	4082	120	9.95	
		58%	23.88	1264	0.24	5.46	4197	130	9.70	
		60%	23.87	1327	0.25	5.87	4302	140	9.47	
		62%	23.86	1408	0.26	6.33	4415	151	9.32	
		64%	23.85	1486	0.28	6.82	4528	163	9.13	
		66%	23.84	1568	0.30	7.37	4640	176	8.92	
		68%	23.83	1652	0.31	7.94	4744	189	8.73	
		70%	23.82	1725	0.33	8.49	4849	202	8.53	
		72%	23.81	1805	0.34	9.07	4957	216	8.36	
		74%	23.80	1896	0.36	9.75	5066	232	8.17	
		76%	23.78	1970	0.37	10.39	5169	247	7.97	
		78%	23.78	2052	0.38	10.93	5269	260	7.89	
80%	23.76	2138	0.40	11.65	5376	277	7.72			
90%	23.70	2577	0.48	15.49	5872	367	7.02			
100%	23.60	3179	0.59	21.69	6495	512	6.21			

MN4112 KV320	P17*5.8"	40%	23.93	867	0.18	3.06	3150	73	11.83	81 (Ambient Temperature: 15°C)
		42%	23.93	930	0.19	3.36	3249	80	11.56	
		44%	23.91	1005	0.20	3.74	3360	89	11.23	
		46%	23.91	1075	0.22	4.09	3462	98	11.00	
		48%	23.90	1141	0.23	4.48	3573	107	10.67	
		50%	23.89	1208	0.24	4.87	3674	116	10.38	
		52%	23.88	1284	0.25	5.27	3777	126	10.21	
		54%	23.87	1362	0.27	5.77	3888	138	9.89	
		56%	23.86	1439	0.28	6.22	3985	148	9.70	
		58%	23.85	1525	0.30	6.74	4094	161	9.49	
		60%	23.84	1604	0.31	7.28	4197	174	9.23	
		62%	23.82	1687	0.33	7.85	4299	187	9.02	
		64%	23.82	1775	0.35	8.43	4406	201	8.84	
		66%	23.80	1869	0.37	9.10	4515	217	8.63	
		68%	23.79	1954	0.38	9.77	4617	233	8.40	
		70%	23.78	2049	0.40	10.47	4714	249	8.23	
		72%	23.77	2143	0.42	11.20	4815	266	8.05	
		74%	23.75	2233	0.44	11.93	4913	284	7.88	
		76%	23.74	2331	0.46	12.74	5012	302	7.71	
		78%	23.73	2426	0.48	13.61	5111	323	7.51	
80%	23.72	2513	0.49	14.28	5200	339	7.42			
90%	23.64	3012	0.59	18.99	5655	449	6.71			
100%	23.53	3639	0.71	26.33	6211	620	5.87			
MN4112 KV320	T16*8"	40%	23.93	804	0.17	3.00	3161	72	11.19	79 (Ambient Temperature: 15°C)
		42%	23.93	863	0.18	3.29	3260	79	10.97	
		44%	23.92	926	0.20	3.63	3369	87	10.66	
		46%	23.91	986	0.21	3.98	3474	95	10.36	
		48%	23.90	1053	0.22	4.38	3586	105	10.06	
		50%	23.89	1112	0.23	4.73	3682	113	9.84	
		52%	23.88	1182	0.25	5.16	3789	123	9.58	
		54%	23.87	1252	0.26	5.61	3900	134	9.35	
		56%	23.86	1314	0.28	6.03	4002	144	9.12	
		58%	23.85	1393	0.29	6.60	4110	157	8.86	
		60%	23.85	1462	0.31	7.07	4209	168	8.68	
		62%	23.84	1538	0.32	7.59	4317	181	8.51	
		64%	23.82	1625	0.34	8.21	4425	196	8.31	

		66%	23.81	1709	0.36	8.88	4531	212	8.08	
		68%	23.80	1795	0.37	9.54	4635	227	7.91	
		70%	23.79	1871	0.39	10.18	4732	242	7.73	
		72%	23.77	1957	0.41	10.90	4835	259	7.55	
		74%	23.76	2044	0.43	11.64	4935	276	7.39	
		76%	23.75	2134	0.44	12.42	5034	295	7.23	
		78%	23.73	2218	0.46	13.21	5132	313	7.08	
		80%	23.72	2295	0.48	13.97	5222	331	6.93	
		90%	23.65	2759	0.58	18.66	5677	441	6.25	
		100%	23.54	3370	0.71	26.05	6230	613	5.50	
MN4112 KV420	P15*5"	40%	23.93	867	0.16	3.70	3928	88	9.80	79 (Ambient Temperature: 15°C)
		42%	23.91	932	0.17	4.07	4066	97	9.56	
		44%	23.91	997	0.18	4.49	4215	107	9.29	
		46%	23.90	1063	0.20	4.85	4342	116	9.17	
		48%	23.89	1144	0.21	5.40	4499	129	8.88	
		50%	23.88	1223	0.23	5.88	4648	140	8.72	
		52%	23.87	1299	0.24	6.39	4790	152	8.53	
		54%	23.86	1377	0.25	6.96	4935	166	8.30	
		56%	23.84	1466	0.27	7.65	5083	182	8.04	
		58%	23.84	1539	0.28	8.16	5212	194	7.91	
		60%	23.82	1635	0.30	8.85	5356	211	7.75	
		62%	23.81	1723	0.31	9.56	5497	228	7.57	
		64%	23.80	1808	0.33	10.27	5636	244	7.40	
		66%	23.78	1898	0.34	11.03	5768	262	7.23	
		68%	23.77	1986	0.36	11.81	5901	281	7.07	
		70%	23.76	2084	0.38	12.61	6036	300	6.95	
		72%	23.74	2235	0.40	14.01	6233	332	6.72	
		74%	23.72	2327	0.42	14.96	6370	355	6.56	
		76%	23.71	2406	0.43	15.73	6478	373	6.45	
		78%	23.70	2496	0.45	16.60	6607	393	6.34	
80%	23.68	2589	0.46	17.59	6731	416	6.22			
90%	23.60	3093	0.56	23.17	7324	547	5.66			
100%	23.48	3752	0.68	31.41	8025	738	5.09			

Note: Motor temperature is motor surface temperature at 100% throttle running 10 mins.
(Date above based on benchtest are for reference only. Comparison 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 "onsales@ligpower.com" in time.