



M6208 Light

Specification I

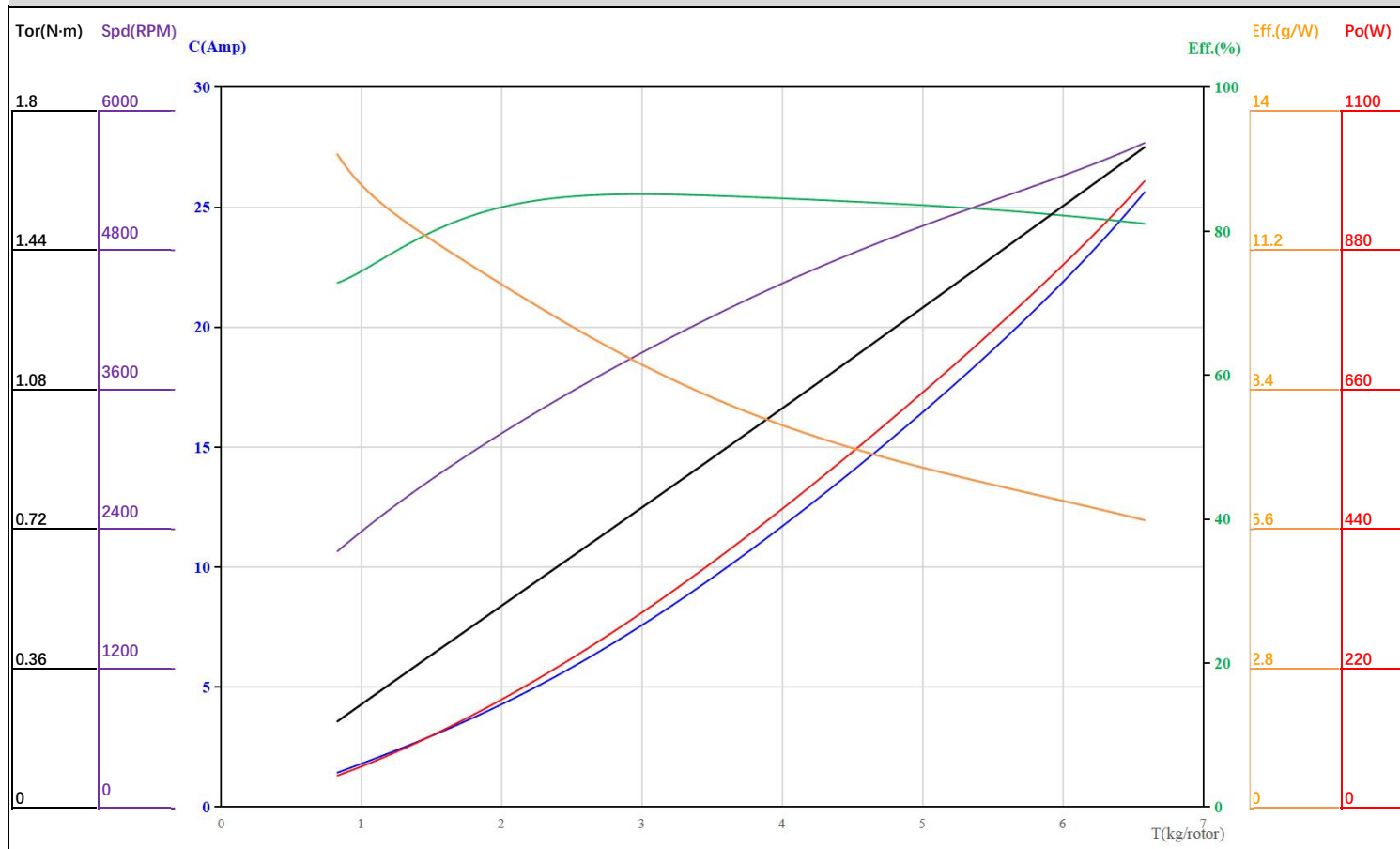
Model	M6208 Light-155/310KV	Protection level	IPX5
Motor Size	Φ68.7mm*H25.8mm	Slot& Pole	24N28P
Stator Size	Φ62*H8mm	Dynamic balance	≤8mg
Stator process	High standard silicon steel sheet, rust proof, 180°C high temperature resistance paint-coat	Bearing	Water proof bearing
Enamelled wire	200°C	Motor axle diameter	Φ4mm
Magnet	150°C	Props mounting dimensions	4*M3@D12mm , 4*M4@D18mm
Isolation test	500V AC high voltage resistance test	Motor mounting dimensions	4*M4@D32mm
Rated power input	250W	Rated power output	212.5W

Specification II

KV	155	310
Battery(LiPo)	LiPo-12S	LiPo-16S
No-load current	0.92A	1.65A
Maximum current (Non-hermetic Ambient Temperature ≤ 25°C)	28.5A	60A
Max power	1038W	1050W
Max thrust	7 kg	7kg
Resistance	161.4mΩ	42.3mΩ
Wire Size	enamelled wire outlet	enamelled wire outlet
Wire length	50mm	50mm
Weight (With wire)	165g	169g

155KV+MSC 21x6.3 Load performance parameters

Graph



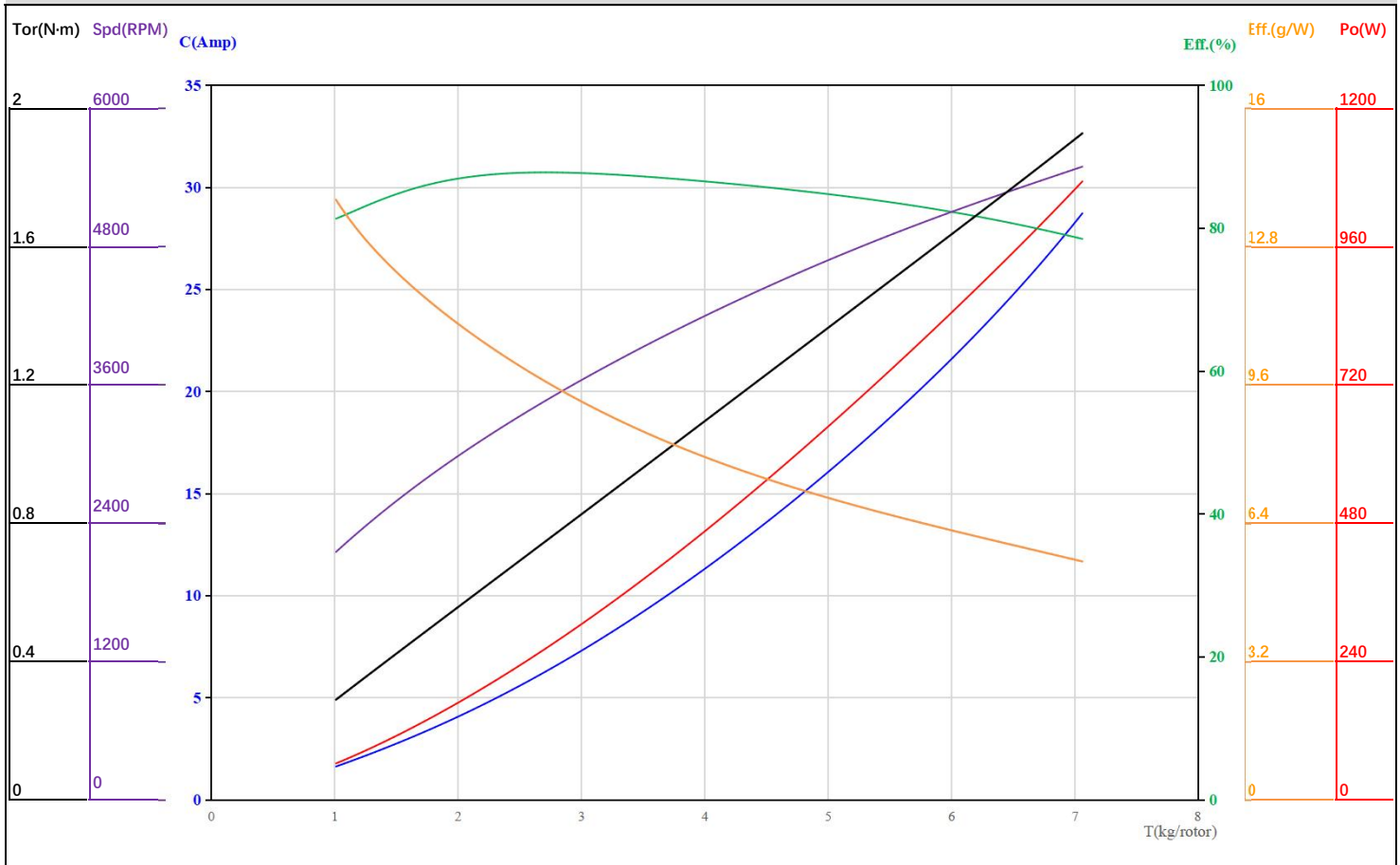
Motor Propeller Pull Test Data

Voltage(V)	Propeller	Throttle(%)	Thrust(g)	Current(A)	Power Input(W)	Speed(RPM)	Efficiency(g/W)	Torque(N·m)	Power Output(W)	Temperature(°C)
46V (12S LiPo)	MSC 21x6.3	33%	853	1.5	67.7	2152	12.6	0.22	57.5	58.0
		35%	953	1.7	77.8	2249	12.2	0.24	66.1	
		37%	1075	2.0	90.2	2363	11.9	0.27	76.7	
		39%	1212	2.3	104.6	2487	11.6	0.31	88.9	
		42%	1440	2.8	129.2	2680	11.1	0.37	109.8	
		45%	1683	3.4	157.2	2875	10.7	0.42	133.6	
		48%	1934	4.1	188.1	3065	10.3	0.49	159.9	
		51%	2185	4.8	221.7	3246	9.9	0.55	188.4	
		54%	2436	5.6	257.7	3420	9.5	0.61	219.1	
		57%	2684	6.4	296.1	3585	9.1	0.67	251.7	
		60%	2931	7.3	336.7	3743	8.7	0.73	286.2	
		63%	3178	8.2	379.8	3896	8.4	0.79	322.9	
		66%	3428	9.2	425.8	4046	8.1	0.85	361.9	
		69%	3684	10.3	475.0	4192	7.8	0.92	403.8	
		72%	3949	11.5	528.1	4337	7.5	0.98	448.9	
		75%	4225	12.7	585.5	4480	7.2	1.05	497.6	
		78%	4512	14.1	647.4	4621	7.0	1.13	550.3	
		81%	4812	15.5	714.2	4760	6.7	1.20	607.1	
		84%	5121	17.1	785.7	4896	6.5	1.28	667.8	
		87%	5435	18.7	861.4	5028	6.3	1.36	732.2	
		90%	5748	20.4	940.3	5157	6.1	1.44	799.3	
		100%	6582	25.6	1180.0	5536	5.6	1.65	1003.0	

The above data is measured by HobbyWing laboratory at room temperature 25°C, sea level, change the throttle input adjustment, the motor housing temperature is 65% and the throttle runs for 10 minutes, for reference only.

155KV+MSC 22x7.8 Load performance parameters

Graph



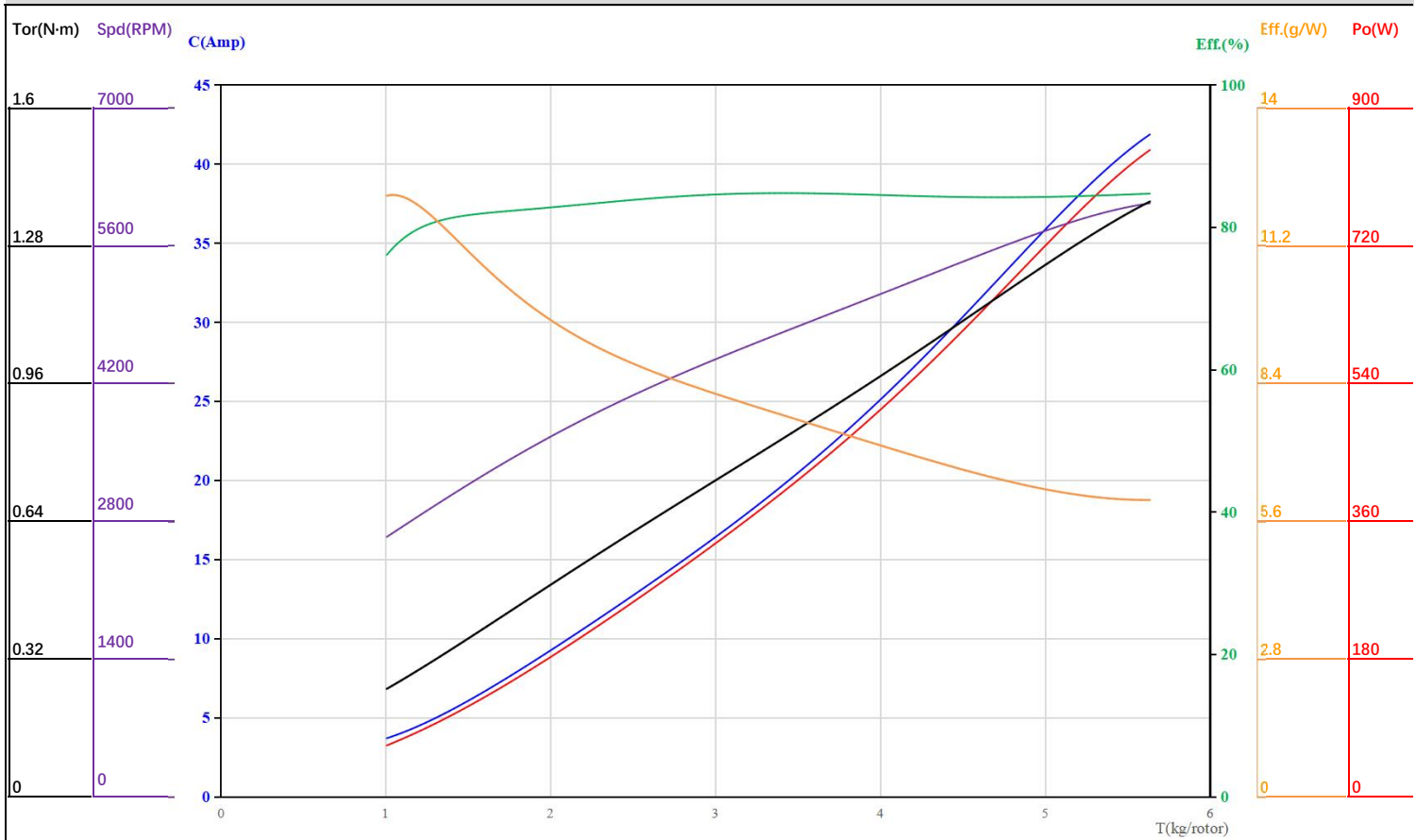
Motor Propeller Pull Test Data

Voltage(V)	Propeller	Throttle(%)	Thrust(g)	Current(A)	Power Input(W)	Speed(RPM)	Efficiency(g/W)	Torque(N-m)	Power Output(W)	Temperature(°C)
46V (12S LiPo)	MSC 22x7.8	33%	1030	1.7	77.2	2101	13.3	0.29	65.6	79.0
		35%	1132	1.9	87.5	2195	12.9	0.31	74.4	
		37%	1258	2.2	100.5	2307	12.5	0.35	85.4	
		39%	1402	2.5	116.0	2429	12.1	0.38	98.6	
		42%	1641	3.1	143.2	2622	11.5	0.45	121.7	
		45%	1900	3.8	174.8	2816	10.9	0.51	148.6	
		48%	2168	4.6	210.1	3004	10.3	0.58	178.6	
		51%	2440	5.4	248.5	3184	9.8	0.65	211.2	
		54%	2712	6.3	289.7	3353	9.4	0.72	246.2	
		57%	2981	7.2	333.2	3514	8.9	0.79	283.2	
		60%	3249	8.2	379.1	3666	8.6	0.86	322.2	
		63%	3516	9.3	427.3	3812	8.2	0.93	363.2	
		66%	3784	10.4	478.3	3953	7.9	1.00	406.5	
		69%	4056	11.6	532.4	4091	7.6	1.07	452.5	
		72%	4334	12.8	590.2	4226	7.3	1.15	501.7	
		75%	4619	14.2	652.4	4361	7.1	1.22	554.5	
		78%	4915	15.6	719.5	4494	6.8	1.30	611.6	
		81%	5220	17.2	792.0	4625	6.6	1.38	673.2	
		84%	5534	18.9	870.2	4755	6.4	1.46	739.7	
		87%	5852	20.7	953.8	4880	6.1	1.54	810.8	
		90%	6171	22.6	1042.2	5000	5.9	1.63	885.9	
		100%	7062	28.7	1323.1	5317	5.3	1.87	1124.6	

The above data is measured by HobbyWing laboratory at room temperature 25°C, sea level, change the throttle input adjustment, the motor housing temperature is 65% and the throttle runs for 10 minutes, for reference only.

310KV+MSC 21x6.3 Load performance parameters

Graph



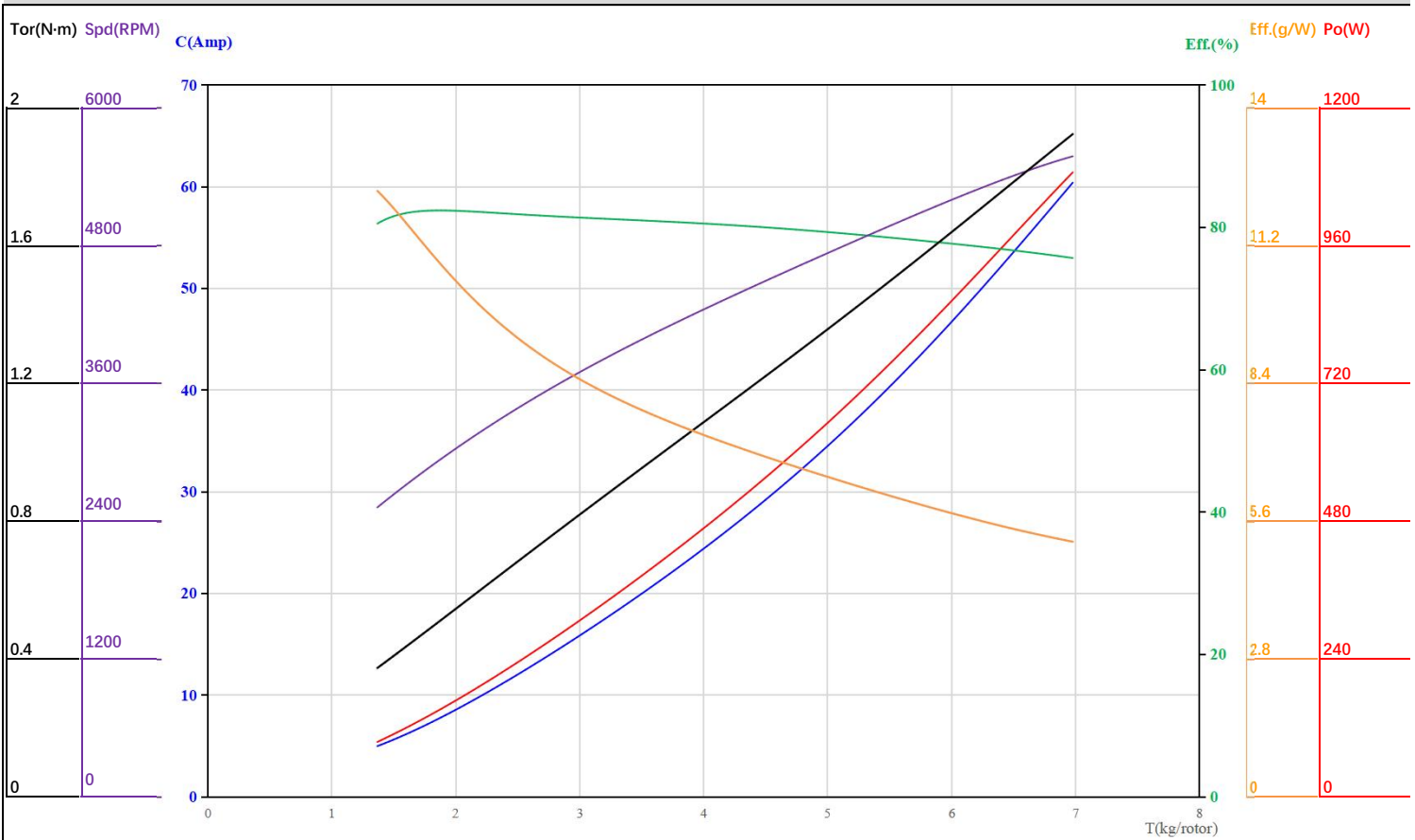
Motor Propeller Pull Test Data

Voltage(V)	Propeller	Throttle(%)	Thrust(g)	Current(A)	Power Input(W)	Speed(RPM)	Efficiency(g/W)	Torque(N-m)	Power Output(W)	Temperature(°C)
23V (6S LiPo)	MSC 21x6.3	33%	1038	3.8	87.7	2588	11.8	0.25	74.6	55.0
		35%	1157	4.3	98.7	2714	11.7	0.28	83.9	
		37%	1273	4.8	111.3	2836	11.4	0.30	94.6	
		39%	1388	5.4	125.2	2955	11.1	0.33	106.4	
		42%	1560	6.4	147.9	3128	10.5	0.37	125.7	
		45%	1732	7.5	172.5	3295	10.0	0.41	146.7	
		48%	1906	8.6	198.8	3457	9.6	0.45	168.9	
		51%	2084	9.8	226.3	3613	9.2	0.50	192.4	
		54%	2265	11.1	255.1	3764	8.9	0.54	216.9	
		57%	2449	12.4	285.1	3909	8.6	0.58	242.3	
		60%	2638	13.7	316.3	4050	8.3	0.63	268.9	
		63%	2830	15.1	348.9	4186	8.1	0.67	296.6	
		66%	3026	16.6	383.1	4319	7.9	0.72	325.7	
		69%	3226	18.2	419.3	4450	7.7	0.76	356.4	
		72%	3428	19.9	457.9	4580	7.5	0.81	389.2	
		75%	3635	21.7	499.3	4711	7.3	0.86	424.4	
		78%	3845	23.6	544.1	4844	7.1	0.91	462.5	
		81%	4060	25.7	592.6	4981	6.9	0.96	503.7	
		84%	4282	28.0	645.3	5123	6.6	1.01	548.5	
		87%	4512	30.5	702.5	5270	6.4	1.07	597.1	
		90%	4754	33.1	764.0	5420	6.2	1.13	649.4	
		100%	5634	41.9	965.1	5837	5.8	1.34	820.4	

The above data is measured by HobbyWing laboratory at room temperature 25°C, sea level, change the throttle input adjustment, the motor housing temperature is 65% and the throttle runs for 10 minutes, for reference only.

310KV+MSC 22x7.8 Load performance parameters

Graph

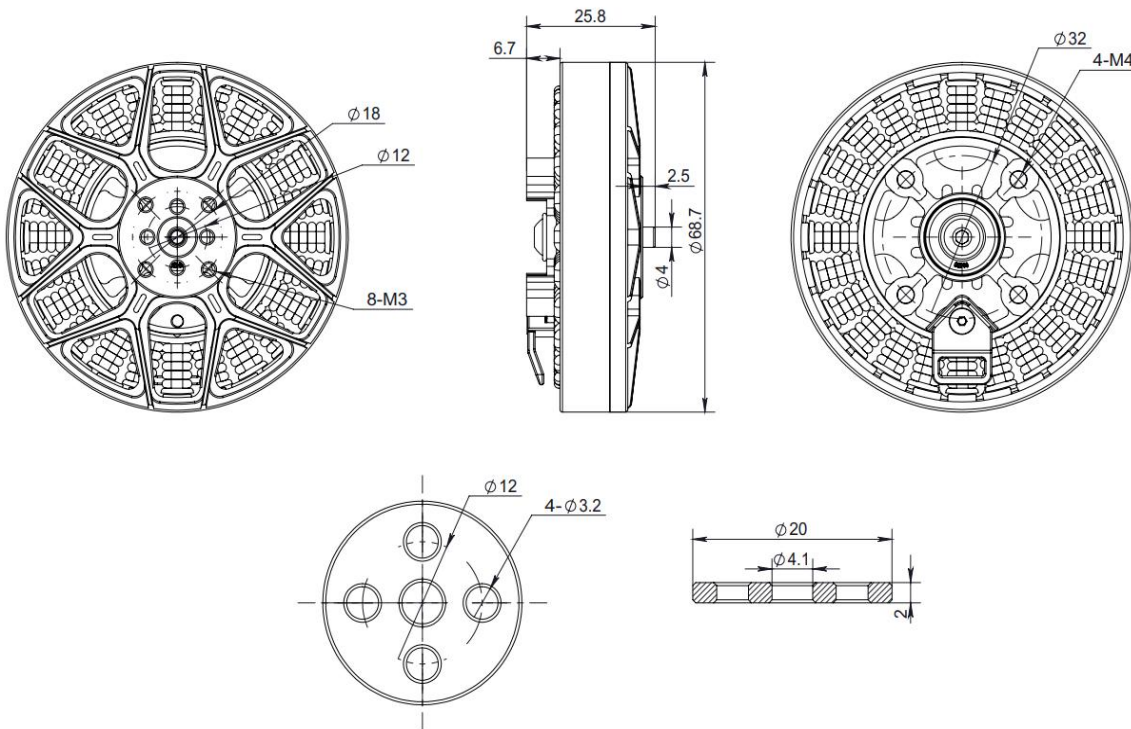


Motor Propeller Pull Test Data

Voltage(V)	Propeller	Throttle(%)	Thrust(g)	Current(A)	Power Input(W)	Speed(RPM)	Efficiency(g/W)	Torque(N-m)	Power Output(W)	Temperature(°C)
23V (6S LiPo)	MSC 22x7.8	33%	1399	5.1	118.1	2465	11.8	0.37	100.4	83.0
		35%	1528	5.8	133.0	2572	11.5	0.40	113.0	
		37%	1666	6.5	150.2	2682	11.1	0.44	127.6	
		39%	1809	7.4	169.5	2793	10.7	0.48	144.1	
		42%	2031	8.8	201.8	2957	10.1	0.54	171.5	
		45%	2259	10.3	237.3	3116	9.5	0.60	201.7	
		48%	2488	11.9	275.0	3268	9.0	0.66	233.8	
		51%	2716	13.6	314.3	3411	8.6	0.72	267.2	
		54%	2943	15.4	354.8	3546	8.3	0.78	301.6	
		57%	3167	17.2	396.2	3674	8.0	0.84	336.8	
		60%	3390	19.0	438.7	3795	7.7	0.89	372.9	
		63%	3613	20.9	482.4	3912	7.5	0.95	410.1	
		66%	3837	22.9	527.9	4026	7.3	1.01	448.7	
		69%	4064	25.0	575.8	4139	7.1	1.07	489.4	
		72%	4297	27.2	626.7	4252	6.9	1.13	532.7	
		75%	4537	29.6	681.5	4366	6.7	1.19	579.3	
		78%	4787	32.2	741.4	4484	6.5	1.26	630.2	
		81%	5049	35.0	807.2	4605	6.3	1.33	686.1	
		84%	5324	38.2	880.2	4732	6.0	1.40	748.2	
		87%	5614	41.7	961.3	4863	5.8	1.48	817.1	
		90%	5919	45.6	1051.2	4997	5.6	1.56	893.6	
		100%	6977	60.4	1390.7	5399	5.0	1.86	1182.1	

The above data is measured by Hobbywing laboratory at room temperature 25°C, sea level, change the throttle input adjustment, the motor housing temperature is 65% and the throttle runs for 10 minutes, for reference only.

Dimension figure



Recommended application combinations

Motor	M6208 Light
Propeller	MSC 21x6.3/MSC 22x7.8
ESC	XRotor Pro H60A 14S/6S
Battery	12S/6S LiPo
Takeoff weight / rotor	2~2.5kg
Takeoff weight of quadrotor	8~10kg