

M8108 HighProt



基础参数 Specification I

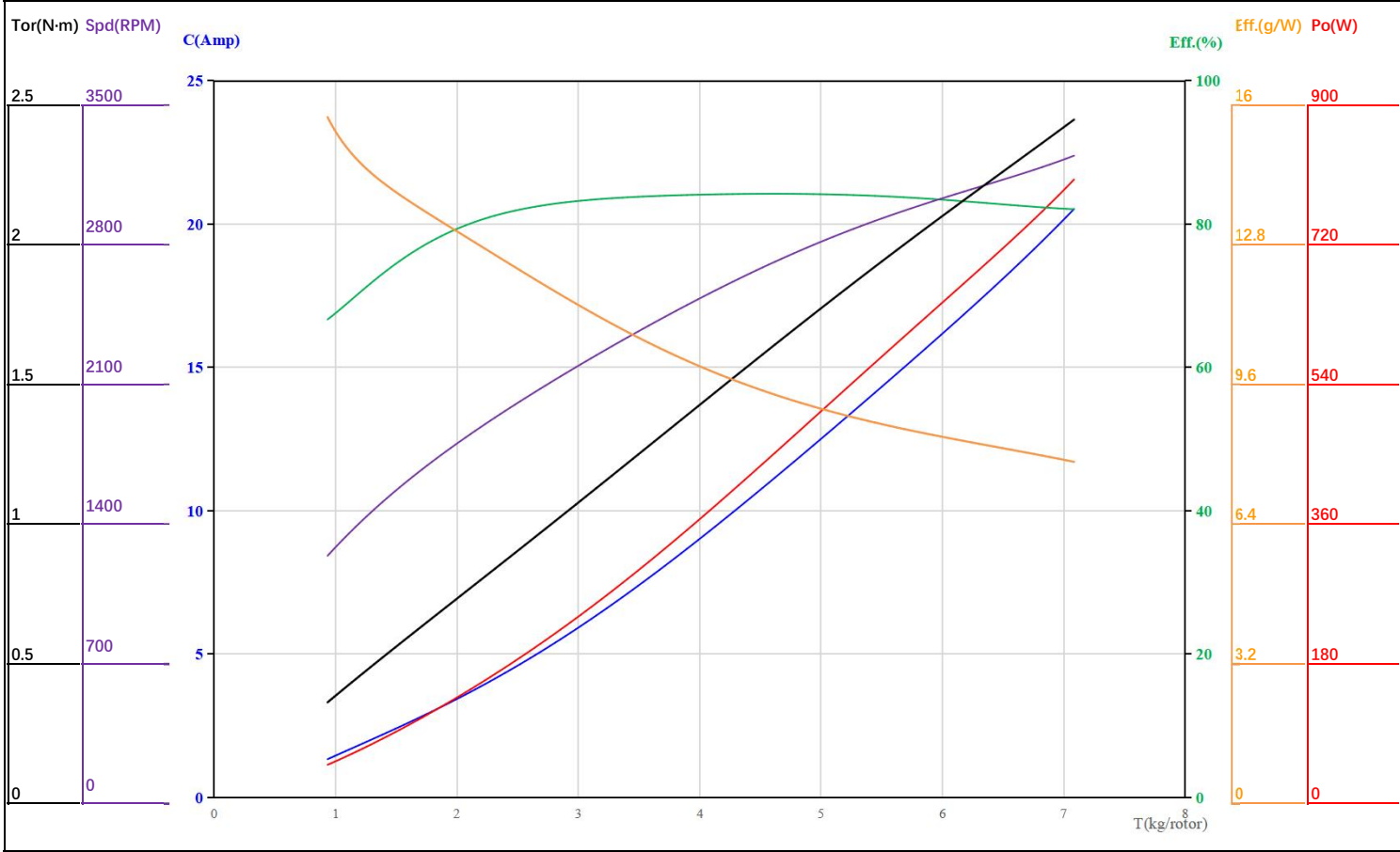
产品型号 Model	M8108 HighProt-85/100KV	防尘防水等级 Protection level	IP45
电机尺寸 Motor Size	Φ87.1*H26.9mm	槽极数 Slot& Pole	36槽42极 36N 42P
定子尺寸 Stator Size	Φ81*H8mm	电机整体动平衡标准 Dynamic balance	≤10mg
定子工艺 Stator process	高品质硅钢片，防锈处理，耐180℃高温涂覆 High standard silicon steel sheet, rust proof, 180℃ high temperature resistance paint-coat	轴承型号 Bearing	高品质防水轴承 Water proof bearing
漆包线等级 Enamelled wire	220℃	出轴轴径 Motor axle diameter	轴套 Φ10mm shaft sleeve Φ10mm
磁铁等级 Magnet	180℃	桨叶安装孔尺寸 Props mounting dimensions	4*M4@D23mm, 4*M3@D20mm
线圈绝缘测试 Isolation test	500V交流耐压测试 500V AC high voltage resistance test	电机安装孔尺寸 Motor mounting dimensions	4*M4@D36mm
额定输入功率 Rated power input	280W	额定输出功率 Rated power output	238W

技术参数 Specification II

KV值 KV	85KV	100KV
额定电压 Battery(LiPo)	LiPo-12S	LiPo-12S
空载电流 No-load current	0.67A	1.11A
最大电流/A(非密闭环境温度 ≤25℃) Maximum current (Non-hermetic Ambient Temperature ≤ 25℃)	27.2A	34.3A
最大功率 Max power	950W	1572W
最大拉力 Max thrust	7.2kg	9.3kg
相间内阻 Resistance	241.2mΩ	163.3mΩ
出线规格 Wire Size	16AWG	16AWG
出线长度 Wire length	100mm	100mm
电机重量(含线) Weight (With wire)	270g	271g

85KV+MSC 29x9.5 负载性能参数 Load performance parameters

曲线图 Graph



拉力数据表 Motor Propeller Pull Test Data

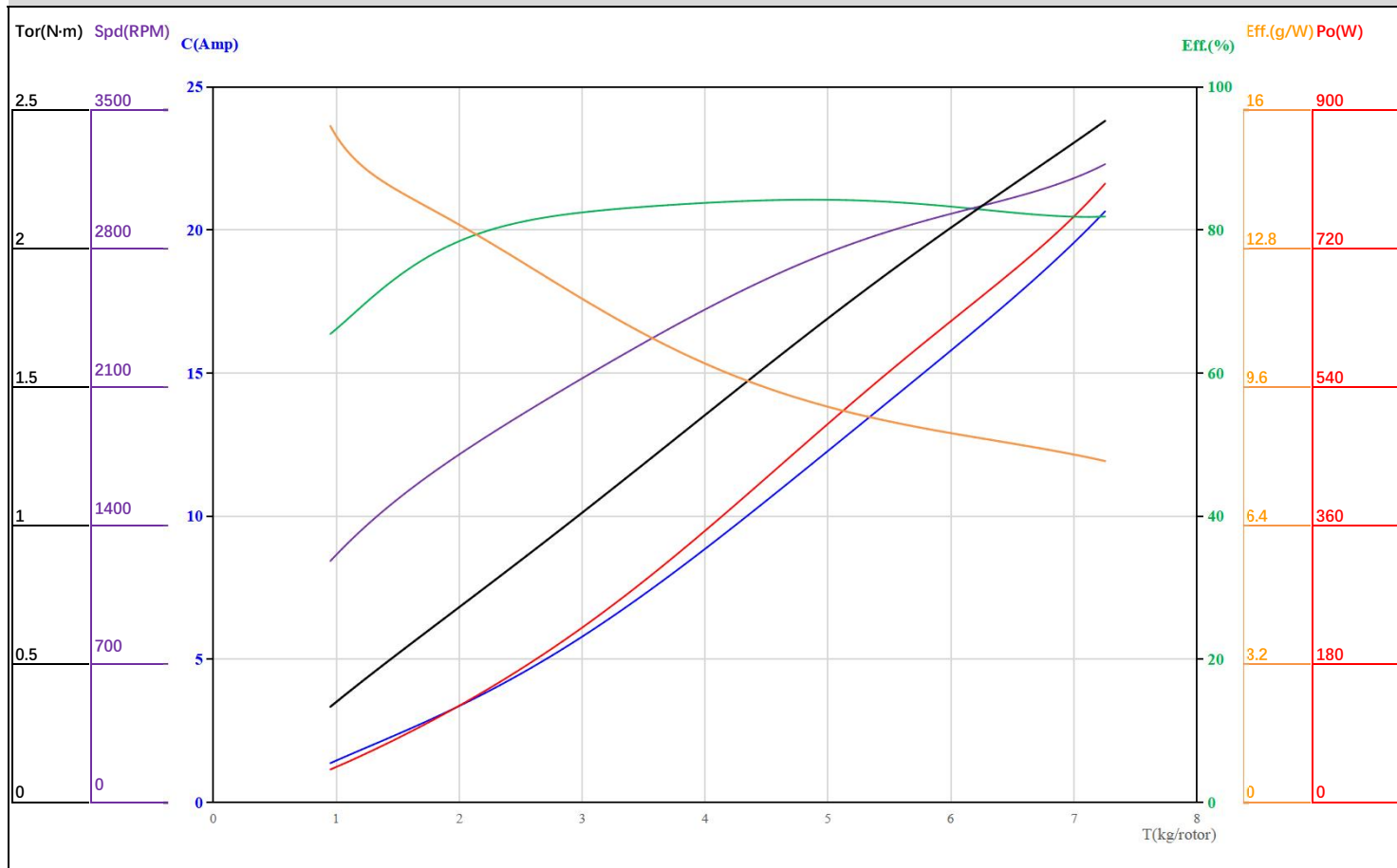
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
46V (12S LiPo)	MSC 29x9.5	33%	951	1.4	63.0	1191	15.1	0.34	42.2	62.0
		35%	1033	1.5	70.2	1243	14.7	0.37	47.8	
		37%	1136	1.7	79.1	1305	14.4	0.40	55.0	
		39%	1254	1.9	89.4	1372	14.0	0.44	63.7	
		42%	1455	2.3	107.0	1478	13.6	0.51	79.2	
		45%	1676	2.8	127.1	1585	13.2	0.59	97.2	
		48%	1909	3.2	149.3	1690	12.8	0.66	117.4	
		51%	2150	3.8	173.6	1791	12.4	0.74	139.4	
		54%	2396	4.3	200.1	1887	12.0	0.83	163.2	
		57%	2644	5.0	228.6	1981	11.6	0.91	188.5	
		60%	2895	5.6	259.4	2071	11.2	0.99	215.4	
		63%	3148	6.3	292.4	2160	10.8	1.08	244.0	
		66%	3405	7.1	327.7	2247	10.4	1.17	274.4	
		69%	3669	7.9	365.7	2333	10.0	1.26	306.9	
		72%	3941	8.8	406.4	2419	9.7	1.35	341.7	
		75%	4223	9.8	450.3	2504	9.4	1.45	379.0	
		78%	4519	10.8	497.4	2589	9.1	1.55	419.0	
		81%	4830	11.9	548.0	2671	8.8	1.65	461.5	
		84%	5157	13.1	602.2	2752	8.6	1.76	506.5	
		87%	5501	14.3	660.0	2828	8.3	1.87	553.7	
		90%	5862	15.7	721.4	2900	8.1	1.98	602.8	
		100%	7085	20.5	945.5	3134	7.5	2.36	776.1	

*以上数据为好盈实验室于室温 25℃、海平面高度，变化油门输入调节测得，电机温度为65%油门运行10分钟数据，仅供参考。

*The above data was measured by HOBBYWING Laboratory at room temperature 25°C, at sea level, with varying throttle input. The motor temperature is measured after running for 10 minutes at 65% throttle, for reference only.

85KV+MSC 30x9.8 负载性能参数 Load performance parameters

曲线图 Graph



拉力数据表 Motor Propeller Pull Test Data

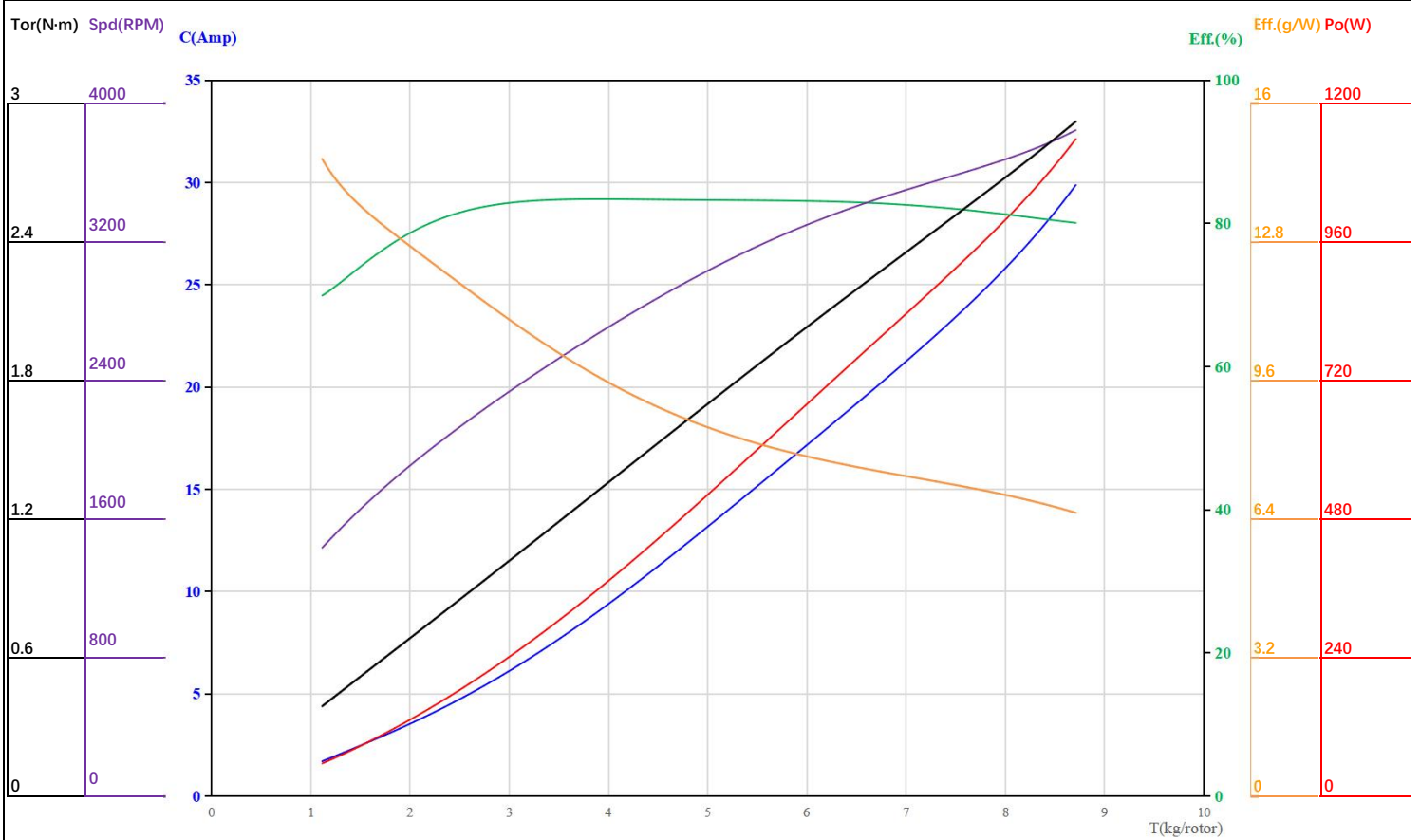
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
46V (12S LiPo)	MSC 30x9.8	33%	968	1.4	64.3	1190	15.0	0.34	42.2	65.0
		35%	1046	1.5	71.0	1239	14.7	0.37	47.5	
		37%	1148	1.7	79.8	1299	14.4	0.40	54.6	
		39%	1271	2.0	90.1	1367	14.1	0.44	63.3	
		42%	1481	2.3	108.0	1474	13.7	0.51	79.1	
		45%	1713	2.8	128.3	1581	13.4	0.59	97.4	
		48%	1958	3.3	150.8	1684	13.0	0.67	117.8	
		51%	2209	3.8	175.5	1784	12.6	0.75	140.0	
		54%	2462	4.4	202.3	1879	12.2	0.83	163.8	
		57%	2715	5.0	231.3	1972	11.7	0.92	189.2	
		60%	2968	5.7	262.3	2062	11.3	1.00	216.1	
		63%	3222	6.4	295.5	2151	10.9	1.09	244.8	
		66%	3480	7.2	331.1	2240	10.5	1.17	275.5	
		69%	3744	8.0	369.2	2328	10.1	1.26	308.4	
		72%	4017	8.9	410.2	2416	9.8	1.36	343.7	
		75%	4303	9.9	454.5	2503	9.5	1.46	381.8	
		78%	4605	10.9	502.1	2589	9.2	1.56	422.7	
		81%	4925	12.0	553.3	2671	8.9	1.67	466.0	
		84%	5265	13.2	607.9	2747	8.7	1.78	511.3	
		87%	5624	14.5	665.7	2816	8.4	1.89	557.8	
		90%	6001	15.8	726.9	2879	8.3	2.01	605.2	
		100%	7255	20.6	950.7	3121	7.6	2.38	778.2	

*以上数据为好盈实验室于室温25°C、海平面高度，变化油门输入调节测得，电机温度为65%油门运行10分钟数据，仅供参考。

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100KV+MSC 28x9.2 负载性能参数 Load performance parameters

曲线图 Graph



拉力数据表 Motor Propeller Pull Test Data

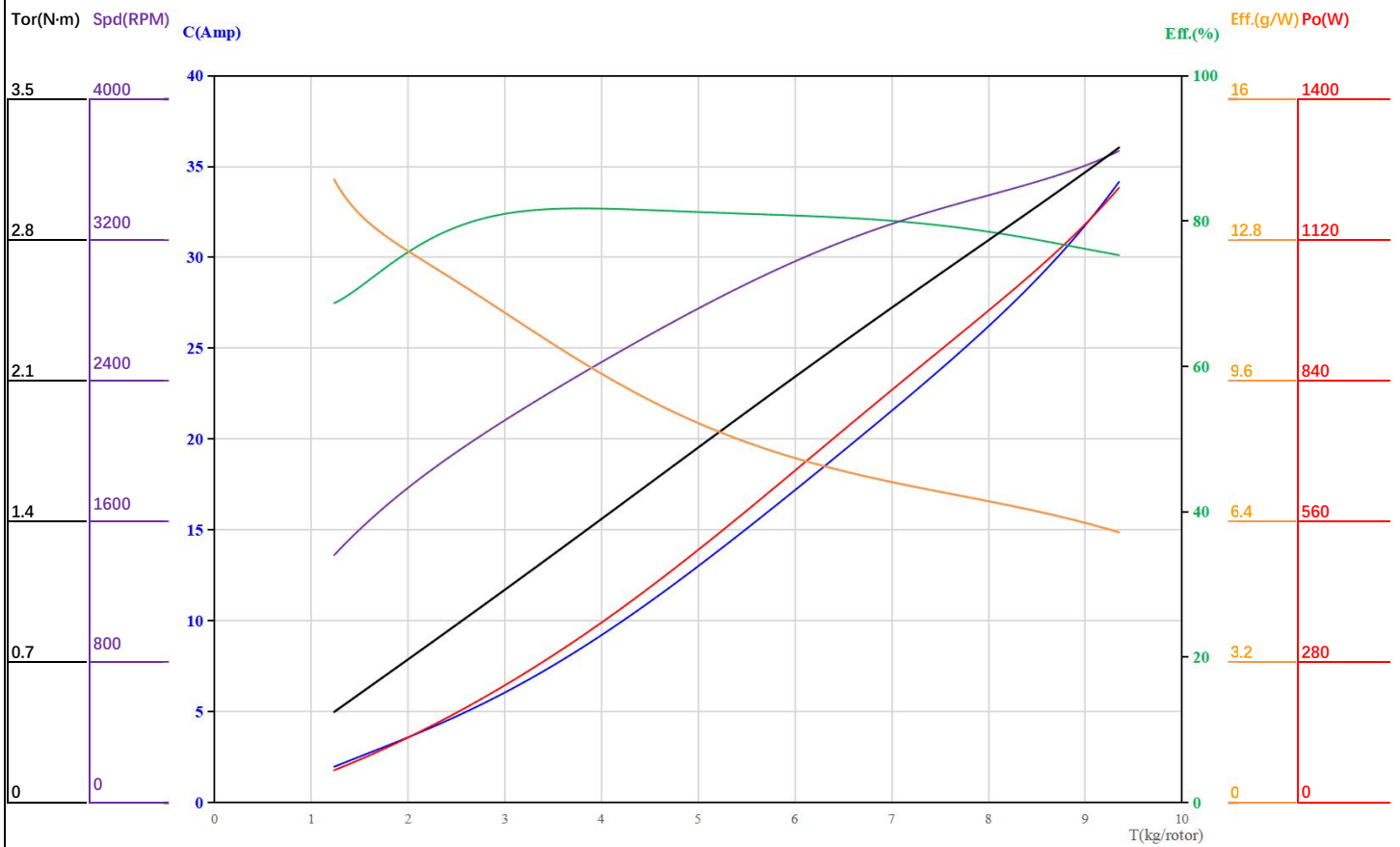
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
46V (12S LiPo)	MSC 28x9.2	33%	1133	1.7	80.0	1398	14.2	0.38	56.0	70.0
		35%	1232	1.9	89.1	1457	13.8	0.41	63.3	
		37%	1367	2.2	101.4	1532	13.5	0.46	73.5	
		39%	1527	2.5	116.2	1617	13.1	0.51	86.3	
		42%	1799	3.1	142.4	1753	12.6	0.60	109.6	
		45%	2093	3.7	172.4	1888	12.1	0.69	136.8	
		48%	2394	4.5	205.8	2019	11.6	0.79	166.8	
		51%	2695	5.3	241.9	2141	11.1	0.89	198.8	
		54%	2990	6.1	280.4	2257	10.7	0.98	232.3	
		57%	3280	7.0	320.9	2365	10.2	1.08	266.9	
		60%	3565	7.9	363.4	2469	9.8	1.17	302.9	
		63%	3852	8.9	408.5	2570	9.4	1.27	340.6	
		66%	4145	9.9	456.7	2669	9.1	1.36	380.8	
		69%	4450	11.1	509.0	2769	8.7	1.46	424.2	
		72%	4776	12.3	566.4	2869	8.4	1.57	471.8	
		75%	5126	13.7	629.6	2971	8.1	1.68	524.2	
		78%	5506	15.2	699.1	3073	7.9	1.81	581.8	
		81%	5917	16.8	774.9	3173	7.6	1.94	644.4	
		84%	6357	18.6	856.9	3268	7.4	2.08	711.3	
		87%	6822	20.5	944.7	3356	7.2	2.22	781.6	
		90%	7302	22.5	1038.5	3438	7.0	2.37	854.4	
		100%	8711	29.9	1375.9	3721	6.3	2.83	1101.6	

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100KV+MSC 29x9.5 负载性能参数 Load performance parameters

曲线图 Graph



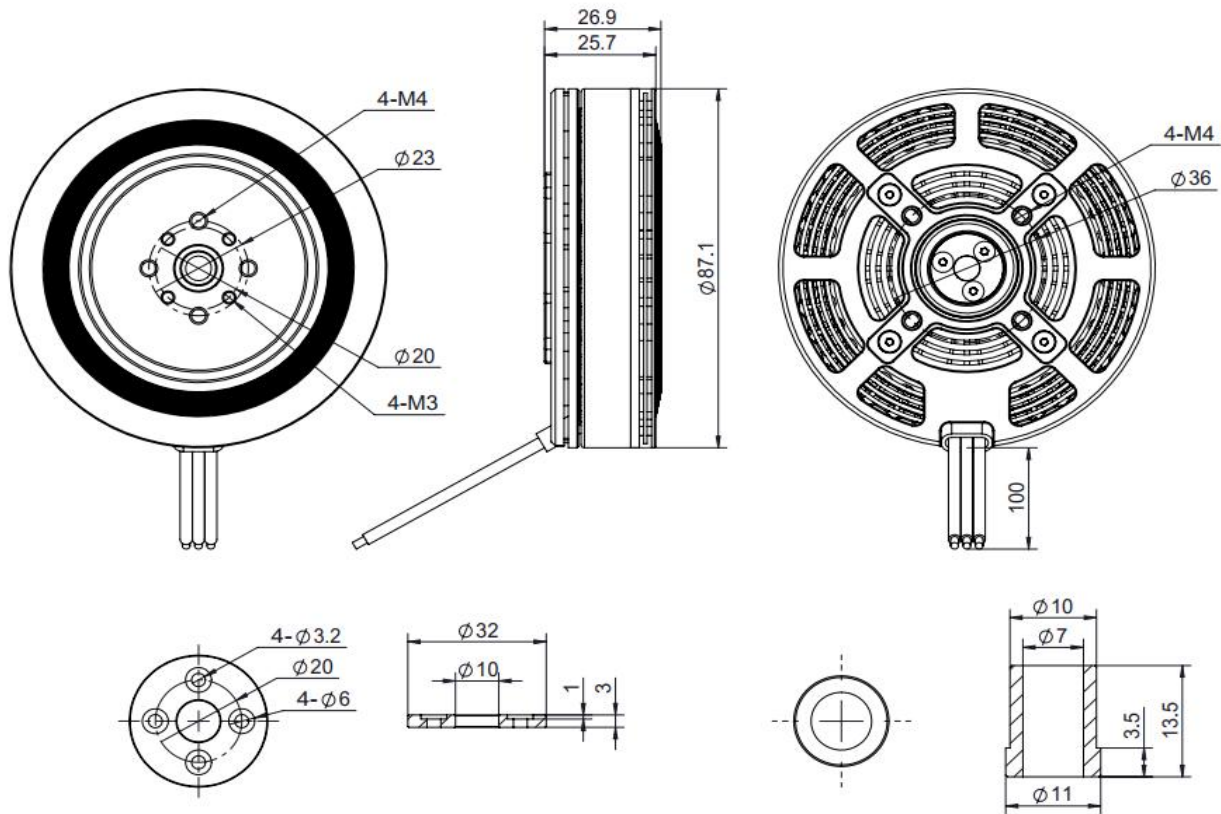
拉力数据表 Motor Propeller Pull Test Data

Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
46V (12S LiPo)	MSC 29x9.5	33%	1259	2.0	92.3	1372	13.6	0.44	63.5	75.0
		35%	1368	2.2	103.0	1432	13.3	0.48	71.7	
		37%	1514	2.5	117.1	1508	12.9	0.53	83.2	
		39%	1688	2.9	133.9	1592	12.6	0.58	97.5	
		42%	1986	3.5	163.3	1725	12.2	0.68	123.4	
		45%	2309	4.3	196.8	1855	11.7	0.79	153.6	
		48%	2642	5.1	234.3	1978	11.3	0.90	187.0	
		51%	2977	6.0	275.2	2095	10.8	1.02	222.7	
		54%	3307	6.9	319.3	2204	10.4	1.13	260.2	
		57%	3631	8.0	366.1	2308	9.9	1.24	299.2	
		60%	3949	9.0	415.6	2407	9.5	1.35	339.6	
		63%	4266	10.2	467.9	2504	9.1	1.46	381.8	
		66%	4586	11.4	523.5	2599	8.8	1.57	426.4	
		69%	4916	12.7	583.1	2694	8.4	1.68	474.0	
		72%	5261	14.1	647.8	2790	8.1	1.80	525.4	
		75%	5627	15.6	718.3	2886	7.8	1.92	581.3	
		78%	6019	17.3	795.2	2982	7.6	2.06	642.1	
		81%	6439	19.1	878.9	3075	7.3	2.20	707.5	
		84%	6887	21.1	969.5	3164	7.1	2.35	777.0	
		87%	7360	23.2	1067.3	3245	6.9	2.50	849.6	
		90%	7851	25.5	1173.0	3320	6.7	2.66	924.5	
		100%	9348	34.2	1572.3	3586	5.9	3.15	1184.0	

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尺寸图 Dimension figure



应用搭配推荐 Recommended application combinations

旋翼电机 Motor	M8108 HighProt-85/100KV
旋翼桨叶 Propeller	MSC 28x9.2/MSC 29x9.5/MSC 30x9.8
搭配电调 ESC	XRotor Pro H60A 14S
电池电压 Battery	12S LiPo
单轴应用拉力区间 Takeoff weight / rotor	2.5~3.5kg
四轴最大起飞重量 Takeoff weight of quadrotor	10.0~14.0kg