

## M5208 Light

### 基础参数 Specification I

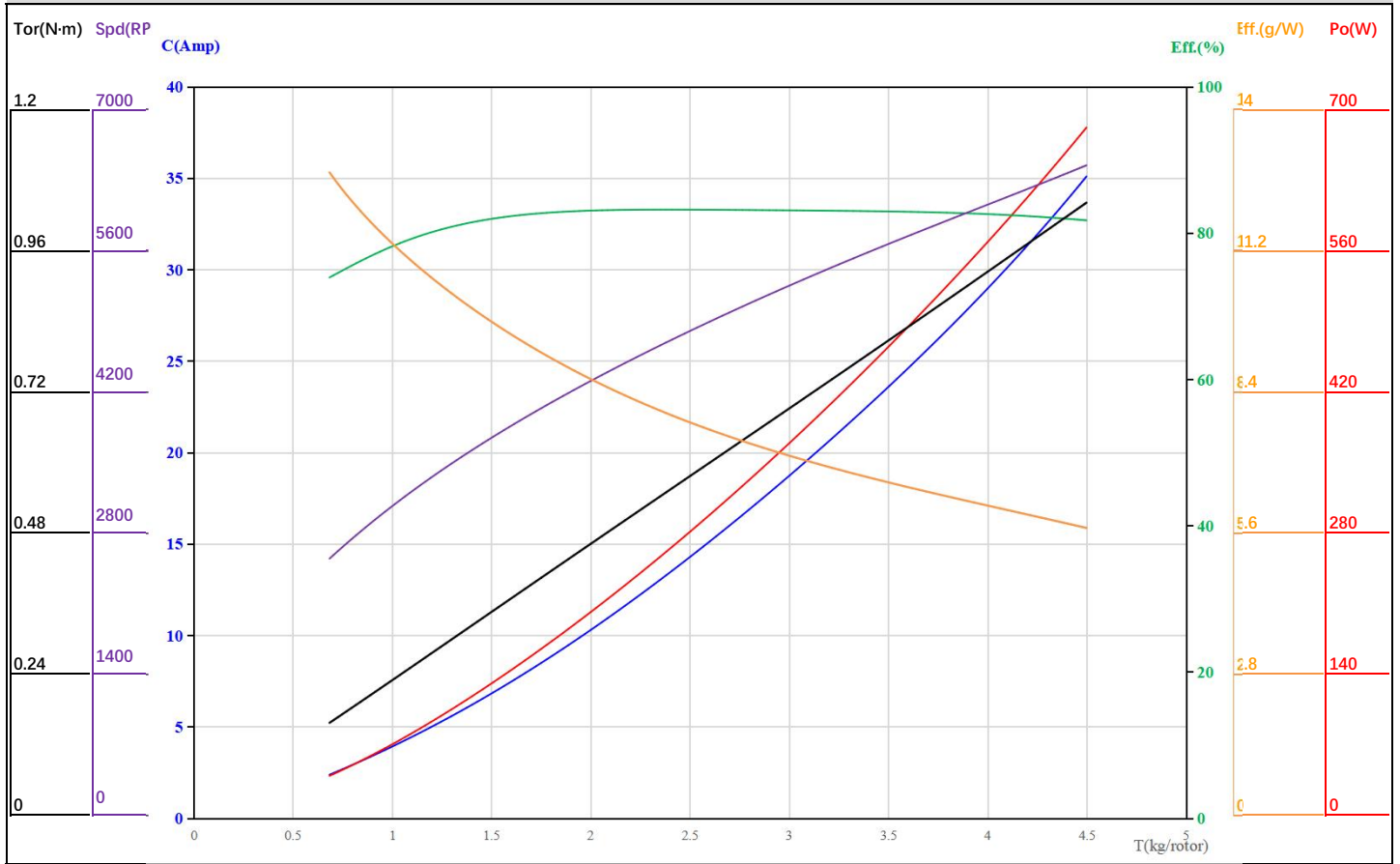
产品型号 Model	M5208 Light-340/380KV	防尘防水等级 Protection level	IPX5
电机尺寸 Motor Size	Φ58*H29.7mm	槽极数 Slot& Pole	24槽28极 24N28P
定子尺寸 Stator Size	Φ52*H8mm	电机整体动平衡标准 Dynamic balance	≤8mg
定子工艺 Stator process	高品质硅钢片, 防锈处理, 耐180°C高温涂覆 High standard silicon steel sheet, rust proof, 180°C high temperature resistance 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°C	出轴轴径 Motor axle diameter	Φ4mm
磁铁等级 Magnet	180°C	桨叶安装孔尺寸 Props mounting dimensions	4*M3@D12mm, 4*M3@D18mm
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*M3@D25mm
额定输入功率 Rated power input	220W	额定输出功率 Rated power output	187W

### 技术参数 Specification II

KV值 KV	340	380
额定电压 Battery(LiPo)	LiPo-6S	LiPo-6S
空载电流 No-load current	1.5A	2A
最大电流/A(非密闭环境温度 ≤25 °C) Maximum current (Non-hermetic Ambient Temperature ≤ 25°C)	36A	45A
最大功率 Max power	793W	1032W
最大拉力 Max thrust	4.6kg	5.3kg
相间内阻 Resistance	50.3mΩ	40.5mΩ
出线规格 Wire Size	漆包线直出 enamelled wire outlet	漆包线直出 enamelled wire outlet
出线长度 Wire length	80mm	80mm
电机重量(含线) Weight (With wire)	153.8g	156.5g

# 340KV+MSC 18x6.1 负载性能参数 Load performance parameters

## 曲线图 Graph



## 拉力数据表 Motor Propeller Pull Test Data

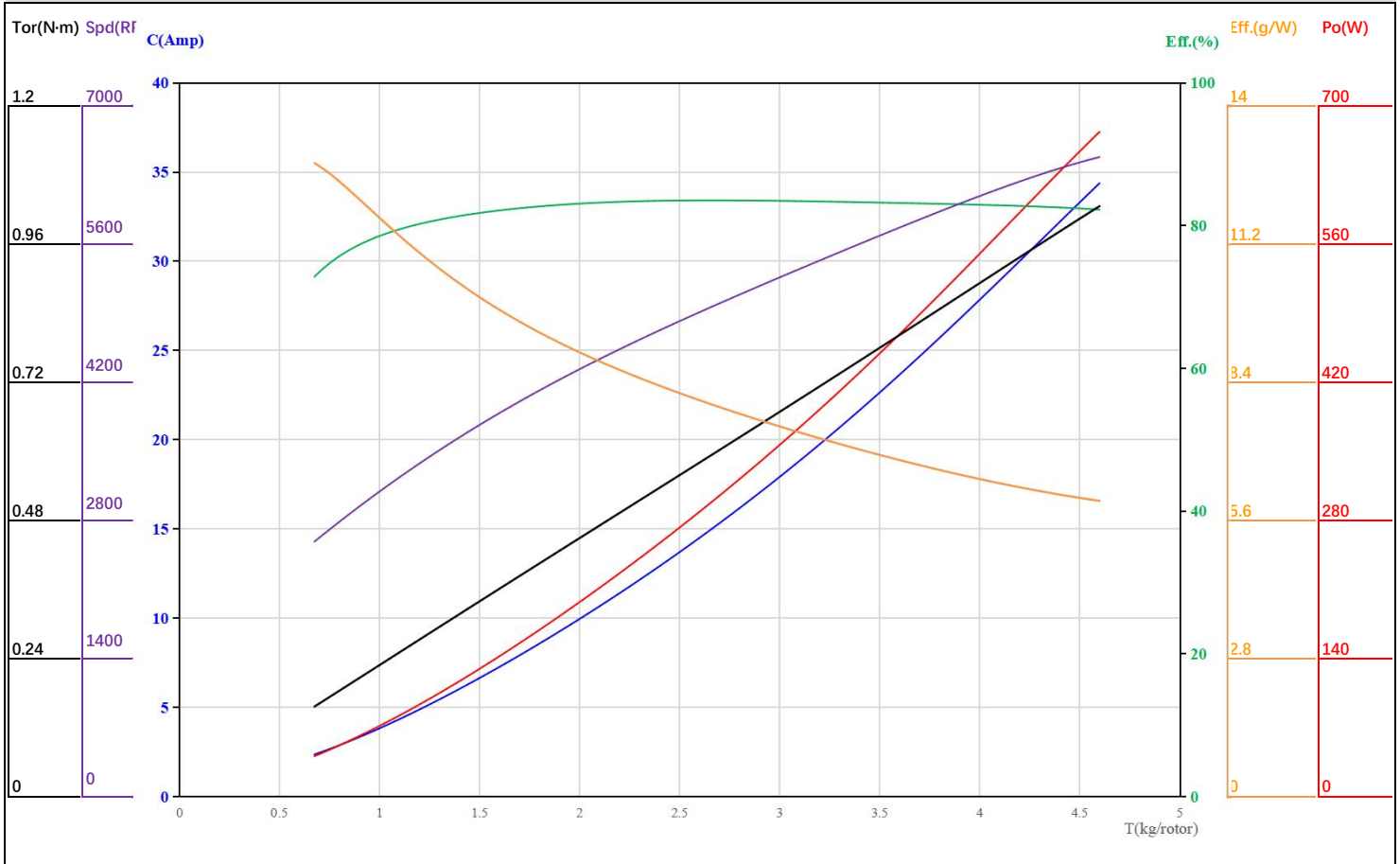
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
23V (6S LiPo)	MSC 18x6.1	33%	705	2.5	57.5	2523	12.3	0.16	48.9	58.0
		35%	794	2.9	67.1	2673	11.8	0.18	57.1	
		37%	889	3.4	77.8	2823	11.4	0.20	66.1	
		39%	987	3.9	89.4	2972	11.0	0.22	76.0	
		42%	1140	4.7	108.3	3188	10.5	0.26	92.0	
		45%	1296	5.6	128.9	3394	10.1	0.29	109.6	
		48%	1455	6.6	151.2	3590	9.6	0.33	128.5	
		51%	1615	7.6	175.1	3776	9.2	0.36	148.8	
		54%	1777	8.7	200.6	3955	8.9	0.40	170.5	
		57%	1943	9.9	228.1	4129	8.5	0.44	193.9	
		60%	2113	11.2	257.6	4300	8.2	0.48	219.0	
		63%	2289	12.6	289.6	4470	7.9	0.51	246.2	
		66%	2472	14.1	324.4	4640	7.6	0.56	275.7	
		69%	2663	15.7	362.2	4812	7.4	0.60	307.9	
		72%	2864	17.5	403.2	4985	7.1	0.64	342.8	
		75%	3072	19.4	447.6	5158	6.9	0.69	380.4	
		78%	3286	21.5	495.0	5331	6.6	0.74	420.8	
		81%	3504	23.7	545.2	5502	6.4	0.79	463.4	
84%	3721	25.9	597.3	5667	6.2	0.83	507.7			
87%	3931	28.2	650.1	5823	6.0	0.88	552.6			
90%	4125	30.4	701.4	5968	5.9	0.93	596.2			
100%	4497	35.1	808.6	808.6	6250	5.6	1.01	687.3		

\*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。

\*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.

# 340KV+MSC 19x5.7 负载性能参数 Load performance parameters

曲线图 Graph



拉力数据表 Motor Propeller Pull Test Data

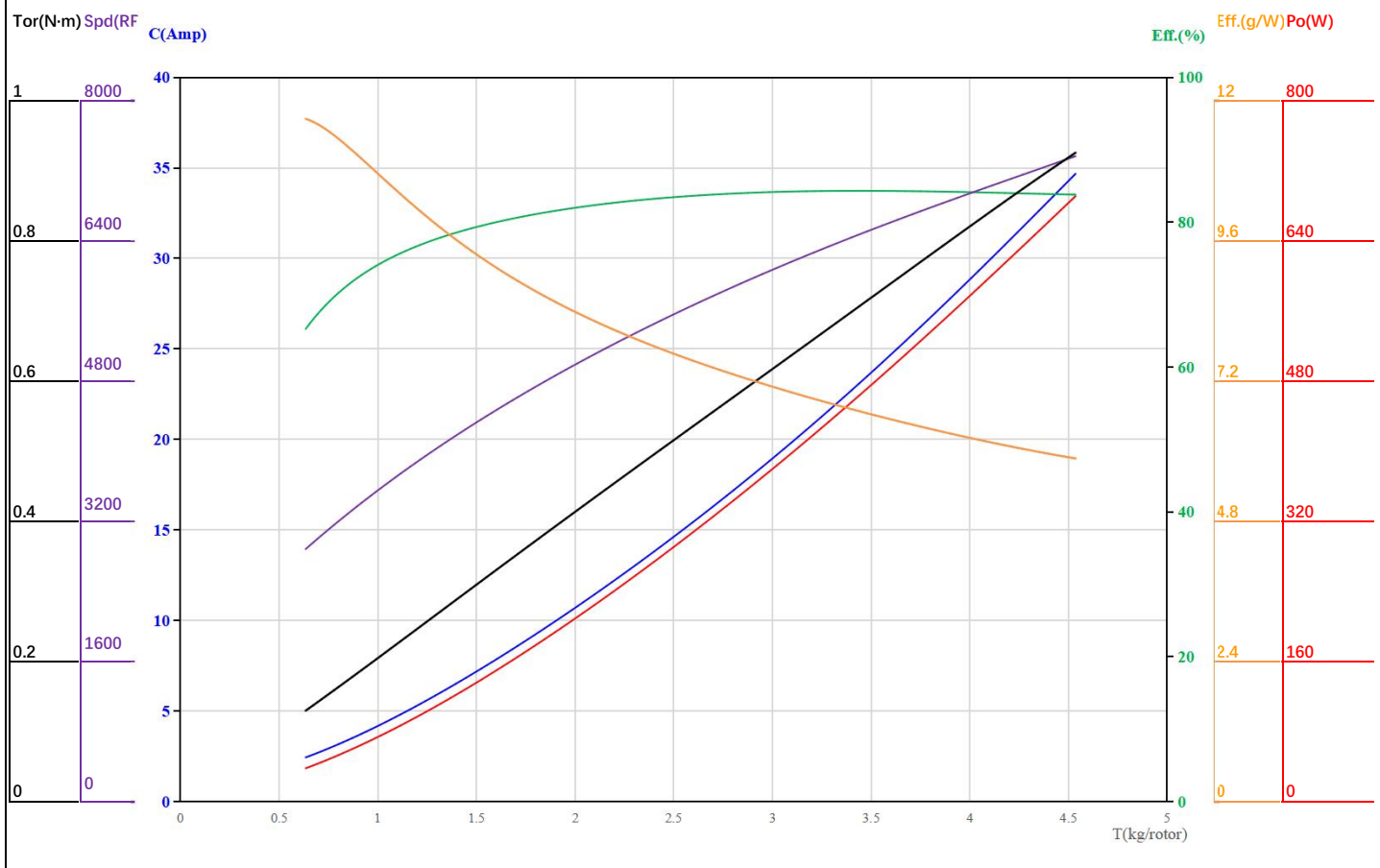
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
23V (6S LiPo)	MSC 19x5.7	33%	699	2.5	56.6	2538	12.4	0.16	48.1	57.0
		35%	797	2.9	66.0	2690	12.1	0.18	56.1	
		37%	897	3.3	76.5	2841	11.7	0.20	65.0	
		39%	998	3.8	87.9	2988	11.4	0.22	74.7	
		42%	1153	4.6	106.5	3203	10.8	0.25	90.5	
		45%	1309	5.5	126.7	3408	10.3	0.29	107.7	
		48%	1466	6.4	148.4	3604	9.9	0.32	126.1	
		51%	1627	7.4	171.5	3792	9.5	0.36	145.8	
		54%	1790	8.5	196.2	3973	9.1	0.39	166.8	
		57%	1958	9.7	222.7	4148	8.8	0.43	189.3	
		60%	2131	10.9	251.2	4321	8.5	0.46	213.5	
		63%	2311	12.2	282.1	4491	8.2	0.50	239.8	
		66%	2499	13.7	315.8	4662	7.9	0.54	268.4	
		69%	2695	15.3	352.6	4834	7.6	0.58	299.7	
		72%	2900	17.0	392.8	5008	7.4	0.63	333.9	
		75%	3112	18.9	436.6	5185	7.1	0.67	371.1	
		78%	3329	21.0	483.8	5363	6.9	0.72	411.2	
		81%	3550	23.1	533.8	5541	6.6	0.77	453.7	
84%	3769	25.4	585.6	5714	6.4	0.81	497.8			
87%	3981	27.6	637.5	5876	6.2	0.86	541.9			
90%	4179	29.8	687.0	6018	6.1	0.90	584.0			
100%	4598	34.4	792.8	6272	5.8	0.99	673.9			

\*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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# 380KV+MSC 17x5.8 负载性能参数 Load performance parameters

## 曲线图 Graph



## 拉力数据表 Motor Propeller Pull Test Data

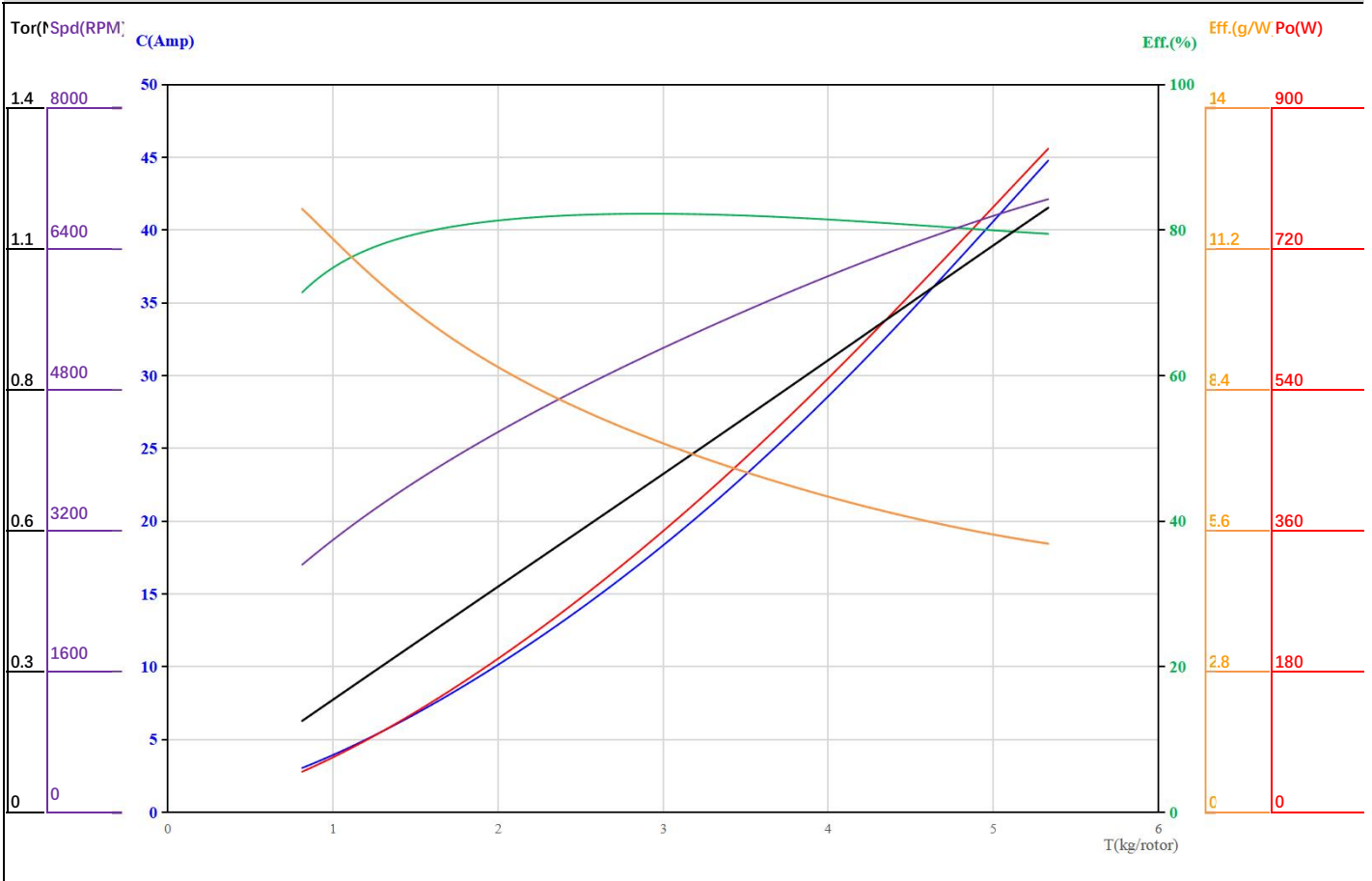
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque(N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 电机温度
23V (6S LiPo)	MSC 17x5.8	33%	673	2.6	59.8	2862	11.3	0.13	50.8	56.0
		35%	757	3.0	68.3	3017	11.1	0.15	58.0	
		37%	847	3.4	78.1	3177	10.9	0.17	66.4	
		39%	942	3.9	89.0	3340	10.6	0.19	75.7	
		42%	1090	4.7	107.5	3581	10.1	0.22	91.4	
		45%	1241	5.5	127.8	3816	9.7	0.25	108.7	
		48%	1395	6.5	149.8	4041	9.3	0.28	127.4	
		51%	1551	7.5	173.3	4258	9.0	0.31	147.3	
		54%	1710	8.6	198.3	4467	8.6	0.34	168.5	
		57%	1873	9.8	224.9	4672	8.3	0.37	191.2	
		60%	2041	11.0	253.5	4874	8.0	0.41	215.5	
		63%	2216	12.3	284.5	5075	7.8	0.44	241.9	
		66%	2401	13.8	318.4	5278	7.5	0.48	270.6	
		69%	2597	15.4	355.5	5482	7.3	0.52	302.2	
		72%	2804	17.2	396.2	5687	7.1	0.56	336.8	
		75%	3021	19.1	440.8	5893	6.9	0.60	374.7	
		78%	3247	21.2	489.2	6098	6.6	0.65	415.8	
		81%	3479	23.5	540.8	6297	6.4	0.69	459.7	
		84%	3712	25.8	594.5	6489	6.2	0.74	505.3	
87%	3937	28.2	648.5	6668	6.1	0.78	551.2			
90%	4146	30.4	699.8	699.8	6830	5.9	0.82	594.8		
100%	4536	34.7	798.1	798.1	7129	5.7	0.90	678.4		

\*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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# 380KV+MSC 18x6.1 负载性能参数 Load performance parameters

曲线图 Graph



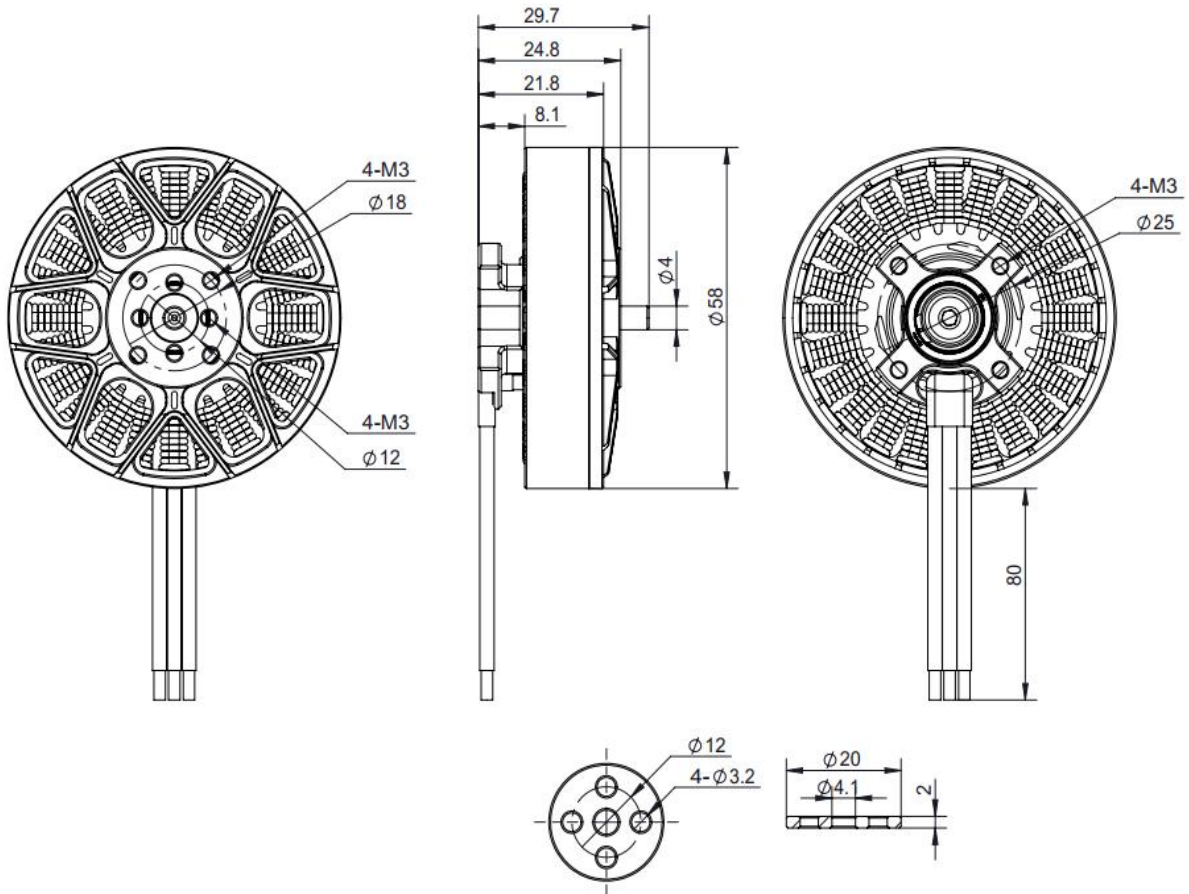
拉力数据表 Motor Propeller Pull Test Data

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
23V (6S LiPo)	MSC 18x6.1	33%	867	3.3	75.8	2801	11.4	0.19	64.4	73.0
		35%	978	3.8	88.1	2962	11.1	0.21	74.9	
		37%	1092	4.4	101.7	3120	10.7	0.24	86.4	
		39%	1209	5.0	116.3	3275	10.4	0.26	98.8	
		42%	1387	6.1	140.1	3499	9.9	0.30	119.1	
		45%	1569	7.2	165.9	3714	9.5	0.34	141.1	
		48%	1754	8.4	193.9	3920	9.0	0.38	164.8	
		51%	1941	9.7	223.9	4119	8.7	0.42	190.3	
		54%	2133	11.1	256.1	4313	8.3	0.46	217.7	
		57%	2330	12.6	291.0	4503	8.0	0.51	247.3	
		60%	2533	14.3	328.7	4692	7.7	0.55	279.4	
		63%	2743	16.0	369.8	4881	7.4	0.59	314.4	
		66%	2962	18.0	414.7	5071	7.1	0.64	352.5	
		69%	3189	20.1	463.8	5261	6.9	0.69	394.2	
		72%	3425	22.4	517.3	5453	6.6	0.74	439.7	
		75%	3668	24.9	575.3	5644	6.4	0.80	489.0	
		78%	3917	27.6	637.4	5832	6.1	0.85	541.8	
		81%	4167	30.5	702.8	6013	5.9	0.91	597.3	
		84%	4414	33.4	769.9	6185	5.7	0.96	654.4	
87%	4653	36.3	836.5	6342	5.6	1.01	711.1			
90%	4874	39.0	899.7	6480	5.4	1.06	764.7			
100%	5333	44.8	1032.3	6739	5.2	1.16	877.5			

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## 尺寸图 Dimension figure



## 应用搭配推荐 Recommended application combinations

旋翼电机 Motor	M5208 Light-340/380KV
旋翼桨叶 Propeller	MSC 19x5.7/MSC 18x6.1/MSC 17x5.8
搭配电调 ESC	XRotor Pro H60A 6S
电池电压 Battery	6S LiPo
单轴应用拉力区间 Takeoff weight / rotor	1.4~1.9kg
四轴最大起飞重量 Takeoff weight of quadrotor	5.6~7.6kg