

C8020 电机技术参数

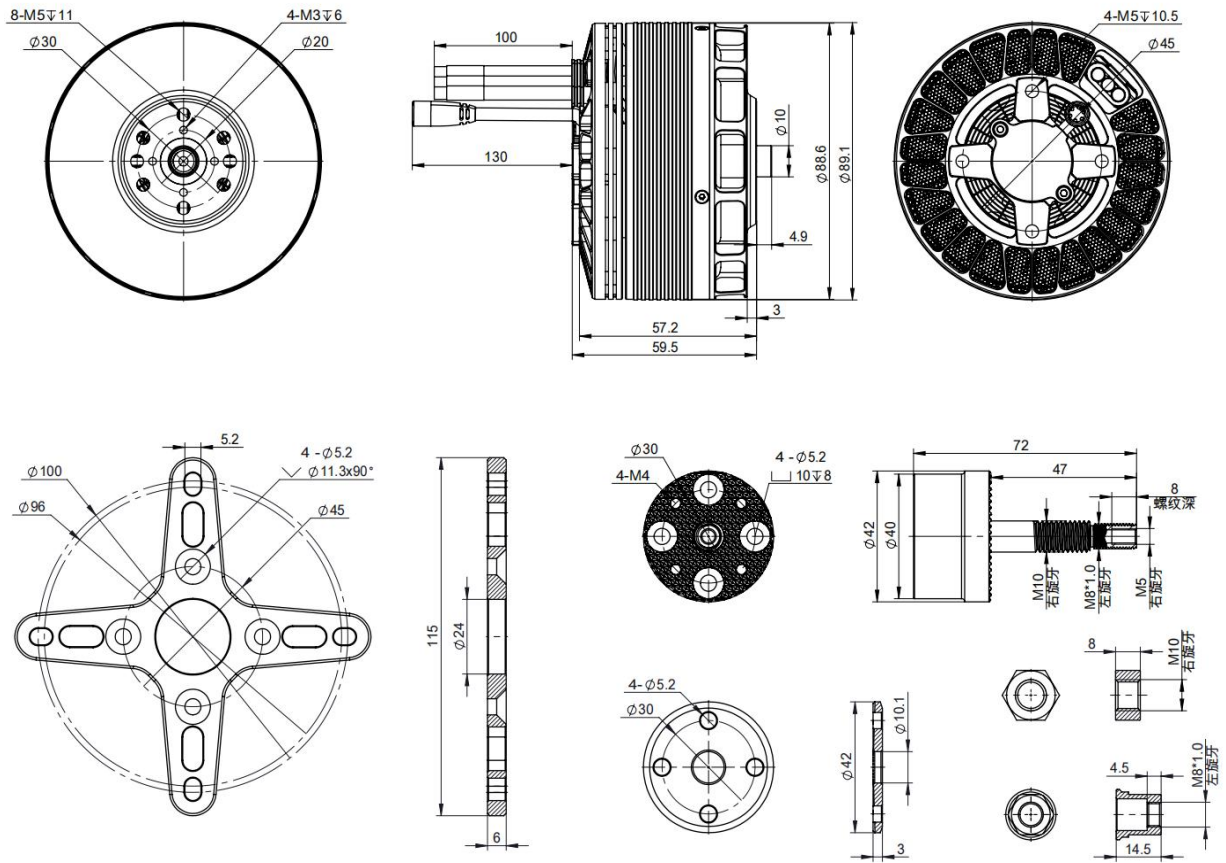
基础参数 Specification I

产品型号	C8020-210KV	防尘防水等级	IPX5
Model		Protection level	
电机尺寸	Φ89.1*H59.5mm	槽极数	24槽28极
Motor Size		Slot & Pole	24N28P
定子尺寸	80x20mm	电机整体动平衡标准	≤20mg
Stator Size		Dynamic balance	
定子工艺	高品质硅钢片, 防锈处理, 耐180°C高温涂覆	轴承型号	高品质防水轴承
Stator process	High standard silicon steel sheet, rust proof, 180°C high temperature resistance paint-coat	Bearing	Water proof bearing
漆包线等级	240°C	出轴轴径	Φ10mm
Enamelled wire		Motor axle diameter	
磁铁等级	180°C	桨叶安装孔尺寸	4×M3@D20mm & 8×M5@D30mm
Magnet		Props mounting dimensions	
线圈绝缘测试	500V交流耐压测试	电机安装孔尺寸	4×M5@D45mm
Isolation test	500V AC high voltage resistance test	Motor mounting dimensions	
额定输入功率	1430 W	额定输出功率	1180 W
Rated power input		Rated power output	

技术参数 Specification II

KV值	210KV
KV	
额定电压	LiPo-12S (48V)
Battery(LiPo)	
空载电流	6.93A
No-load current	
最大电流/A(非密闭环境温度 ≤25 °C)	160A
Maximum current (non-hermetic ambient temperature ≤ 25°C)	
额定拉力	7.5kg (48V@23x10)
Rated thrust	
最大拉力	22kg (48V@23x10)
Max thrust	
相间内阻	9.08mΩ
Resistance	
出线规格	漆包线直出
Wire Size	enameled wire direct lead-out
三相线出线长度	100mm
Three-phase wires length	
磁编出线长度	130mm
Magnetic encoder cable length	
电机重量(含线)	838g
Weight (with wires)	

尺寸图 Dimension Figure

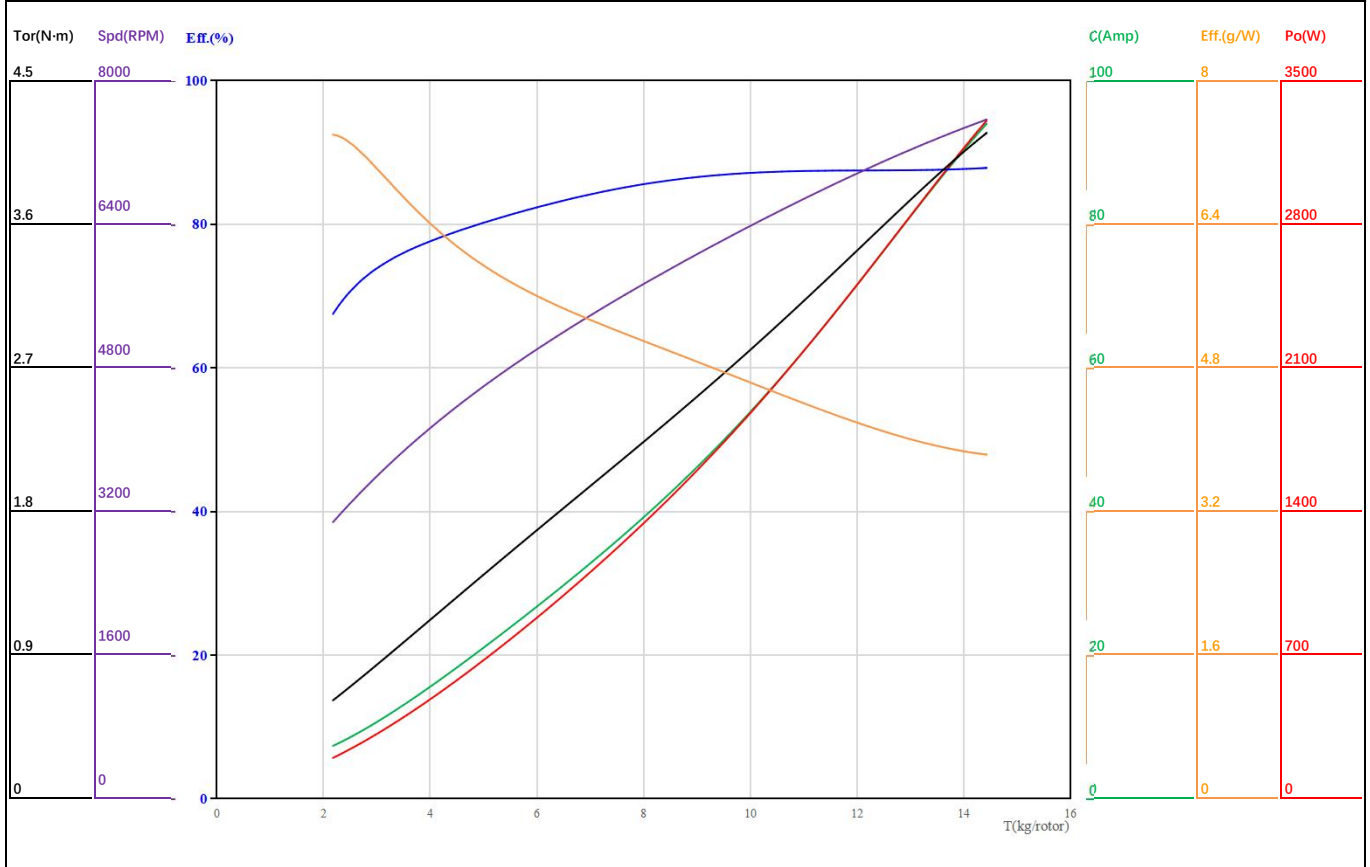


应用搭配推荐 Recommended Application Combinations

巡航电机型号 Motor	C8020-210KV
推荐搭配桨叶 Propeller	22x10 / 23x10
推荐搭配电调 ESC	XRotor Pro H130A 14S BLDC IPC / XRotor Pro H200A 14S BLDC IPC
推荐搭配电池 Battery	12S LiPo
单发电机起飞重量 Takeoff weight of Single motor	35~40kg

210KV+22x10 负载性能参数 (40V) Load performance parameters

曲线图 Graph



拉力数据表 Thrust Test Data

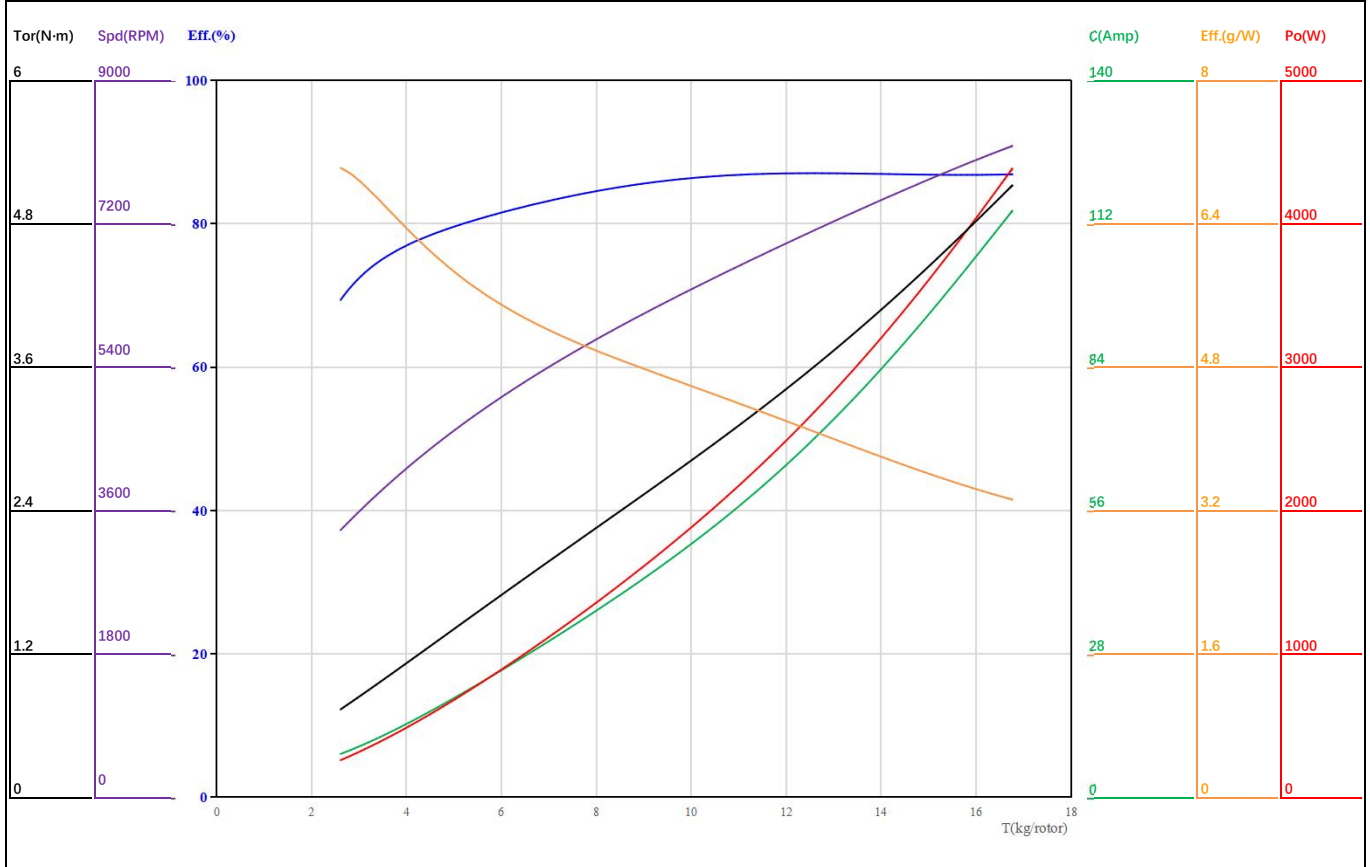
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque (N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 温度
40V (12S LiPo)	22x10	35%	2180	7.4	294.7	3081	7.4	0.62	198.9	/
		37%	2423	8.2	330.2	3240	7.3	0.68	231.0	
		39%	2689	9.3	373.1	3407	7.2	0.75	268.7	
		42%	3120	11.2	449.2	3660	6.9	0.87	334.3	
		45%	3572	13.4	536.5	3909	6.7	1.00	409.2	
		48%	4036	15.8	631.8	4146	6.4	1.13	491.0	
		51%	4509	18.3	733.0	4372	6.2	1.26	579.1	
		54%	4990	21.0	839.5	4589	5.9	1.40	673.1	
		57%	5486	23.8	951.8	4799	5.8	1.54	773.7	
		60%	6002	26.8	1071.8	5007	5.6	1.68	882.5	
		63%	6548	30.0	1201.7	5216	5.4	1.83	1001.9	
		66%	7131	33.6	1345.0	5430	5.3	2.00	1134.6	
		69%	7759	37.6	1505.4	5651	5.2	2.17	1283.5	
		72%	8435	42.2	1687.5	5880	5.0	2.36	1452.1	
		75%	9159	47.4	1895.7	6117	4.8	2.57	1643.2	
		78%	9927	53.3	2133.5	6359	4.7	2.79	1858.6	
		81%	10726	60.0	2400.8	6601	4.5	3.03	2097.3	
84%	11538	67.2	2691.9	6837	4.3	3.29	2354.4			
87%	12334	74.7	2991.5	7056	4.1	3.54	2617.1			
90%	13076	81.8	3275.6	7249	4.0	3.78	2866.9			
100%	14423	94.0	3761.7	7565	3.8	4.17	3304.1			

*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，仅供参考。

* The above data was measured by HOBBYWING Laboratory at room temperature 25°C, at sea level, with varying throttle input, for reference only.

210KV+22x10 负载性能参数 (44V) Load performance parameters

曲线图 Graph



拉力数据表 Thrust Test Data

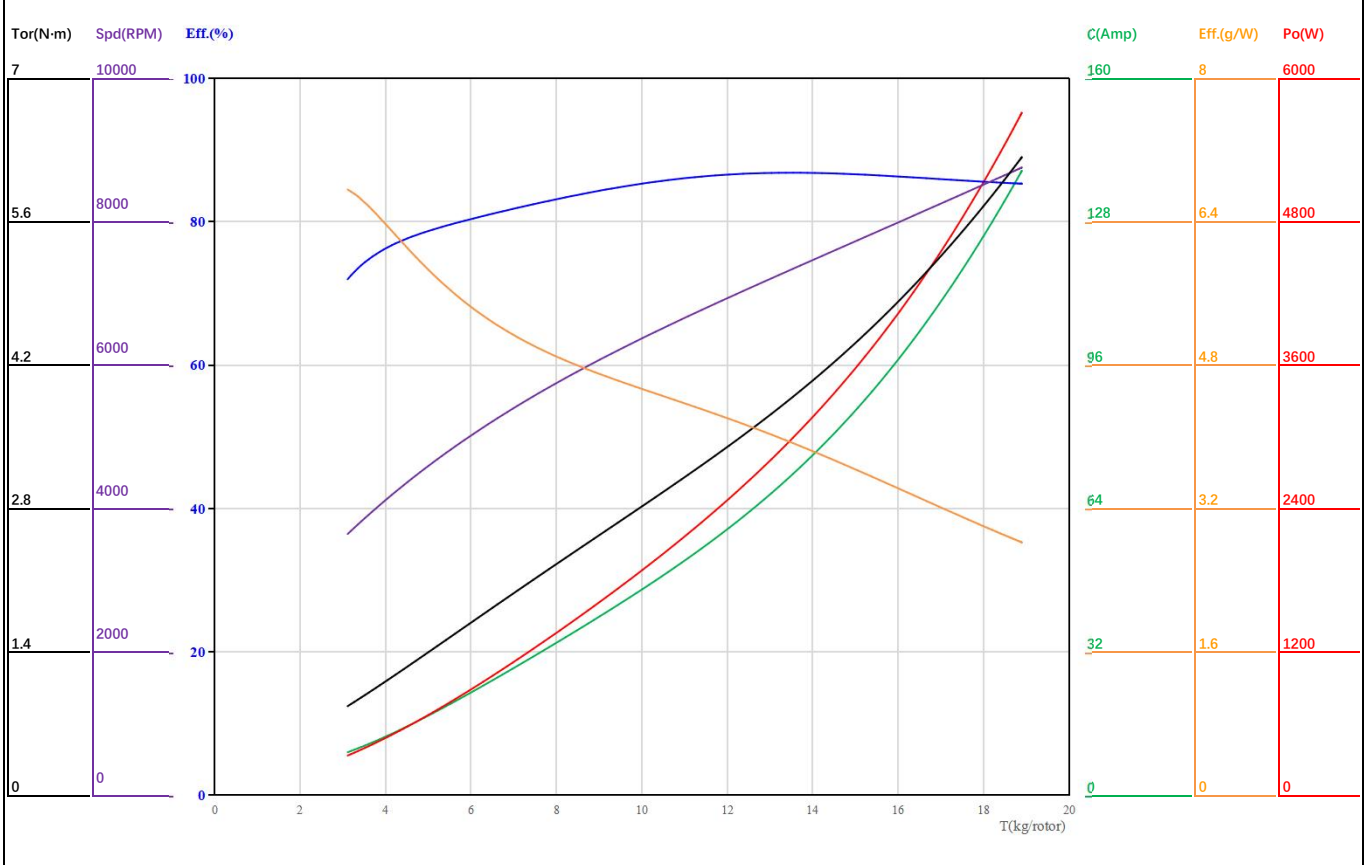
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque (N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 温度
44V (12S LiPo)	22x10	35%	2612	8.4	371.9	3353	7.0	0.73	258.0	/
		37%	2893	9.5	417.4	3522	6.9	0.81	299.1	
		39%	3200	10.7	471.6	3700	6.8	0.90	347.2	
		42%	3696	12.9	567.2	3970	6.5	1.04	430.4	
		45%	4219	15.4	676.5	4237	6.2	1.18	525.3	
		48%	4759	18.1	796.6	4493	6.0	1.34	629.6	
		51%	5312	21.0	925.4	4739	5.7	1.50	742.7	
		54%	5883	24.1	1062.7	4976	5.5	1.66	864.4	
		57%	6474	27.4	1209.2	5207	5.4	1.83	996.0	
		60%	7096	31.0	1367.3	5437	5.2	2.00	1139.5	
		63%	7756	35.0	1539.9	5667	5.0	2.19	1297.4	
		66%	8463	39.3	1731.2	5901	4.9	2.38	1473.0	
		69%	9222	44.2	1946.1	6141	4.7	2.60	1670.0	
		72%	10036	49.7	2190.4	6388	4.6	2.83	1892.3	
		75%	10904	56.1	2470.0	6642	4.4	3.08	2143.8	
		78%	11816	63.3	2790.1	6902	4.2	3.36	2427.6	
		81%	12756	71.6	3152.1	7163	4.0	3.66	2744.0	
		84%	13700	80.6	3550.0	7418	3.9	3.98	3088.1	
87%	14610	90.0	3966.5	7656	3.7	4.30	3446.3			
90%	15440	99.2	4370.5	7865	3.5	4.61	3794.6			
100%	16760	114.5	5043.9	8176	3.3	5.12	4383.2			

*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，仅供参考。

* The above data was measured by HOBBYWING Laboratory at room temperature 25°C, at sea level, with varying throttle input, for reference only.

210KV+22x10 负载性能参数 (48V) Load performance parameters

曲线图 Graph



拉力数据表 Thrust Test Data

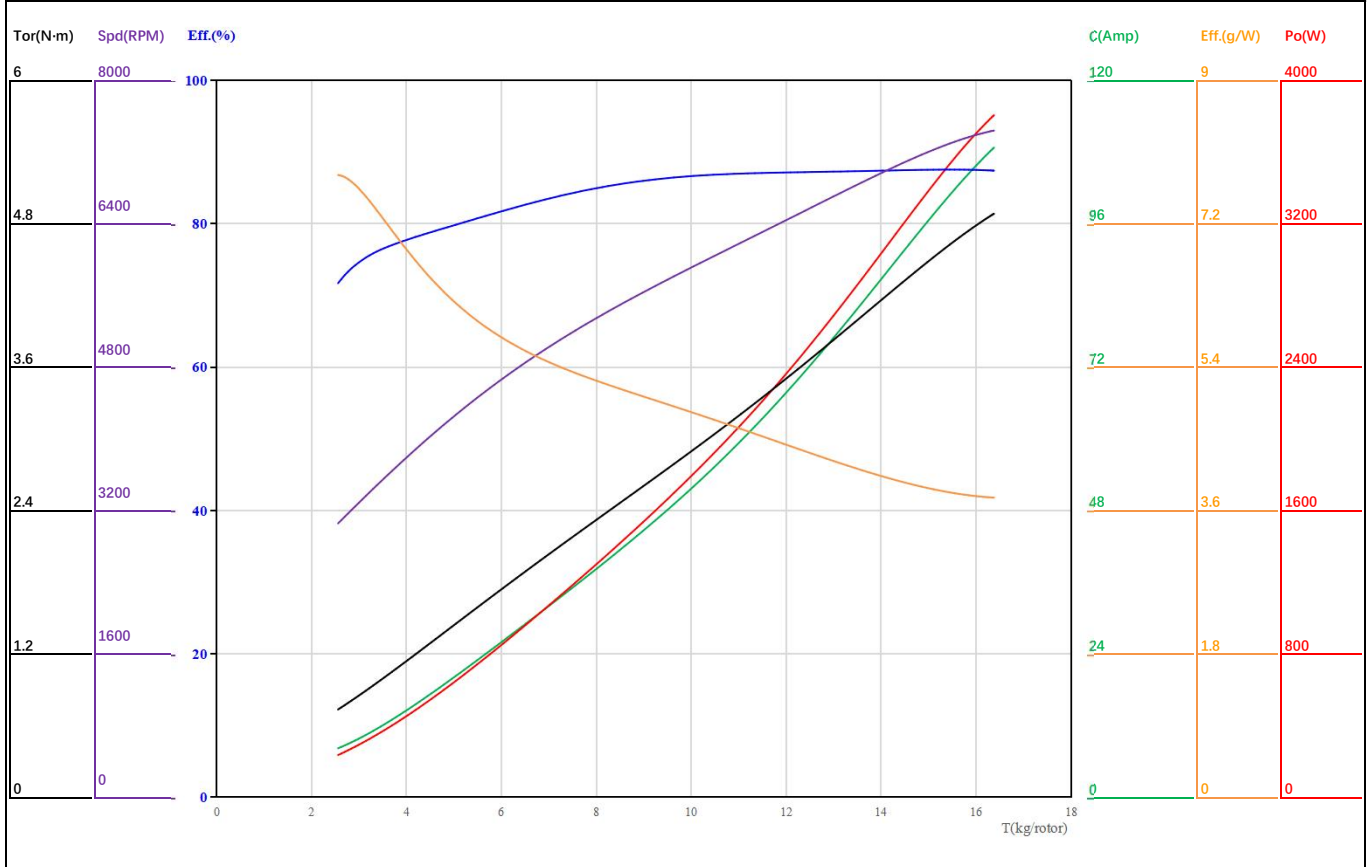
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque (N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 温度
48V (12S LiPo)	22x10	35%	3115	9.6	460.8	3644	6.8	0.87	331.7	82°C
		37%	3437	10.8	517.0	3822	6.6	0.96	382.3	
		39%	3781	12.1	582.7	4003	6.5	1.05	439.8	
		42%	4329	14.5	697.9	4278	6.2	1.20	538.8	
		45%	4912	17.3	831.2	4552	5.9	1.37	652.8	
		48%	5527	20.4	980.9	4821	5.6	1.55	781.1	
		51%	6174	23.8	1145.6	5086	5.4	1.73	923.7	
		54%	6857	27.6	1324.8	5347	5.2	1.93	1081.2	
		57%	7579	31.6	1518.9	5606	5.0	2.14	1254.6	
		60%	8345	36.0	1729.2	5863	4.8	2.35	1445.1	
		63%	9157	40.8	1958.3	6120	4.7	2.58	1654.8	
		66%	10018	46.0	2210.4	6378	4.5	2.82	1886.3	
		69%	10927	51.9	2491.5	6638	4.4	3.08	2143.6	
		72%	11880	58.5	2809.7	6901	4.2	3.36	2431.2	
		75%	12869	66.1	3174.0	7167	4.1	3.67	2755.1	
		78%	13880	74.8	3593.0	7434	3.9	4.01	3119.7	
		81%	14893	84.7	4071.1	7700	3.7	4.38	3527.8	
84%	15882	95.8	4603.2	7959	3.5	4.77	3975.1			
87%	16810	107.6	5169.5	8204	3.3	5.18	4447.0			
90%	17635	119.3	5730.3	8422	3.1	5.57	4912.1			
100%	18893	139.4	6695.0	8756	2.8	6.23	5712.1			

*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，机壳温度为90%油门下运行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 housing temperature is measured after running for 10 minutes at 90% throttle, for reference only.

210KV+23x10 负载性能参数 (40V) Load performance parameters

曲线图 Graph



拉力数据表 Thrust Test Data

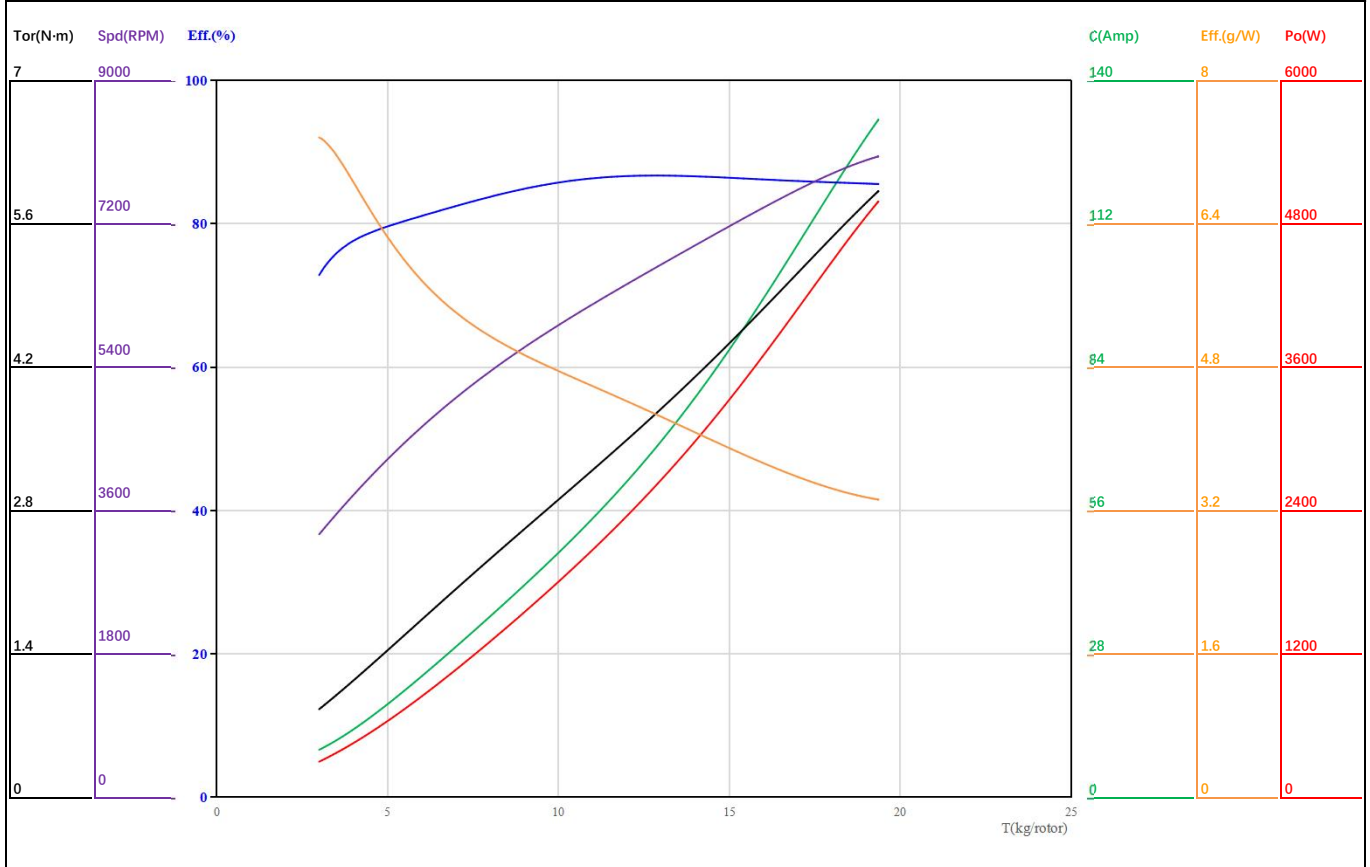
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque (N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 温度
40V (12S LiPo)	23x10	35%	2559	8.2	327.5	3056	7.8	0.73	234.9	/
		37%	2843	9.2	367.9	3206	7.7	0.81	271.5	
		39%	3144	10.4	416.8	3362	7.5	0.89	313.7	
		42%	3617	12.6	503.9	3602	7.2	1.03	387.1	
		45%	4108	15.1	604.2	3842	6.8	1.17	471.2	
		48%	4612	17.9	714.8	4078	6.5	1.32	564.8	
		51%	5131	20.8	833.5	4307	6.2	1.48	667.2	
		54%	5667	24.0	959.7	4530	5.9	1.64	778.2	
		57%	6228	27.3	1093.8	4748	5.7	1.81	898.6	
		60%	6819	30.9	1237.2	4962	5.5	1.98	1029.4	
		63%	7451	34.8	1392.3	5174	5.4	2.16	1172.4	
		66%	8128	39.0	1562.1	5385	5.2	2.36	1329.6	
		69%	8856	43.7	1751.0	5598	5.1	2.57	1503.8	
		72%	9636	49.1	1964.1	5814	4.9	2.79	1698.2	
		75%	10467	55.1	2207.2	6036	4.7	3.03	1916.9	
		78%	11339	62.1	2484.7	6266	4.6	3.30	2163.2	
		81%	12240	69.9	2797.0	6504	4.4	3.58	2438.6	
84%	13146	78.3	3136.3	6744	4.2	3.88	2737.6			
87%	14029	87.0	3483.2	6973	4.0	4.17	3044.9			
90%	14848	95.1	3807.6	7170	3.9	4.44	3332.5			
100%	16375	108.7	4353.3	7441	3.8	4.88	3805.7			

*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，仅供参考。

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210KV+23x10 负载性能参数 (44V) Load performance parameters

曲线图 Graph



拉力数据表 Thrust Test Data

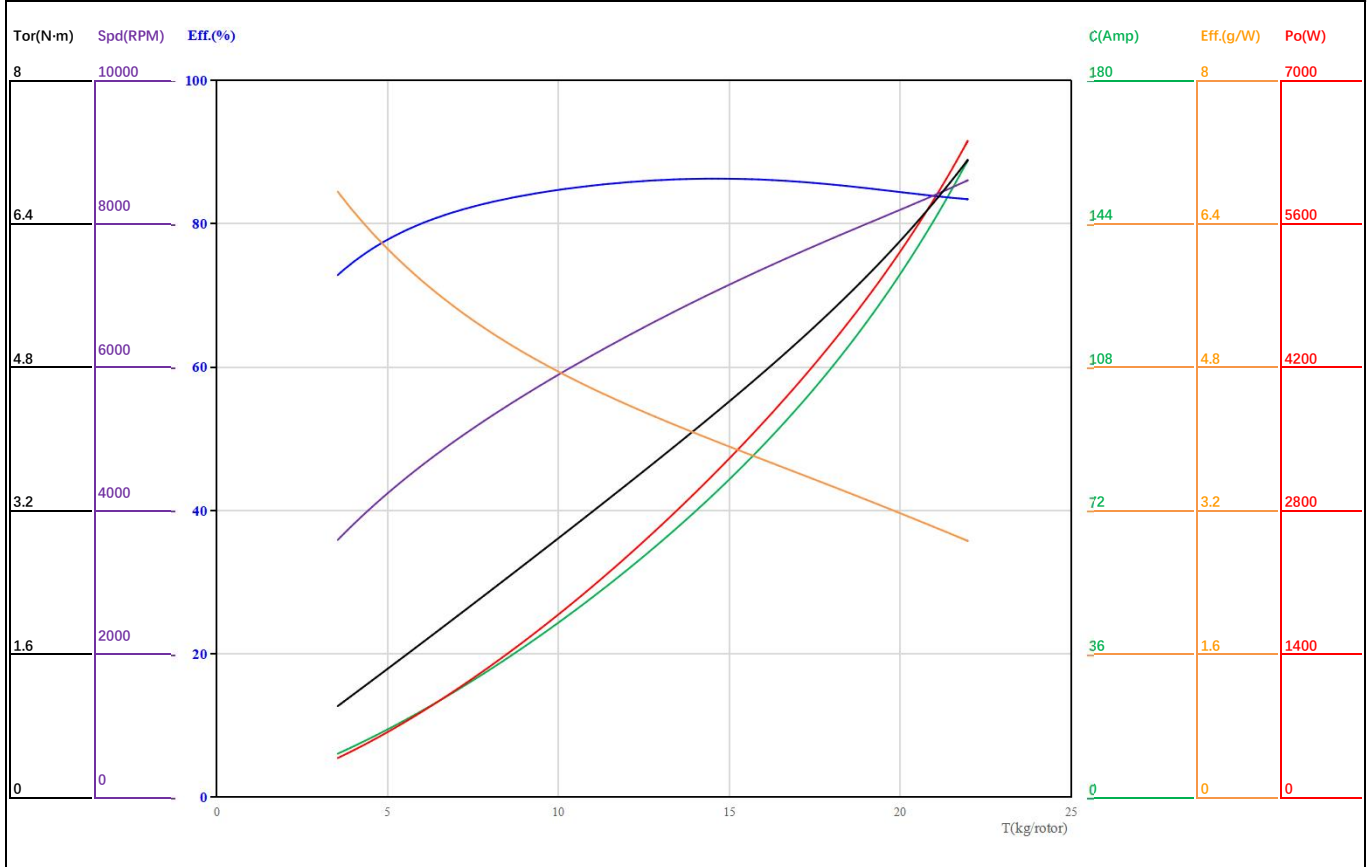
Voltage(V) 工作电压	Propeller 螺旋桨	Throttle(%) 油门	Thrust(g) 拉力	Current(A) 电流	Power Input(W) 输入功率	Speed(RPM) 转速	Efficiency(g/W) 力效	Torque (N-m) 扭矩	Power Output(W) 输出功率	Temperature(°C) 温度
44V (12S LiPo)	23x10	35%	3002	9.3	407.7	3301	7.4	0.86	297.0	/
		37%	3327	10.4	458.6	3466	7.3	0.95	343.9	
		39%	3684	11.8	521.5	3642	7.1	1.05	399.5	
		42%	4258	14.4	635.4	3913	6.7	1.21	497.3	
		45%	4861	17.4	767.7	4182	6.3	1.39	609.5	
		48%	5479	20.7	912.8	4442	6.0	1.58	733.5	
		51%	6109	24.2	1067.4	4690	5.7	1.77	867.3	
		54%	6752	27.9	1230.0	4927	5.5	1.96	1010.3	
		57%	7416	31.8	1401.3	5156	5.3	2.16	1163.5	
		60%	8110	36.0	1583.7	5380	5.1	2.36	1328.7	
		63%	8846	40.4	1781.1	5602	5.0	2.57	1508.9	
		66%	9635	45.4	1998.6	5826	4.8	2.80	1708.0	
		69%	10485	50.9	2242.9	6055	4.7	3.04	1930.5	
		72%	11402	57.2	2521.8	6291	4.5	3.31	2181.4	
		75%	12385	64.6	2844.1	6536	4.4	3.60	2466.2	
		78%	13426	73.0	3217.1	6790	4.2	3.92	2789.3	
		81%	14508	82.7	3643.2	7051	4.0	4.27	3152.4	
		84%	15604	93.4	4113.3	7311	3.8	4.64	3549.0	
87%	16674	104.5	4602.2	7555	3.6	5.00	3959.4			
90%	17664	115.0	5066.9	7764	3.5	5.35	4349.5			
100%	19361	132.3	5828.5	8046	3.3	5.92	4986.2			

*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，仅供参考。

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210KV+23x10 负载性能参数 (48V) Load performance parameters

曲线图 Graph



拉力数据表 Thrust 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) 温度
48V (12S LiPo)	23x10	35%	3546	10.9	524.6	3589	6.8	1.02	382.1	93°C
		37%	3925	12.4	597.0	3770	6.6	1.12	444.0	
		39%	4338	14.1	678.7	3957	6.4	1.24	514.7	
		42%	5000	17.0	816.9	4238	6.1	1.43	635.3	
		45%	5701	20.2	971.6	4514	5.9	1.63	771.7	
		48%	6428	23.8	1141.6	4781	5.6	1.84	922.6	
		51%	7179	27.6	1326.7	5039	5.4	2.06	1087.5	
		54%	7957	31.8	1528.3	5290	5.2	2.29	1267.3	
		57%	8766	36.4	1748.7	5538	5.0	2.53	1464.5	
		60%	9615	41.4	1991.3	5785	4.8	2.78	1681.6	
		63%	10512	47.1	2260.5	6035	4.7	3.04	1922.6	
		66%	11465	53.3	2561.3	6290	4.5	3.33	2191.6	
		69%	12478	60.3	2899.0	6549	4.3	3.63	2491.8	
		72%	13553	68.3	3279.3	6813	4.1	3.96	2827.2	
		75%	14684	77.2	3707.5	7078	4.0	4.32	3199.3	
		78%	15859	87.2	4188.3	7342	3.8	4.70	3609.7	
		81%	17056	98.3	4723.8	7598	3.6	5.10	4055.8	
84%	18243	110.6	5310.9	7843	3.4	5.52	4533.8			
87%	19377	123.5	5935.2	8070	3.3	5.95	5031.3			
90%	20398	136.6	6562.7	8276	3.1	6.38	5526.5			
100%	21975	159.9	7680.7	8606	2.9	7.11	6408.3			

*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，机壳温度为90%油门下运行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 housing temperature is measured after running for 10 minutes at 90% throttle, for reference only.