

V5212

Specification I

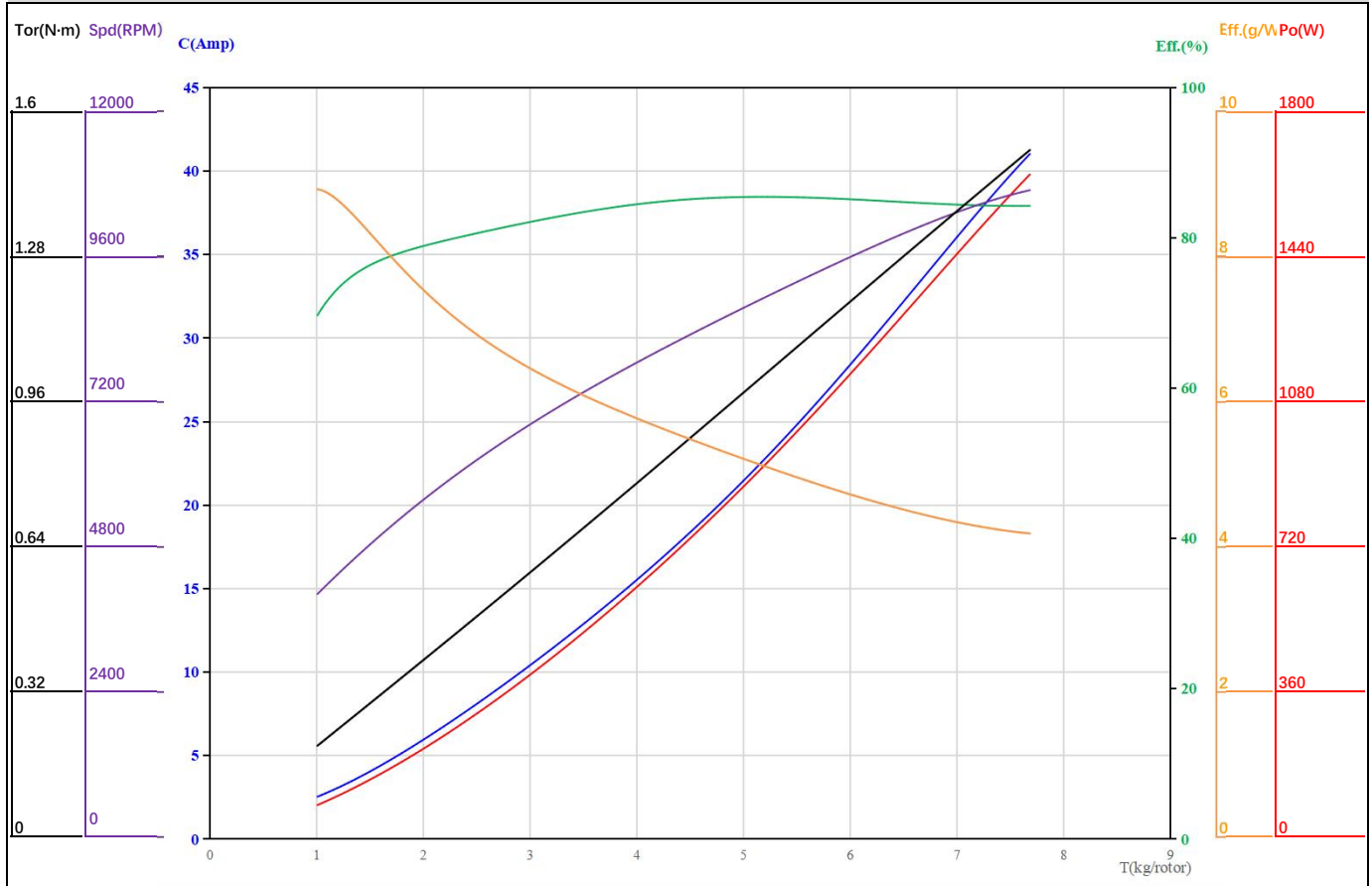
Model	V5212-275KV	Protection level	IPX5
Motor Size	Φ58*H37.2mm	Slot& Pole	24N28P
Stator Size	Φ52*H12mm	Dynamic balance	≤10mg
Stator process	High standard silicon steel sheet, rust proof, 180°C high temperature resistance paint-coat	Bearing	Water proof bearing
Enamelled wire	200°C	Motor axle diameter	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*M3@D25mm
Rated power input	690W	Rated power output	574W

Specification II

KV	275KV
Battery(LiPo)	LiPo-12S
No-load current	2.25A
Maximum current (Non-hermetic Ambient Temperature ≤ 25°C)	53A
Max power	2469W
Max thrust	9.1kg
Resistance	64mΩ
Wire Size	16AWG
Wire length	600mm
Weight (With wire)	248g

275KV+MSC 16x5.4 Load performance parameters

Graph



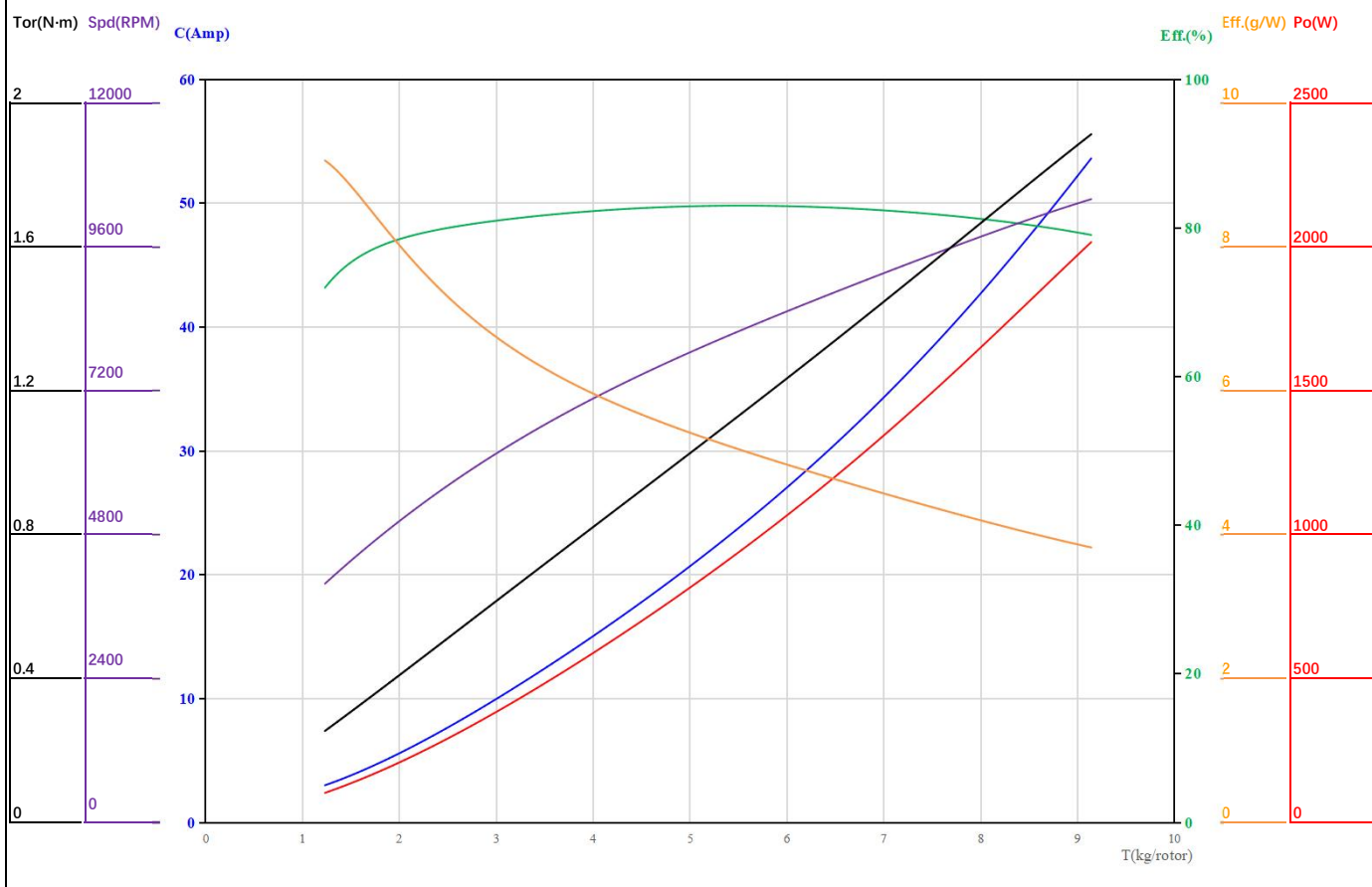
Motor Propeller Pull Test Data

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 16x5.4	33%	1049	2.6	121.5	3978	8.6	0.21	85.7	85.4
		35%	1195	3.1	140.5	4220	8.5	0.23	102.8	
		37%	1334	3.5	160.2	4442	8.3	0.26	120.0	
		39%	1468	3.9	180.8	4650	8.1	0.28	137.6	
		42%	1667	4.6	213.7	4948	7.8	0.32	165.4	
		45%	1871	5.4	249.6	5238	7.5	0.36	195.7	
		48%	2084	6.3	289.4	5527	7.2	0.40	229.3	
		51%	2311	7.2	333.7	5818	6.9	0.44	267.0	
		54%	2553	8.3	383.0	6113	6.7	0.48	309.4	
		57%	2810	9.5	437.4	6410	6.4	0.53	356.7	
		60%	3083	10.8	497.0	6707	6.2	0.58	409.3	
		63%	3369	12.2	562.0	7003	6.0	0.64	467.1	
		66%	3668	13.7	632.4	7296	5.8	0.69	530.1	
		69%	3977	15.4	708.3	7586	5.6	0.75	598.1	
		72%	4294	17.2	790.1	7873	5.4	0.81	670.9	
		75%	4618	19.1	877.9	8156	5.3	0.88	748.4	
		78%	4947	21.1	972.2	8437	5.1	0.94	830.5	
		81%	5283	23.3	1073.5	8717	4.9	1.01	917.4	
		84%	5625	25.7	1182.5	8997	4.8	1.07	1009.4	
		87%	5977	28.2	1300.0	9276	4.6	1.14	1107.1	
		90%	6343	31.0	1426.9	9556	4.4	1.21	1211.4	
		100%	7684	41.0	1889.4	10363	4.1	1.47	1592.1	

*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.

275KV+MSC 17x5.8 Load performance parameters

Graph

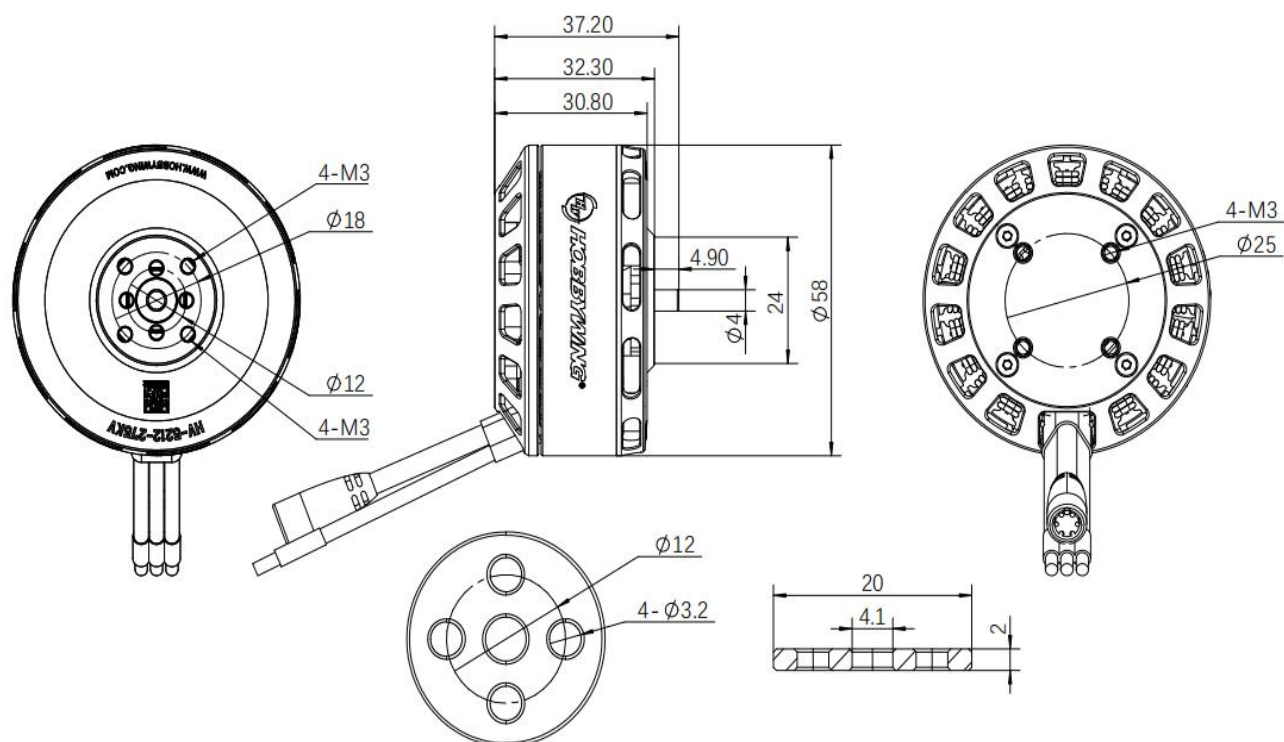


Motor Propeller Pull Test Data

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 17x5.8	33%	1275	3.1	143.8	3918	8.9	0.25	104.5	93.0
		35%	1445	3.6	167.2	4154	8.6	0.29	125.1	
		37%	1611	4.2	192.0	4376	8.4	0.32	146.5	
		39%	1774	4.7	218.3	4587	8.1	0.35	169.0	
		42%	2017	5.7	260.6	4889	7.7	0.40	204.7	
		45%	2264	6.7	306.8	5179	7.4	0.45	243.6	
		48%	2520	7.8	357.4	5464	7.1	0.50	286.1	
		51%	2787	9.0	413.1	5746	6.7	0.55	333.0	
		54%	3069	10.3	474.4	6026	6.5	0.61	384.8	
		57%	3367	11.8	541.9	6306	6.2	0.67	441.9	
		60%	3683	13.4	616.1	6584	6.0	0.73	504.9	
		63%	4018	15.1	697.5	6862	5.8	0.80	574.1	
		66%	4371	17.1	786.5	7138	5.6	0.87	649.6	
		69%	4743	19.2	883.7	7412	5.4	0.94	731.9	
		72%	5132	21.5	989.8	7685	5.2	1.02	821.2	
		75%	5536	24.0	1105.5	7956	5.0	1.10	917.7	
		78%	5955	26.7	1231.7	8226	4.8	1.19	1021.8	
		81%	6385	29.7	1369.2	8496	4.7	1.27	1133.6	
		84%	6824	33.0	1518.7	8766	4.5	1.37	1253.2	
		87%	7271	36.5	1680.5	9035	4.3	1.46	1380.1	
		90%	7721	40.3	1854.5	9300	4.2	1.55	1513.5	
		100%	9140	53.6	2469.5	10067	3.7	1.85	1952.7	

*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.

Dimension figure



Recommended application combinations

Motor	V5212-275KV
Propeller	MSC 16x5.4 / MSC 17x5.8
ESC	XRotor Pro H60A 14S / XRotor Pro H80 14S IPC
Battery	LiPo-12S
Takeoff weight / rotor	3.5-4kg
Takeoff weight of quadrotor	14-16kg