



## VAX 5330 VTOL Drone Brushless DC Motor

Our Product Introduction

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### Basic Information

- Place of Origin: Guangdong, China
- Brand Name: GS
- Model Number: 5330 220KV 260KV
- Price: Negotiable
- Delivery Time: 6-8
- Payment Terms: T/T
- Supply Ability: 100



### Product Specification

- Motor Model: VAX 5330 EEE V1.0
- Motor Size: D:61.1 X63 Mm
- Propeller Mounting Holes: D:31 M3x4, D:20 M3x4
- Shaft Diameter: IN: 8 Mm
- Bearing: 688ZZ\*2/1980\*1
- Cable Length: 150 Mm 14# Awg(Black) Silicone
- Rotor Balance:  $\leq 5$  Mg
- Motor Balance:  $\leq 10$  Mg
- Motor Mounting Holes: D:30 M4x4, D:44 M4x4
- Disruptive Test: 500 V
- Highlight: Drone Brushless DC Motor, VAX 5330 Brushless DC Motor



### More Images



## Product Description

### VAX 5330 VTOL Drone Brushless DC Motor

1. Designed for VTOL, AIRCRAFT, XCLASS to carry 8-10 kg, supports 12S voltage.
2. For long range flight. It also retains the excellent features and characteristics of the previous generation and improves the safety and durability of the motor, which fully meets the demanding requirements of various industries.

# VAX5330

ENERGY EFFICIENT 220KV  
ENTHUSIASTS EXTREME EDITION

4.0~5.0 kgf 11.2 kgf

RECOMMENDED  
HOVER THRUST



MAXIMUM  
THRUST

MAXIMUM THRUST MAY DEPEND ON  
BATTERY LEVEL, PROPELLER TYPE,  
AIR PRESSURE AND OTHER CONDITIONS

OPTIMIZED  
WEIGHT

570g

EFFICIENCY >83%



MAD VAX 5330 EEE 220KV 20x10 AMPX 80A (5-14S)

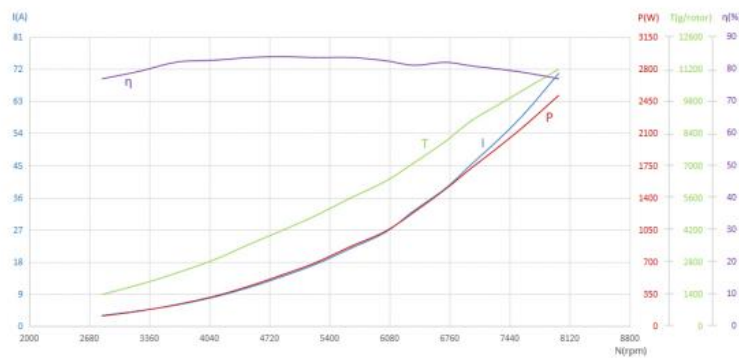
12S

MAX  
93°C

## Analytical Graph of Motor Operation

I - Current, P - Input Power,  $\eta$  - Electrical Efficiency, T - Thrust, N - Rotational Speed

The data above was measured with an input voltage of 48 V, at a temperature of 25°C and sea level. The rotational speed was adjusted by the throttle.

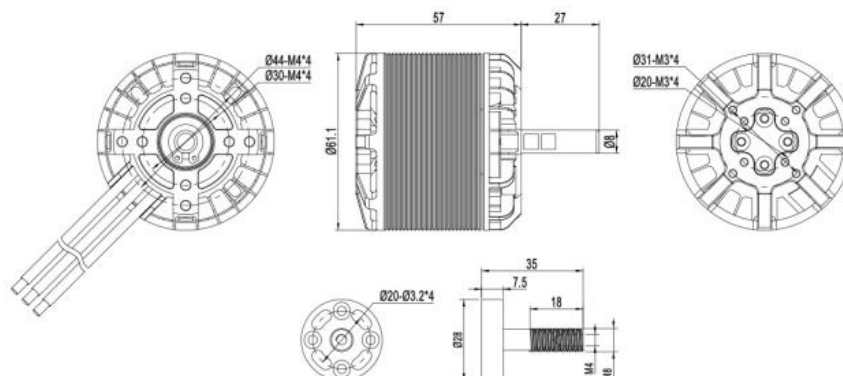


## Motor Data

Motor Model	MAD VAX 5330 EEE V1.0	Number of pole pairs	7
Stator	TAIWAN / Anticorrosive	Varnished wire Degree	180°C
Motor Size	D:61.1 × 84 mm	Magnet Degree	150°C
Degree of Protection	Rain protection	Cable Length	150 mm 14# Awg(Black) silicone
Centrifugal Heat Dissipation	Independent	Rotor Balance	≤5 mg
Propeller Mounting Holes	D:31 M3×4, D:20 M3×4	Motor Balance	≤10 mg
Shaft Diameter	IN: 8 mm	Motor Mounting Holes	D:30 M4×4, D:44 M4×4
Bearing	EZO 688ZZ*2 / NMB 1980*1	Disruptive test	500 V
Additional Accessories	Prop Adapter(M8) *1, Propeller Plate *1, 4.0mm Bullet Connector*3, Heat Shrinkable Tube*3, M4*12mm *4 Motor Screws, M3*8mm *4 Prop Adapter Fixing Screws, M8 Nut*1, Sticker*1		

## Specifications

RPM/V	220KV	Nominal Voltage	12S lipo battery
No Load Current	1.35A / 30V	Internal resistance	45mΩ
Motor Weight	570 g	Product Boxed Weight	750g (110 x 110 x 65 mm)
Maximum Current	70.8 A	Maximum Power	3263W
Maximum thrust	11.2 kg	Maximum Torque	3 Nm
Recommended ESC	MAD AMPX 80A (5-14S)	Recommended Propellers	18x12, 19x10, 20x10, 17x8X3
UAV take-off weight	12S-20"/ 17kg--Quadcopter 25.5kg--Hexacopter 34kg--Octocopter	Single rotor take-off weight	4kg ~ 5kg



MAD VAX 5330 EEE 220KV 18x12 AMPX 80A (5-14S)							12S	MAX 76℃	
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.23	2.72	131.2	103.0	0.343	2867	1131	78.5	8.6
35	48.20	3.86	186.1	151.0	0.441	3270	1465	81.1	7.9
40	48.14	5.64	271.5	228.4	0.580	3760	1939	84.1	7.1
45	48.08	7.72	371.2	315.2	0.718	4192	2415	84.9	6.5
50	48.02	9.86	473.5	403.7	0.842	4579	2877	85.3	6.1
55	47.94	12.53	600.7	515.2	0.992	4959	3405	85.8	5.7
60	47.82	16.07	768.5	665.2	1.184	5365	4067	86.6	5.3
65	47.72	19.62	936.3	803.7	1.332	5762	4676	85.8	5.0
70	47.57	24.19	1150.7	983.4	1.529	6142	5294	85.5	4.6
75	47.41	29.4	1393.9	1178.6	1.731	6502	5961	84.6	4.3
80	47.25	34.59	1634.4	1368.2	1.914	6826	6625	83.7	4.1
85	47.04	41.28	1941.8	1605.1	2.147	7139	7381	82.7	3.8
90	46.86	46.96	2200.5	1824.0	2.319	7511	8127	82.9	3.7
95	46.63	54.1	2522.7	2057.8	2.509	7832	8706	81.6	3.5
100	46.26	65.46	3028.2	2417.5	2.825	8172	9609	79.8	3.2

MAD VAX 5330 EEE 220KV 19x10 AMPX 80A (5-14S)							12S	MAX 84℃	
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.22	2.72	131.2	94.1	0.314	2862	1264	71.7	9.6
35	48.20	3.85	185.6	139.4	0.407	3271	1657	75.1	8.9
40	48.14	5.63	271.0	214.0	0.543	3764	2205	79	8.1
45	48.08	7.68	369.3	298.6	0.679	4200	2740	80.9	7.4
50	48.01	9.88	474.3	390.8	0.813	4590	3291	82.4	6.9
55	47.93	12.52	600.1	493.6	0.956	4930	3871	82.3	6.5
60	47.84	15.59	745.8	616.6	1.104	5333	4440	82.7	6.0
65	47.72	19.62	936.3	777.0	1.297	5721	5172	83	5.5
70	47.57	24.49	1165.0	968.0	1.504	6146	5969	83.1	5.1
75	47.41	29.71	1408.6	1139.2	1.683	6464	6767	80.9	4.8
80	47.25	34.62	1635.8	1340.9	1.872	6840	7526	82	4.6
85	47.05	40.91	1924.8	1572.4	2.096	7164	8289	81.7	4.3
90	46.88	46.36	2173.4	1761.1	2.251	7471	8990	81	4.1
95	46.62	54.57	2544.1	2026.1	2.491	7767	9881	79.6	3.9
100	46.27	65.01	3008.0	2353.2	2.761	8139	10765	78.2	3.6

MAD VAX 5330 EEE 220KV 20x10 AMPX 80A (5-14S)							12S	MAX 93℃	
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.22	2.94	141.8	109.2	0.369	2827	1374	77	9.7
35	48.19	4.19	201.9	159.9	0.473	3229	1784	79.2	8.8
40	48.13	5.93	285.4	234.7	0.609	3680	2324	82.2	8.1
45	48.06	8.27	397.5	329.1	0.763	4119	2925	82.8	7.4
50	47.98	10.85	520.6	435.4	0.925	4495	3570	83.6	6.9
55	47.89	13.76	659.0	552.9	1.088	4853	4146	83.9	6.3
60	47.79	17.18	821.0	686.0	1.252	5232	4793	83.6	5.8
65	47.65	21.72	1035.0	865.5	1.466	5638	5577	83.6	5.4
70	47.51	26.28	1248.6	1031.5	1.633	6032	6308	82.6	5.1
75	47.32	32.32	1529.4	1241.5	1.865	6357	7113	81.2	4.7
80	47.12	38.59	1818.4	1493.4	2.124	6714	8056	82.1	4.4
85	46.92	45.19	2120.3	1717.0	2.342	7001	8935	81	4.2
90	46.69	52.37	2445.2	1955.2	2.551	7319	9661	80	4.0
95	46.44	59.65	2770.1	2184.4	2.741	7610	10326	78.9	3.7
100	46.08	70.8	3262.5	2513.1	3.002	7994	11194	77	3.4

MAD VAX 5330 EEE 220KV 17x8x3 Carbon Fiber AMPX 80A (5-14S)							12S	MAX 86℃	
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.01	2.51	120.5	91.6	0.306	2859	1049	76	8.7
35	47.97	3.98	190.9	150.6	0.422	3408	1540	78.9	8.1
40	47.92	5.35	256.4	203.6	0.507	3834	1912	79.4	7.5
45	47.86	7.15	342.2	277.0	0.621	4259	2365	80.9	6.9
50	47.79	9.83	469.8	383.6	0.772	4745	2959	81.7	6.3
55	47.68	13.2	629.4	517.7	0.946	5226	3635	82.3	5.8
60	47.57	16.88	803.0	660.4	1.114	5661	4257	82.2	5.3
65	47.42	21.35	1012.4	836.7	1.315	6076	5074	82.6	5.0
70	47.29	25.66	1213.5	994.7	1.467	6475	5685	82	4.7
75	47.12	31.31	1475.3	1207.1	1.684	6845	6554	81.8	4.4
80	46.94	37.08	1740.5	1390.7	1.843	7206	7043	79.9	4.0
85	46.74	43.24	2021.0	1627.0	2.060	7542	7784	80.5	3.9
90	46.49	51.14	2377.5	1900.3	2.300	7890	8654	79.9	3.6
95	46.19	60.31	2785.7	2194.1	2.557	8194	9508	78.8	3.4
100	46.00	66.48	3058.1	2367.9	2.653	8523	9849	77.4	3.2

The above data are the theoretical values when the input voltage is 48V, for reference only. In the case of room temperature of 25℃ and no additional cooling device, the current over 66A is non-working zone.21-66A is short-term (about 10-30s), working zone, and below 21A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

# VAX5330

ENERGY EFFICIENT 260KV  
ENTHUSIASTS EXTREME EDITION

5.0~6.0 kgf

RECOMMENDED  
HOVER THRUST

12.8 kgf



MAXIMUM  
THRUST

MAXIMUM THRUST MAY DEPEND ON  
BATTERY LEVEL, PROPELLER TYPE,  
AIR PRESSURE AND OTHER CONDITIONS

OPTIMIZED  
WEIGHT

564g

EFFICIENCY >80%



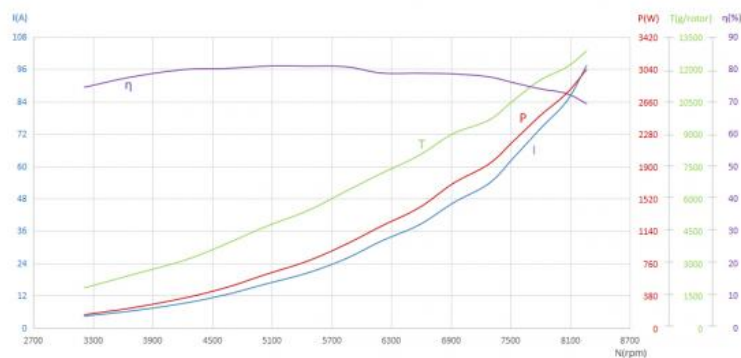
MAD VAX 5330 EEE 260KV 20x10 AMPX 120A (5-14S)

12S HOT

## Analytical Graph of Motor Operation

I – Current, P – Input Power,  $\eta$  – Electrical Efficiency, T – Thrust, N – Rotational Speed

The data above was measured with an input voltage of 48 V, at a temperature of 25°C and sea level. The rotational speed was adjusted by the throttle.



## Specifications

RPM/V	260KV	Nominal Voltage	12S lipo battery
No Load Current	1.6A / 20V	Internal resistance	21mΩ
Motor Weight	564 g	Product Boxed Weight	732g (110 x 110 x 65 mm)
Maximum Current	97 A	Maximum Power	4377W
Maximum thrust	12.8 kg	Maximum Torque	3.5 Nm
Recommended ESC	MAD AMPX 120A (5-14S)	Recommended Propellers	18x12, 19x10, 20x10, 17x8x3
UAV take-off weight	12S-20"/ 22kg-Quadcopter 33kg-Hexacopter 44kg-Octocopter	Single rotor take-off weight	5kg ~ 6kg

MAD VAX 5330 EEE 260KV 18x12 AMPX 120A (5-14S)

12S MAX  
88°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	48.09	3.97	190.9	142.6	0.423	3219	1501	74.7	7.9
35	48.02	5.73	275.2	212.6	0.548	3704	1977	77.3	7.2
40	47.93	8.57	410.8	328.1	0.739	4240	2637	79.9	6.4
45	47.84	11.14	532.9	428.4	0.878	4659	3151	80.4	5.9
50	47.72	14.34	684.3	552.7	1.041	5070	3743	80.8	5.5
55	47.60	17.82	848.2	689.2	1.196	5503	4304	81.3	5.1
60	47.40	23.16	1097.8	892.3	1.445	5897	5147	81.3	4.7
65	47.24	28.19	1331.7	1056.9	1.600	6308	5707	79.4	4.3
70	47.01	35.07	1648.6	1331.3	1.896	6705	6684	80.8	4.1
75	46.78	42.06	1967.6	1579.7	2.127	7092	7524	80.3	3.8
80	46.57	49.12	2287.5	1808.3	2.316	7456	8247	79.1	3.6
85	46.27	57.6	2665.2	2079.6	2.569	7730	9107	78	3.4
90	45.92	66.33	3045.9	2346.0	2.785	8044	9804	77	3.2
95	45.58	76.81	3501.0	2642.7	3.035	8315	10312	75.5	2.9
100	45.26	87.3	3951.2	2899.8	3.230	8573	11010	73.4	2.8



MAD VAX 5330 EEE 260KV 18x12 AMPX 120A (5-14S)								12S	MAX 88℃
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/f/W]
30	48.09	3.97	190.9	142.6	0.423	3219	1501	74.7	7.9
35	48.02	5.73	275.2	212.6	0.548	3704	1977	77.3	7.2
40	47.93	8.57	410.8	328.1	0.739	4240	2637	79.9	6.4
45	47.84	11.14	532.9	428.4	0.878	4659	3151	80.4	5.9
50	47.72	14.34	684.3	552.7	1.041	5070	3743	80.8	5.5
55	47.60	17.82	848.2	689.2	1.196	5503	4304	81.3	5.1
60	47.40	23.16	1097.8	892.3	1.445	5897	5147	81.3	4.7
65	47.24	28.19	1331.7	1056.9	1.600	6308	5707	79.4	4.3
70	47.01	35.07	1648.6	1331.3	1.896	6705	6684	80.8	4.1
75	46.78	42.06	1967.6	1579.7	2.127	7092	7524	80.3	3.8
80	46.57	49.12	2287.5	1808.3	2.316	7456	8247	79.1	3.6
85	46.27	57.6	2665.2	2079.6	2.569	7730	9107	78	3.4
90	45.92	66.33	3045.9	2346.0	2.785	8044	9804	77	3.2
95	45.58	76.81	3501.0	2642.7	3.035	8315	10312	75.5	2.9
100	45.26	87.3	3951.2	2899.8	3.230	8573	11010	73.4	2.8

MAD VAX 5330 EEE 260KV 20x10 AMPX 120A (5-14S)								12S	HOT
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/f/W]
30	48.08	4.4	211.6	157.5	0.468	3214	1865	74.4	8.8
35	48.01	6.38	306.3	237.6	0.614	3696	2473	77.6	8.1
40	47.92	9.35	448.1	358.2	0.807	4239	3172	79.9	7.1
45	47.82	12.48	596.8	478.9	0.984	4648	3922	80.2	6.6
50	47.69	16.34	779.3	630.1	1.194	5039	4704	80.9	6.0
55	47.55	20.41	970.5	784.9	1.374	5455	5432	80.9	5.6
60	47.36	25.8	1221.9	986.0	1.610	5848	6349	80.7	5.2
65	47.13	32.13	1514.3	1192.6	1.839	6193	7151	78.8	4.7
70	46.93	38.21	1793.2	1411.2	2.049	6577	7997	78.7	4.5
75	46.61	46.46	2165.5	1700.6	2.345	6925	9015	78.5	4.2
80	46.27	53.61	2480.5	1926.0	2.526	7281	9635	77.6	3.9
85	45.90	63.02	2892.6	2192.6	2.782	7526	10536	75.8	3.6
90	45.68	73.87	3374.4	2493.6	3.054	7797	11492	73.9	3.4
95	45.26	84.21	3811.3	2759.2	3.267	8065	12096	72.4	3.2
100	44.97	97.34	4377.4	3034.6	3.507	8263	12833	69.3	2.9

MAD VAX 5330 EEE 260KV 17x8x3 Carbon Fiber AMPX 120A (5-14S)								12S	MAX 95℃
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/f/W]
30	48.11	4.16	200.1	147.1	0.414	3393	1573	73.5	7.9
35	48.06	5.96	286.4	219.9	0.539	3896	2039	76.8	7.1
40	48.02	8.22	394.7	308.7	0.672	4386	2553	78.2	6.5
45	47.94	11.42	547.5	439.2	0.854	4911	3276	80.2	6.0
50	47.85	15.81	756.5	612.7	1.068	5478	4111	81	5.4
55	47.73	20.49	978.0	793.5	1.272	5957	4828	81.1	4.9
60	47.60	26.07	1240.9	1004.0	1.496	6409	5742	80.9	4.6
65	47.48	32.15	1526.5	1223.9	1.714	6819	6584	80.2	4.3
70	47.32	38.94	1842.6	1474.0	1.946	7233	7398	80	4.0
75	47.17	45.66	2153.8	1709.9	2.147	7605	8234	79.4	3.8
80	46.94	55.23	2592.5	2025.4	2.414	8012	9096	78.1	3.5
85	46.72	65.28	3049.9	2330.9	2.660	8368	9949	76.4	3.3
90	46.44	76.66	3560.1	2652.7	2.919	8678	10755	74.5	3.0
95	46.15	88.9	4102.7	2962.1	3.152	8974	11526	72.2	2.8
100	45.73	105.97	4846.0	3316.8	3.405	9302	12268	68.4	2.5

The above data are the theoretical values when the input voltage is 48V, for reference only. In the case of room temperature of 25℃ and no additional cooling device, the current over 106A is non-working zone.32-106A is short-term (about 10-30s). working zone, and below 32A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

## Our Services

1. We provide 1 Year Warranty. Buy with confidence.
2. If you are not satisfied when you receive your item, please return it within 14 days for a replacement or money back. Please contact me before you return it.
3. If item is defective in 3 months, We will send you a replacement without extra charger, or offer refund after we receive the defective item.
4. If item is defective after 3 months, you can still send it back to us. We will send you a new one after receiving the defective item. But you have to pay the extra shipping fee.



## FAQ

Q1: Do you support OEM/ODM?

A1: Yes. We can print your logo on the product.

Q2: About samples.

A2: Under normal circumstances, samples will be ready within 7 days, and 10-20 days for OEM/ODM orders. Sample fee and shipping will be charged.

Q3: What is the delivery time?

A3: For regular orders, we can ship within 15 days, for OEM/ODM, we can ship within 25-45 days (depending on the quantity). In the event of delays, we will notify you in advance of the status and resolution.

Q4: What is the minimum order quantity?

A4: There is no MOQ for wholesale (1 piece accepted), including OEM/ODM.

Q5: What are your payment terms?

A5: L/C.TT100%.

Q6: Can you reduce the shipping cost?

A6: When calculating the shipping cost for you, we always choose the cheapest and safest express. Although we have partnerships with shipping companies, we can't keep costs down because it's not us who get paid. If you think it's expensive for you. You can always make your own choice.

Q7: Return policy.

A7: If you want to replace the received item, you must contact us within 7 days after receiving the item. Returned items should be in their original condition and you should pay for additional shipping.



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