



VAX 5320 VTOL Drone Brushless DC Motor

Our Product Introduction

for more products please visit us on uav-vtoldrone.com

Basic Information

- Place of Origin: Guangdong, China
- Brand Name: GS
- Model Number: 5320 235KV 360KV 400KV
- Price: Negotiable
- Delivery Time: 6-8
- Payment Terms: T/T
- Supply Ability: 100



Product Specification

- Motor Model: VAX 5320 EEE V1.0
- Motor Size: D:61.1 X53 Mm
- Propeller Mounting Holes: D:12 M3x4, D:20 M3x4, D:31 M3x4
- Shaft Diameter: IN: 8 Mm
- Bearing: EZ0 688ZZ*2/NMB 1980*1
- Cable Length: EZ0 688ZZ*2/NMB 1980*1
- Rotor Balance: ≤ 5 Mg
- Motor Balance: ≤ 10 Mg
- Motor Mounting Holes: D:30 M4x4, D:44 M4x4
- Disruptive Test: 500 V
- Highlight: Drone Brushless DC Motor,
VAX 5320 Brushless DC Motor



More Images



VAX 5320 VTOL Drone Brushless DC Motor

VAX 5320 with thrust bearing is designed for VTOL, AIRCRAFT, XCLASS to carry of 8-10 kg, supports 12S voltage. VAX 5320 is improved to get higher reliability and stability for long range flight. It also maintains the excellent properties and characteristics of the previous generation and enhances motor safety and service life that fully meets the demanding requirements of various industries.

VAX5320

ENERGY EFFICIENT 235KV
ENTHUSIASTS EXTREME EDITION

3.0~4.0 kgf
RECOMMENDED
HOVER THRUST

9.1kgf
MAXIMUM
THRUST
MAXIMUM THRUST MAY DEPEND ON
BATTERY LEVEL, PROPELLER TYPE,
AIR PRESSURE AND OTHER CONDITIONS

OPTIMIZED
WEIGHT 411g

EFFICIENCY >80%



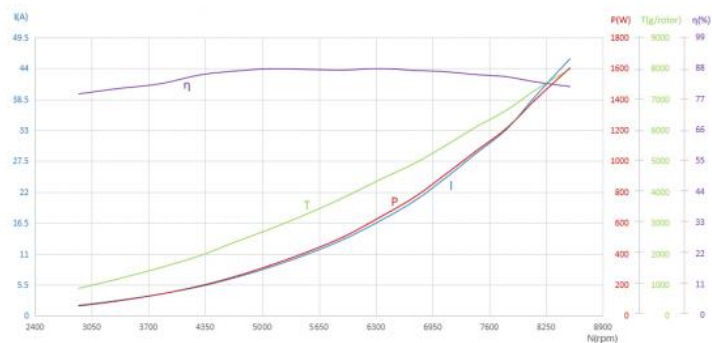
MAD VAX 5320 EEE 235KV FLUXER PRO 18x6.1 MATT AMPX 80A (5-14S)

12S MAX
79°C

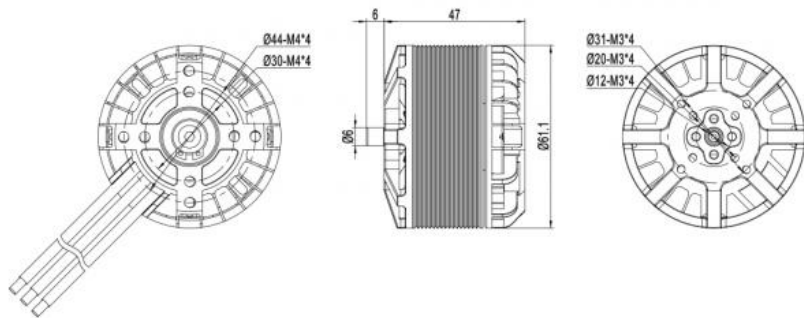
Analytical Graph of Motor Operation

I - Current, P - Input Power, η - 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 5320 EEE V1.0	Number of pole pairs	7
Stator	TAIWAN / Anticorrosive	Varnished wire Degree	150°C
Motor Size	D:61.1 × 53 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:12 M3×4, D:20 M3×4, D:31 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 *2 , 4.0mm Bullet Connector*3 , Heat Shrinkable Tube*3 , M4*12mm *4 Motor Screws, M3*6mm *4 Prop Adapter Fixing Screws, M3*12mm *4 Propeller Screws , M3*20mm *4 Propeller Screws, M8 Nut*1 , Sticker*1		
Specifications			
RPM/V	235 KV	Nominal Voltage	12S lipo battery
No Load Current	2.84A / 20V	Internal resistance	37.5mΩ
Motor Weight	411 g	Product Boxed Weight	590g (110 x 110 x 55 mm)
Maximum Current	55.2 A	Maximum Power	2398W
Maximum thrust	9.1 kg	Maximum Torque	2.142 Nm
Recommended ESC	MAD AMPX 40A (5~14S) 80A (5-14S)	Recommended Propellers	17xBK3, 13x12X3, 18x6.1, 18.1x7.2
UAV take-off weight	12S-18" 11kg--Quadcopter 16.5kg--Hexacopter 22kg--Octocopter	Single rotor take-off weight	3kg ~ 4kg



MAD VAX 5320 EEE 235KV 12x8x3 Carbon Fiber AMPX 40A (5-14S) HV									
12S MAX 44°C									
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	44.62	1.05	46.9	29.3	0.091	3054	365	64.04	8.0
35	44.62	1.47	65.8	44.1	0.120	3507	503	68.22	7.8
40	44.6	2.08	92.6	66.8	0.157	4061	665	73.38	7.3
45	44.59	2.71	121.1	91.3	0.194	4504	813	76.67	6.8
50	44.58	3.47	154.8	120.5	0.233	4934	1050	78.98	6.9
55	44.56	4.48	199.9	159.7	0.283	5388	1259	80.98	6.4
60	44.54	5.67	252.5	206.7	0.335	5886	1528	82.99	6.1
65	44.52	7.13	317.5	263.6	0.394	6392	1801	84.06	5.7
70	44.49	8.82	392.2	329.3	0.458	6870	2086	84.93	5.4
75	44.46	10.49	466.3	393.0	0.513	7319	2355	85.16	5.1
80	44.43	12.46	553.4	471.4	0.582	7731	2673	86.04	4.9
85	44.39	14.57	647.0	550.2	0.644	8164	2967	85.82	4.6
90	44.34	17.13	759.5	646.9	0.719	8591	3310	85.87	4.4
95	44.29	19.68	871.5	741.6	0.786	9012	3619	85.68	4.2
100	44.22	23.58	1042.8	884.8	0.884	9555	4060	85.27	3.9
MAD VAX 5320 EEE 235KV 13x12x3 Carbon Fiber AMPX 40A (5-14S) HV									
12S MAX 56°C									
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	44.61	1.58	70.6	50.1	0.161	2961	471	72.31	6.8
35	44.6	2.21	98.4	73.2	0.206	3395	658	75.65	6.8
40	44.58	3.26	145.5	114.5	0.277	3945	951	79.97	6.6
45	44.57	4.36	194.3	157.4	0.342	4396	1136	82.19	5.9
50	44.54	5.59	248.8	204.9	0.407	4801	1427	83.58	5.8
55	44.52	7.04	313.4	261.5	0.478	5226	1701	84.48	5.5
60	44.48	8.99	399.9	338.5	0.569	5679	2032	85.64	5.1
65	44.44	11.18	496.8	421.2	0.655	6137	2342	85.67	4.8
70	44.4	13.82	613.8	521.7	0.758	6576	2712	85.79	4.5
75	44.35	16.5	731.9	621.8	0.850	6990	3032	85.64	4.2
80	44.29	19.55	865.7	734.2	0.951	7369	3399	85.36	4.0
85	44.25	22.71	1004.8	845.6	1.042	7749	3711	84.62	3.7
90	44.17	26.62	1175.6	983.0	1.155	8127	4105	83.92	3.5
95	44.09	30.61	1349.8	1116.9	1.257	8486	4452	82.9	3.3
100	43.99	37.08	1631.2	1340.8	1.431	8947	5000	83.34	3.1

VAX5320



ENERGY EFFICIENT 360KV ENTHUSIASTS EXTREME EDITION

3.0~4.0 kgf
RECOMMENDED
HOVER THRUST

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

OPTIMIZED
WEIGHT
414g

EFFICIENCY >79%



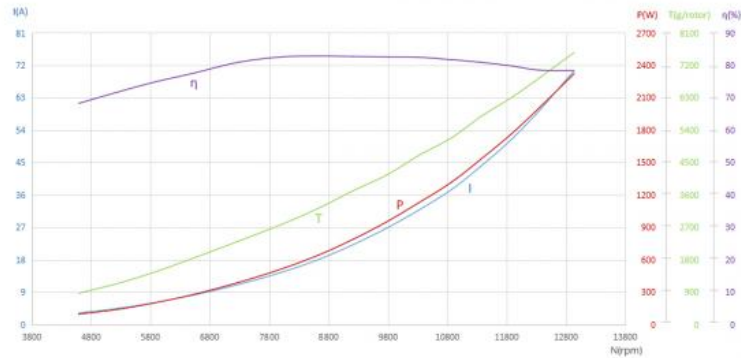
MAD VAX 5320 EEE 360KV 12x8x3 Carbon Fiber AMPX 80A (5-14S)

12S MAX
58°C

Analytical Graph of Motor Operation

I - Current, P - Input Power, η - 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	360 KV	Nominal Voltage	12S lipo battery
No Load Current	2.1A / 20V	Internal resistance	28.5mΩ
Motor Weight	414 g	Product Boxed Weight	572g (110 x 110 x 55 mm)
Maximum Current	100.3 A	Maximum Power	4214W
Maximum thrust	8.2 kg	Maximum Torque	2.43 Nm
Recommended ESC	MAD AMPX 80A (5-14S) AMPX 120A (5-14S)	Recommended Propellers	12x8X3, 13x12X3
UAV take-off weight	12S-12V 11kg--Quadcopter 17kg--Hexacopter 23kg--Octocopter	Single rotor take-off weight	3kg ~ 4kg

MAD VAX 5320 EEE 360KV 12x8x3 Carbon Fiber AMPX 80A (5-14S)

12S MAX
58°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	44.13	3.16	139.6	94.7	0.197	4591	864	68.25	6.2
35	44.11	4.44	195.7	139.8	0.254	5247	1138	71.73	5.8
40	44.08	6	264.6	197.1	0.322	5844	1441	74.71	5.5
45	44.04	8.18	360.1	279.0	0.408	6535	1850	77.61	5.1
50	43.99	11.11	488.8	389.2	0.510	7284	2315	80.93	4.8
55	43.94	14.41	632.9	511.5	0.611	7995	2769	82.56	4.5
60	43.88	18.08	793.4	643.9	0.712	8638	3235	82.83	4.2
65	43.81	22.21	973.0	790.0	0.818	9220	3720	82.71	3.9
70	43.73	26.69	1166.9	948.0	0.926	9772	4144	82.59	3.6
75	43.63	31.76	1385.8	1126.7	1.043	10319	4693	82.48	3.4
80	43.53	37.44	1629.8	1316.3	1.157	10868	5180	81.73	3.2
85	43.42	43.89	1905.4	1527.6	1.284	11361	5770	80.92	3.1
90	43.29	51.28	2219.8	1760.6	1.416	11873	6295	79.82	2.9
95	43.13	59.28	2556.4	2002.3	1.549	12343	6838	78.52	2.7
100	42.92	70.54	3027.4	2323.4	1.715	12939	7559	78.38	2.6

MAD VAX 5320 EEE 360KV 13x12x3 Carbon Fiber AMPX 120A (5-14S)

12S MAX
67°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	44.47	4.68	207.9	153.7	0.334	4391	1154	74.91	5.6
35	44.44	6.65	295.5	224.3	0.426	5027	1491	76.71	5.1
40	44.39	9.16	406.8	313.4	0.533	5611	1932	77.75	4.8
45	44.34	12.35	547.6	430.2	0.661	6216	2388	79.18	4.4
50	44.27	16.42	726.7	574.3	0.799	6860	2887	79.52	4.0
55	44.18	21.58	953.2	758.9	0.966	7500	3479	79.94	3.7
60	44.06	27.28	1202.2	954.7	1.128	8082	4025	79.52	3.4
65	43.96	33.54	1474.5	1155.2	1.281	8609	4544	80.06	3.2
70	43.84	40.53	1776.8	1371.0	1.441	9086	5011	78.64	2.9
75	43.74	48.46	2116.2	1604.3	1.609	9521	5586	76.96	2.6
80	43.63	58.34	2537.3	1882.3	1.812	9922	6118	75.01	2.4
85	43.52	69.22	2998.2	2141.4	1.986	10295	6650	72.91	2.2
90	43.41	80.13	3376.4	2415.2	2.125	10636	7183	70.3	2.0
95	43.31	90.44	3802.1	2648.3	2.268	11074	7715	68.74	1.8
100	43.20	100.28	4214.3	2876.4	2.426	11536	8247	67.1	1.5

The above data are the theoretical values when the input voltage is 48V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 100A is non-working zone. 36-100A is short-term (about 10-30s), working zone, and below 36A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

VAX5320

ENERGY EFFICIENT 400KV
ENTHUSIASTS EXTREME EDITION

4.0~5.0 kgf
RECOMMENDED
HOVER THRUST
OPTIMIZED
WEIGHT 428g

8.8 kgf
MAXIMUM
THRUST
MAXIMUM THRUST MAY DEPEND ON
BATTERY LEVEL, PROPELLER TYPE,
AIR PRESSURE AND OTHER CONDITIONS
EFFICIENCY >76%

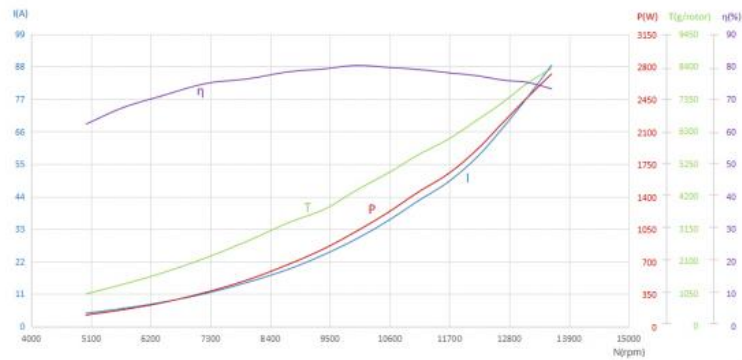


MAD VAX 5320 EEE 400KV 12x8x3 Carbon Fiber AMPX 120A (5-14S)

12S MAX
65°C

Analytical Graph of Motor Operation

I - Current, P - Input Power, η - 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	400 KV	Nominal Voltage	12S lipo battery
No Load Current	1.74A / 15V	Internal resistance	28.5mΩ
Motor Weight	428 g	Product Boxed Weight	607g (110 x 110 x 55 mm)
Maximum Current	116.53 A	Maximum Power	4716W
Maximum thrust	8.8 kg	Maximum Torque	2.83 Nm
Recommended ESC	MAD AMPX 120A (5-14S)	Recommended Propellers	12x8X3, 13x12X3
UAV take-off weight	12S-12V 14kg-Quadcopter 20kg-Hexacopter 27kg-Octocopter	Single rotor take-off weight	4kg ~ 5kg

MAD VAX 5320 EEE 400KV 12x8x3 Carbon Fiber AMPX 120A (5-14S)

12S MAX
65°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	44.32	4.5	199.6	123.2	0.235	5009	1054	62.31	5.3
35	44.29	6.14	271.8	181.9	0.305	5702	1370	67.46	5.1
40	44.26	8.16	361.1	254.6	0.380	6395	1721	70.95	4.8
45	44.20	11.18	494.0	367.6	0.487	7212	2219	74.79	4.5
50	44.14	15.03	663.5	504.4	0.603	7995	2772	76.27	4.2
55	44.05	19.5	858.8	672.9	0.734	8750	3366	78.43	3.9
60	43.99	24.34	1070.6	837.9	0.852	9390	3784	79.31	3.6
65	43.87	29.69	1302.3	1026.3	0.981	9988	4406	80.37	3.5
70	43.76	35.86	1569.5	1230.5	1.111	10572	4965	79.75	3.2
75	43.66	42.47	1853.9	1445.7	1.242	11118	5543	79.14	3.0
80	43.52	48.94	2130.2	1644.7	1.345	11674	6052	78.12	2.9
85	43.37	57.36	2487.5	1904.8	1.490	12204	6666	77.2	2.7
90	43.19	67.28	2905.6	2195.8	1.653	12681	7245	75.86	2.5
95	42.98	77.29	3322.1	2459.8	1.790	13121	7848	75.17	2.4
100	42.74	88.51	3783.5	2722.2	1.914	13579	8343	73.19	2.2

MAD VAX 5320 EEE 400KV 13x12x3 Carbon Fiber AMPX 120A (5-14S)

12S MAX
73°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	44.29	6.11	270.4	201.7	0.399	4829	1323	75.18	4.9
35	44.24	8.95	396.1	302.4	0.524	5514	1889	76.79	4.8
40	44.18	12.22	540.1	419.5	0.653	6138	2347	77.99	4.4
45	44.10	16.73	737.9	581.6	0.814	6826	2898	78.99	3.9

50	44.00	22.67	997.6	781.0	0.993	7512	3556	79.04	3.6
55	43.88	29.22	1282.3	994.9	1.168	8136	4180	79.15	3.3
60	43.74	36.94	1615.8	1240.0	1.359	8714	4819	78.03	3.0
65	43.60	44.18	1926.3	1454.4	1.499	9264	5241	76.53	2.8
70	43.45	53.46	2323.0	1701.9	1.670	9731	5697	74	2.5
75	43.30	64.58	2792.3	1994.7	1.882	10120	6227	71.79	2.2
80	43.16	75.48	3145.9	2215.6	2.060	10614	6724	69.36	2.0
85	43.01	84.64	3538.5	2461.7	2.250	11186	7221	66.99	1.7
90	42.87	95.65	3931.1	2707.9	2.440	11742	7798	64.62	1.4
95	42.72	106.09	4323.7	2954.0	2.640	12237	8316	62.25	1.2
100	42.58	116.53	4716.3	3200.2	2.830	12745	8763	59.88	1.0

The above data are the theoretical values when the input voltage is 48V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 117A is non-working zone, 44-117A is short-term (about 10-30s), working zone, and below 44A 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.



Guangzhou Gesai Intelligent Electronic Technology Co., Ltd.



Kellyyangjing2021@outlook.com



uav-vtoldrone.com

