



## 5010 IPE -V3 Brushless DC Motor 200KV 240KV 310KV 370KV

### Our Product Introduction

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#### Basic Information

- Place of Origin: Guangdong, China
- Brand Name: GS
- Model Number: 5010 IPE -V3 200KV 240KV 310KV 370KV
- Price: Negotiable



#### Product Specification

- Motor Model: MAD 5010 IPE V3.0
- Motor Size: MAD 5010 IPE V3.0
- Propeller Mounting Holes: D:12 M3x4, D:15 M3x4
- Bearing: EZ0 696ZZ\*2
- Number Of Pole Pairs: 14
- Cable Length: 150 Mm 16# Awg(Black) Silicone
- Rotor Balance:  $\leq 5$  Mg
- Motor Balance:  $\leq 10$  Mg
- Motor Mounting Holes: D:25 M3x4
- Disruptive Test: 500 V
- Highlight: Surveying Underwater Drone, Surveying fishing drone, Fd1 Fishing Drone



#### More Images



## Product Description

## 5010 IPE -V3 Brushless DC Motor 200KV 240KV 310KV 370KV

**200KV:** Heavy-lift drones, aerial photography drones with heavy cameras.

**240KV:** Versatile drones used for both lifting and speed.

**310KV:** Fast drones with moderate payloads.

**370KV:** Racing drones, high-speed flight where payload is minimal.

**5010**  
ENERGY EFFICIENT 200KV  
INDUSTRY PROFESSIONAL EDITION

1.5~2.0 kgf

RECOMMENDED  
HOVER THRUST

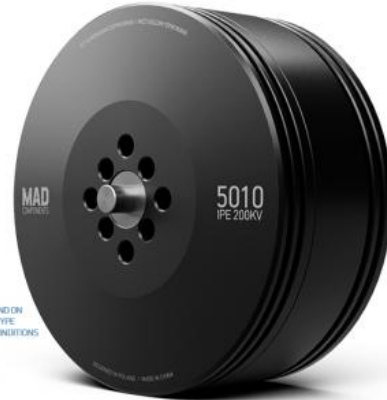
OPTIMIZED  
WEIGHT 181g

5.2 kgf

MAXIMUM  
THRUST

EFFICIENCY >82%

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



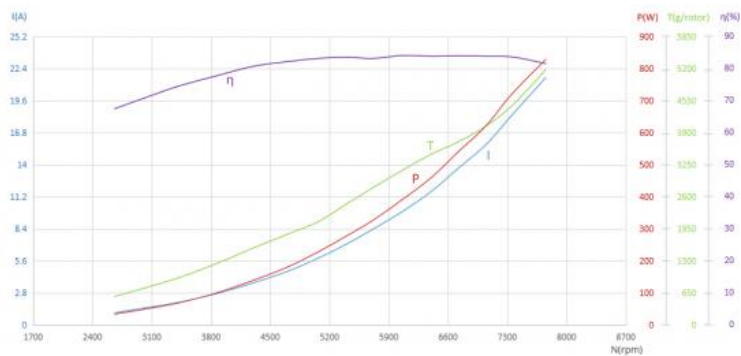
MAD 5010 IPE 200KV FLUXER PRO 17x5.8 MATT AMPX 40A (5-14S) HV

12S MAX  
109°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.

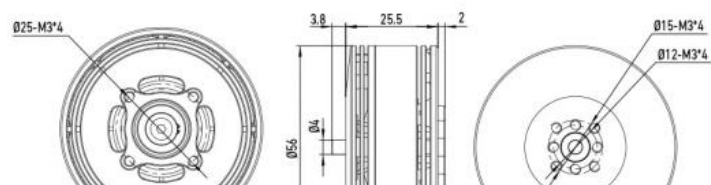


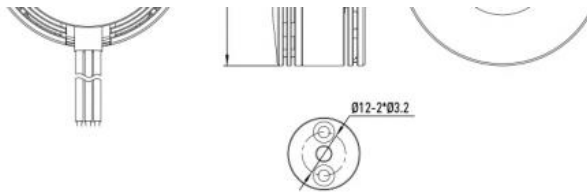
## Motor Data

Motor Model	MAD 5010 IPE V3.0	Number of pole pairs	14
Stator	TAIWAN / Anticorrosive	Varnished wire Degree	180°C
Motor Size	D:56 × 31.3 mm	Magnet Degree	150°C
Degree of Protection	IP45	Cable Length	150 mm 16# Awg(Black) silicone
Centrifugal Heat Dissipation	YES	Rotor Balance	≤5 mg
Propeller Mounting Holes	D:12 M3×4, D:15 M3×4	Motor Balance	≤10 mg
Shaft Diameter	IN: 6 mm	Motor Mounting Holes	D:25 M3×4
Bearing	EZO 696ZZ*2	Disruptive test	500 V
Additional Accessories	Propeller Plate *1, Ø4-6 Adapter Ring *1, 3.5mm Bullet Connector*3, Heat Shrinkable Tube*3, M3*8mm *4 Motor Screws, M3*10mm *2 Propeller Screws, Sticker*2		

## Specifications

RPM/V	200 KV	Nominal Voltage	6-12S lipo battery
No Load Current	0.69A / 20V	Internal resistance	106mΩ
Motor Weight	181 g	Product Boxed Weight	344g (110 x 110 x 50 mm)
Maximum Current	22.3 A	Maximum Power	1029 W
Maximum thrust	5.2 kg	Maximum Torque	1.02 Nm
Recommended ESC	AMPX PRO 40A(2-6S) AMPX 40A(5-14S) HV	Recommended Propellers	16x5.4, 17x5.8, 22x6.6, 22x7.0, 24x7.2
UAV take-off weight	12S-17V 7kg-Quadcopter 10.5kg-Hexacopter 14kg-Octocopter	Single rotor take-off weight	1.5kg ~ 2kg





MAD 5010 IPE 200KV FLUXER PRO 16x5.4 MATT AMPX 40A (5-14S) HV

12S

MAX  
78°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	48.18	0.89	42.5	27.7	0.098	2703	452	65.30	10.6
35	48.16	1.23	58.8	40.6	0.126	3090	596	69.20	10.1
40	48.16	1.69	80.7	59.1	0.161	3514	784	73.30	9.7
45	48.14	2.3	110.4	85.5	0.206	3960	1025	77.80	9.3
50	48.13	3.09	148.6	118.9	0.258	4411	1296	80.50	8.8
55	48.11	3.85	184.9	151.6	0.301	4804	1531	82.20	8.3
60	48.1	4.77	228.6	190.5	0.351	5181	1791	83.40	7.8
65	48.08	5.76	276.3	232.1	0.401	5530	2053	84.10	7.4
70	48.06	6.82	327.2	277.6	0.452	5860	2321	84.90	7.1
75	48.03	8.1	388.8	332.0	0.510	6223	2615	85.40	6.7
80	48	9.6	460.5	396.0	0.575	6580	2946	86.20	6.4
85	47.98	11.23	538.2	462.9	0.637	6935	3273	87.80	6.2
90	47.95	13.07	626.2	539.8	0.708	7280	3621	87.90	5.9
95	47.91	15.06	721.1	621.1	0.779	7616	3971	87.80	5.6
100	47.87	17.88	855.2	731.7	0.869	8044	4403	87.10	5.2

MAD 5010 IPE 200KV FLUXER PRO 17x5.8 MATT AMPX 40A (5-14S) HV

12S

MAX  
109°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	47.99	1.07	51.0	34.0	0.122	2661	578	67.50	11.5
35	47.98	1.49	70.9	49.5	0.157	3018	752	70.90	10.8
40	47.97	1.97	94.0	68.7	0.192	3410	954	74.50	10.3
45	47.95	2.75	131.4	100.3	0.248	3867	1248	77.80	9.7
50	47.93	3.71	177.2	140.5	0.311	4310	1570	80.80	9.0
55	47.91	4.68	223.8	180.5	0.367	4700	1840	82.20	8.4
60	47.89	5.83	278.8	227.7	0.430	5062	2093	83.20	7.7
65	47.86	7.09	339.1	278.5	0.492	5404	2460	83.60	7.4
70	47.84	8.34	398.1	325.7	0.545	5705	2778	83.20	7.1
75	47.81	9.89	472.1	390.4	0.616	6054	3133	84.10	6.8
80	47.79	11.64	555.5	458.7	0.685	6395	3460	83.90	6.3
85	47.75	13.69	653.2	540.1	0.768	6719	3716	84.00	5.8
90	47.71	15.75	751.0	621.1	0.842	7045	4034	83.90	5.5
95	47.65	18.3	871.6	719.6	0.935	7349	4441	83.70	5.2
100	47.61	21.62	1029.0	829.3	1.021	7754	5181	81.60	5.1

MAD 5010 IPE 200KV FLUXER PRO 22x6.6 MATT AMPX 40A PRO (2-6S)

6S

MAX  
55°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	23.93	0.68	15.8	10.9	0.082	1279	308	71.90	20.2
35	23.92	0.99	23.1	16.6	0.107	1478	419	73.30	18.5
40	23.92	1.42	33.7	25.5	0.145	1690	575	79.70	17.9
45	23.91	1.96	46.6	35.8	0.180	1903	735	80.30	16.5
50	23.9	2.52	59.7	47.0	0.216	2078	897	81.70	15.6
55	23.89	3.12	74.1	58.5	0.250	2239	1048	82.30	14.8
60	23.87	3.76	89.2	71.1	0.283	2398	1191	82.60	13.8
65	23.86	4.77	113.4	92.3	0.337	2614	1439	84.40	13.2
70	23.83	5.82	138.1	113.7	0.389	2792	1653	85.00	12.4
75	23.82	6.95	165.0	135.8	0.435	2985	1870	85.30	11.8
80	23.79	8.08	191.6	158.0	0.479	3152	2072	85.30	11.2
85	23.78	9.45	224.0	184.6	0.531	3323	2307	85.10	10.6
90	23.75	10.88	257.7	212.1	0.581	3484	2524	84.90	10.1
95	23.72	12.41	294.0	240.9	0.632	3640	2741	84.50	9.6
100	23.68	14.82	350.5	286.0	0.711	3840	3072	84.00	9.0

MAD 5010 IPE 200KV HAVOC 22x7.0 folding propeller AMPX 40A PRO (2-6S)

6S

MAX  
66°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	23.94	0.98	22.8	16.8	0.133	1213	418	77.00	19.1
35	23.93	1.47	34.9	26.1	0.179	1398	590	79.30	17.9
40	23.92	2.07	48.8	38.1	0.229	1590	785	81.30	16.7
45	23.9	2.91	69.0	54.8	0.288	1817	1015	82.40	15.3
50	23.88	3.75	89.0	71.2	0.343	1987	1224	83.00	14.3
55	23.87	4.57	108.4	86.1	0.387	2123	1381	82.50	13.2
60	23.84	5.66	134.3	107.0	0.449	2275	1619	82.60	12.5
65	23.82	7.01	166.7	132.6	0.517	2449	1867	82.50	11.6
70	23.8	8.47	201.2	159.7	0.583	2617	2128	82.20	11.0
75	23.77	10.1	239.6	190.4	0.659	2761	2365	82.10	10.2
80	23.74	11.92	282.5	223.6	0.734	2908	2597	81.70	9.5
85	23.71	13.88	328.7	257.2	0.807	3045	2846	80.60	8.9
90	23.67	15.94	376.8	292.0	0.879	3171	3105	79.70	8.5

95	23.63	18.16	428.6	327.9	0.949	3299	3357	78.50	8.0
100	23.57	21.55	507.5	381.5	1.053	3461	3717	77.00	7.5

MAD 5010 IPE 200KV FLUXER PRO 24x7.2 MATT AMPX 40A PRO (2-6S)

6S

MAX  
74°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	23.93	0.97	22.8	17.1	0.135	1210	467	78.20	21.3
35	23.92	1.47	34.6	26.2	0.180	1395	636	78.70	19.1
40	23.9	2.1	49.5	38.4	0.232	1583	834	80.40	17.5
45	23.89	3	71.0	55.9	0.296	1807	1074	81.50	15.7
50	23.87	3.9	92.8	73.0	0.353	1977	1284	82.00	14.4
55	23.85	4.79	113.8	89.5	0.403	2122	1470	81.60	13.4
60	23.83	5.79	137.6	108.3	0.457	2264	1678	81.60	12.7
65	23.81	7.17	170.2	133.4	0.524	2432	1948	81.10	11.8
70	23.78	8.67	205.6	161.2	0.594	2591	2221	81.00	11.2
75	23.76	10.42	247.1	192.6	0.671	2741	2505	80.50	10.5
80	23.72	12.3	291.3	225.4	0.747	2883	2803	79.80	9.9
85	23.68	14.32	338.8	260.4	0.824	3020	3080	79.20	9.4
90	23.65	16.33	385.7	294.0	0.892	3149	3308	78.30	8.8
95	23.61	18.68	440.6	332.9	0.974	3264	3601	77.50	8.4
100	23.54	22.31	524.9	389.0	1.086	3422	3983	75.90	7.8

The above data are the theoretical values when the input voltage is 48 V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 22A is non-working zone, 7-22A is short-term (about 10-30s), working zone, and below 7A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

# 5010

ENERGY EFFICIENT 240KV  
INDUSTRY PROFESSIONAL EDITION

1.5~2.0 kgf

RECOMMENDED  
HOVER THRUST

OPTIMIZED  
WEIGHT 181g

4.1 kgf



MAXIMUM  
THRUST

EFFICIENCY >79%

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



MAD 5010 IPE 240KV FLUXER PRO 22x6.6 MATT AMPX 40A PRO (2-6S)

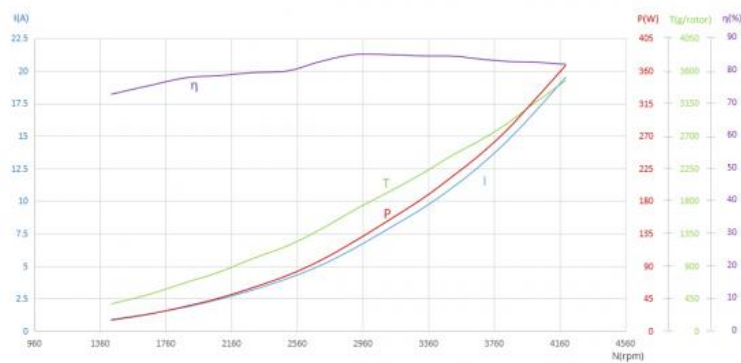
6S

MAX  
77°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.



Specifications

RPM/V	240 KV	Nominal Voltage	6S lipo battery
No Load Current	0.76A / 20V	Internal resistance	94.6mΩ
Motor Weight	181 g	Product Boxed Weight	341g (110 x 110 x 50 mm)
Maximum Current	28.9 A	Maximum Power	680.8W
Maximum thrust	4.1 kg	Maximum Torque	1.23 Nm
Recommended ESC	MAD AMPX PRO 40A (2-6S)	Recommended Propellers	20x6.0, 21x6.3, 22x6.6, 22x7.0
UAV take-off weight	6S-22" 5kg-Quadcopter 7.5kg-Hexacopter 10kg-Octocopter	Single rotor take-off weight	1.5kg ~ 2kg

MAD 5010 IPE 240KV FLUXER PRO 20x6.0 MATT AMPX 40A PRO (2-6S)

6S

MAX  
60°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
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30	23.94	0.71	16.4	10.8	0.069	1498	267	68.30	16.9
35	23.94	1.03	24.3	16.7	0.092	1749	373	71.90	16.0
40	23.94	1.44	34.0	24.8	0.120	1982	495	76.40	15.2
45	23.93	1.85	43.6	33.2	0.146	2184	603	78.70	14.3
50	23.92	2.41	57.1	44.6	0.178	2393	752	81.30	13.7
55	23.9	3.04	72.2	57.2	0.209	2620	905	82.50	13.1
60	23.89	3.8	90.3	72.5	0.244	2844	1064	83.50	12.2
65	23.88	4.68	111.2	89.8	0.280	3067	1235	83.90	11.5
70	23.86	5.75	136.6	110.6	0.321	3292	1427	83.90	10.8
75	23.84	6.92	164.5	134.4	0.366	3504	1644	84.70	10.4
80	23.82	8.06	191.3	156.3	0.403	3707	1823	84.50	9.9
85	23.8	9.35	221.9	181.7	0.446	3894	2035	84.60	9.5
90	23.77	10.72	254.5	209.4	0.492	4062	2251	85.10	9.1
95	23.75	12.11	287.3	235.3	0.529	4252	2417	84.60	8.7
100	23.7	14.5	343.4	281.4	0.598	4496	2721	84.40	8.2

MAD 5010 IPE 240KV    FLUXER PRO 21x6.3 MATT    AMPX 40A PRO (2-6S)

6S

MAX  
71°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/f/W]
30	23.93	0.81	18.7	13.2	0.086	1461	329	73.50	18.3
35	23.92	1.21	28.3	20.4	0.114	1710	457	75.10	16.8
40	23.92	1.71	40.6	30.4	0.150	1944	613	78.10	15.7
45	23.91	2.23	52.8	40.6	0.182	2134	756	80.10	14.9
50	23.9	2.81	67.0	52.0	0.214	2320	901	81.10	14.1
55	23.89	3.6	85.7	67.8	0.257	2520	1093	82.20	13.3
60	23.87	4.55	108.1	86.6	0.302	2739	1293	83.10	12.4
65	23.85	5.67	134.8	108.5	0.349	2972	1487	83.60	11.5
70	23.83	7.03	167.2	134.3	0.399	3214	1726	83.20	10.7
75	23.8	8.35	198.1	160.2	0.448	3413	1957	83.60	10.2
80	23.78	9.87	234.2	189.0	0.501	3600	2204	83.50	9.7
85	23.75	11.39	269.8	217.9	0.552	3769	2430	83.40	9.3
90	23.73	13.07	309.7	249.5	0.605	3941	2651	83.10	8.8
95	23.69	14.77	349.4	280.7	0.655	4093	2859	82.70	8.4
100	23.65	17.6	415.6	333.2	0.734	4333	3155	82.40	7.8

MAD 5010 IPE 240KV    FLUXER PRO 22x6.6 MATT    AMPX 40A PRO (2-6S)

6S

MAX  
77°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/f/W]
30	24.07	0.89	20.9	15.2	0.102	1429	376	72.80	18.0
35	24.06	1.32	31.0	23.3	0.135	1655	506	75.40	16.3
40	24.05	1.86	44.3	34.5	0.175	1888	676	77.90	15.3
45	24.04	2.44	57.8	45.3	0.208	2082	813	78.50	14.1
50	24.03	3.11	74.4	59.0	0.248	2276	991	79.40	13.3
55	24.01	4.05	96.6	77.3	0.295	2504	1183	80.00	12.2
60	23.99	5.02	119.8	97.3	0.344	2698	1401	82.80	11.9
65	23.97	6.37	152.3	124.2	0.408	2910	1676	85.00	11.5
70	23.94	8.11	193.7	157.7	0.478	3149	1962	84.90	10.6
75	23.91	9.51	227.2	184.8	0.530	3334	2195	84.60	10.1
80	23.88	11.13	265.4	215.8	0.586	3517	2446	84.50	9.6
85	23.86	12.74	303.4	244.7	0.636	3677	2642	83.60	9.0
90	23.83	14.62	348.1	278.6	0.693	3840	2873	82.90	8.6
95	23.79	16.62	394.9	315.9	0.756	3992	3130	82.70	8.2
100	23.74	19.51	462.9	367.5	0.837	4196	3466	82.00	7.7

MAD 5010 IPE 240KV    HAVOC 22x7.0 folding propeller    AMPX 40A PRO (2-6S)

6S

MAX  
84°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/f/W]
30	24.05	1.25	29.8	21.7	0.156	1331	519	72.80	17.4
35	24.04	1.95	46.4	34.5	0.213	1550	712	74.40	15.3
40	24.02	2.81	67.2	50.2	0.274	1747	927	74.90	13.8
45	24.01	3.65	87.1	65.4	0.326	1917	1118	75.10	12.8
50	23.99	4.71	112.5	85.1	0.389	2089	1332	78.70	12.3
55	23.97	6.01	143.6	108.6	0.458	2265	1577	78.80	11.4
60	23.93	7.87	188.1	143.2	0.553	2471	1893	79.20	10.5
65	23.9	9.67	230.4	175.3	0.632	2650	2170	79.00	9.8
70	23.86	11.78	280.6	213.4	0.720	2832	2468	78.90	9.1
75	23.83	13.92	331.3	248.9	0.796	2988	2643	77.80	8.3
80	23.79	16.51	392.3	290.8	0.883	3144	2948	76.60	7.8
85	23.74	18.86	447.2	329.7	0.962	3273	3221	76.10	7.4
90	23.69	21.59	511.0	370.7	1.038	3411	3477	74.70	7.0
95	23.63	24.52	579.1	413.7	1.119	3530	3749	73.40	6.7
100	23.56	28.92	680.8	473.3	1.229	3677	4119	71.20	6.2

The above data are the theoretical values when the input voltage is 24 V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 29A is non-working zone, 10-29A is short-term (about 10-30s) working zone, and below 10A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

5010



## ENERGY EFFICIENT 310KV INDUSTRY PROFESSIONAL EDITION

2.0~2.5 kgf

RECOMMENDED  
HOVER THRUST

5.2 kgf



MAXIMUM  
THRUST

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

OPTIMIZED  
WEIGHT 177g

EFFICIENCY >78%



MAD 5010 IPE 310KV FLUXER PRO 20x6.0 MATT AMPX 40A PRO (2-6S)

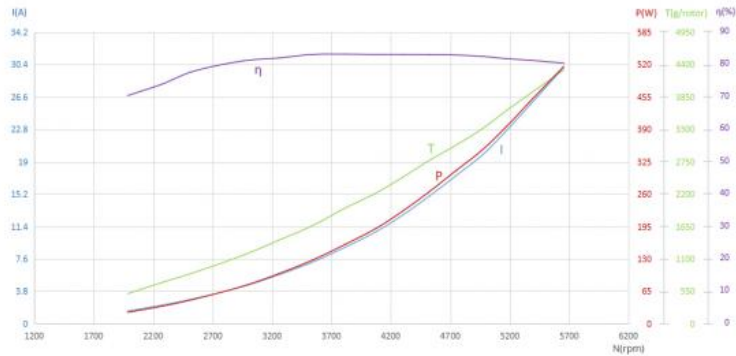
6S

MAX  
86°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 24 V, at a temperature of 25°C and sea level. The rotational speed was adjusted by the throttle.



### Specifications

RPM/V	310 KV	Nominal Voltage	6S lipo battery
No Load Current	1.25A / 20V	Internal resistance	51mΩ
Motor Weight	177 g	Product Boxed Weight	340g (110 x 110 x 50 mm)
Maximum Current	46.8 A	Maximum Power	991W
Maximum thrust	5.2 kg	Maximum Torque	1.4 Nm
Recommended ESC	MAD AMPX PRO 40A (2-6S)	Recommended Propellers	20x6.0, 21x6.3, 22x6.6, 22x7.0
UAV take-off weight	6S-20"/ 7kg--Quadcopter 10.5kg--Hexacopter 14kg--Octocopter	Single rotor take-off weight	2kg ~ 2.5kg

MAD 5010 IPE 310KV FLUXER PRO 20x6.0 MATT AMPX 40A PRO (2-6S)

6S

MAX  
86°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/W]
30	24.01	1.48	35.0	24.5	0.118	1986	508	70.40	14.6
35	24	2.17	51.6	37.7	0.159	2273	697	73.90	13.6
40	23.99	2.92	69.9	52.5	0.198	2539	865	77.90	12.8
45	23.96	4.36	104.0	81.1	0.262	2957	1161	81.10	11.6
50	23.94	5.72	136.3	107.7	0.316	3254	1413	82.00	10.8
55	23.91	7.26	173.2	138.2	0.372	3549	1672	83.10	10.0
60	23.88	8.96	213.3	171.1	0.429	3815	1961	83.20	9.5
65	23.85	10.79	256.7	205.8	0.482	4076	2218	83.10	9.0
70	23.81	12.71	302.1	242.7	0.540	4297	2482	83.10	8.5
75	23.78	14.98	355.5	285.5	0.603	4526	2774	83.00	8.1
80	23.73	17.34	411.2	330.4	0.665	4747	3028	82.90	7.6
85	23.68	19.77	467.7	375.2	0.721	4969	3308	82.50	7.3
90	23.64	22.67	535.4	426.4	0.787	5175	3621	81.80	7.0
95	23.58	25.75	606.6	481.4	0.855	5377	3913	81.30	6.6
100	23.5	30.07	706.0	555.9	0.939	5656	4308	80.40	6.2

MAD 5010 IPE 310KV FLUXER PRO 21x6.3 MATT AMPX 40A PRO (2-6S)

6S

MAX  
99°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/W]
30	24.03	1.69	40.0	29.9	0.149	1922	549	74.70	13.7
35	24.02	2.54	60.7	46.5	0.200	2223	766	77.00	12.7
40	24.01	3.42	81.7	64.0	0.247	2474	961	78.30	11.8
45	23.98	5.1	122.1	98.5	0.328	2863	1306	84.20	11.2
50	23.95	6.83	163.0	132.2	0.397	3177	1644	84.40	10.5
55	23.91	8.72	207.9	170.1	0.471	3448	1975	85.10	9.9
60	23.88	10.66	254.1	207.6	0.537	3694	2273	84.90	9.3
65	23.84	12.92	307.6	250.4	0.607	3940	2609	84.40	8.8
70	23.8	15.22	361.8	294.3	0.676	4159	2870	84.10	8.2
75	23.75	17.81	422.5	342.2	0.748	4368	3174	83.60	7.8
80	23.7	20.65	488.9	394.2	0.824	4569	3532	83.00	7.4
85	23.65	23.63	558.3	445.8	0.894	4760	3844	82.10	7.1
90	23.59	26.9	634.2	502.1	0.966	4962	4157	81.20	6.7
95	23.52	30.37	713.7	560.6	1.040	5146	4461	80.30	6.4
100	23.44	35.48	831.1	643.1	1.139	5393	4866	78.80	6.0

MAD 5010 IPE 310KV HAVOC 22x7.0 folding propeller AMPX 40A PRO (2-6S)

6S

MAX  
108°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	21.97	2.17	47.3	35.9	0.208	1656	710	80.00	15.8
35	21.95	3.45	75.3	57.9	0.286	1935	1012	80.30	14.0
40	21.92	4.69	102.3	78.1	0.350	2136	1262	79.60	12.9
45	21.9	6.15	134.2	102.8	0.423	2324	1522	79.90	11.8
50	21.86	8.32	181.4	139.2	0.510	2608	1869	79.80	10.7
55	21.8	11.2	243.6	187.3	0.619	2892	2270	79.90	9.7
60	21.75	14.28	310.1	235.0	0.723	3104	2648	78.50	8.8
65	21.7	16.87	365.7	274.6	0.802	3271	2923	77.60	8.3
70	21.65	19.84	429.0	318.9	0.886	3437	3229	76.60	7.8
75	21.58	23.75	512.0	372.9	0.990	3597	3601	74.80	7.2
80	21.52	27.32	587.4	420.9	1.070	3758	3869	73.40	6.7
85	21.45	31.36	672.0	471.3	1.153	3904	4133	71.60	6.3
90	21.37	35.5	757.9	523.4	1.238	4038	4301	70.20	5.8
95	21.29	40.19	854.8	571.4	1.316	4147	4580	67.70	5.4
100	21.16	46.84	991.0	635.9	1.404	4324	4993	64.60	5.1

MAD 5010 IPE 310KV FLUXER PRO 22x6.6 MATT AMPX 40A PRO (2-6S)

6S MAX 109°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	24.03	1.92	45.8	34.8	0.177	1881	642	76.20	14.0
35	24.01	2.88	68.6	53.4	0.234	2178	877	77.90	12.8
40	23.99	3.86	92.1	71.8	0.284	2418	1075	80.30	12.0
45	23.96	5.8	138.5	111.4	0.378	2812	1462	83.70	11.0
50	23.92	7.75	184.9	148.9	0.459	3099	1819	83.90	10.3
55	23.89	9.87	235.3	189.3	0.537	3364	2164	83.60	9.6
60	23.85	12.15	289.1	231.6	0.614	3602	2510	83.00	9.0
65	23.81	14.43	342.9	274.5	0.687	3815	2814	82.80	8.5
70	23.76	16.86	400.2	319.2	0.759	4018	3100	82.30	8.0
75	23.71	19.89	471.4	373.1	0.841	4234	3388	81.60	7.4
80	23.65	23.22	548.8	430.3	0.927	4436	3751	80.60	7.0
85	23.6	26.52	625.4	483.7	0.999	4622	4094	79.30	6.7
90	23.53	30.41	715.1	545.6	1.087	4792	4482	78.00	6.4
95	23.46	34.12	800.0	603.2	1.160	4966	4773	76.90	6.1
100	23.36	39.65	926.0	685.1	1.261	5187	5209	75.10	5.7

The above data are the theoretical values when the input voltage is 24 V, for reference only. In the case of room temperature of 25°C and no additional cooling device, the current over 40A is non-working zone, 14-40A is short-term (about 10-30s), working zone, and below 14A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

# 5010

## ENERGY EFFICIENT 370KV

### INDUSTRY PROFESSIONAL EDITION

1.5~2.0 kgf

RECOMMENDED HOVER THRUST

4.9 kgf



MAXIMUM THRUST

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

OPTIMIZED WEIGHT 176g

EFFICIENCY >77%



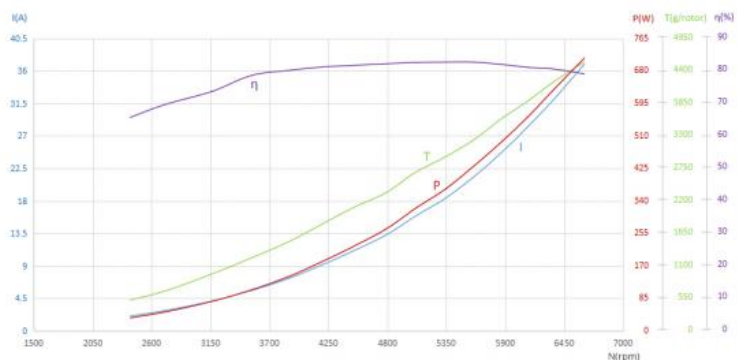
MAD 5010 IPE 370KV FLUXER PRO 18x6.1 MATT AMPX 40A PRO (2-6S)

6S MAX 82°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 24 V, at a temperature of 25°C and sea level. The rotational speed was adjusted by the throttle.



#### Specifications

RPM/V 370 KV Nominal Voltage 6S lipo battery



No Load Current	1.56A / 20V	Internal resistance	38mΩ
Motor Weight	176 g	Product Boxed Weight	339g (110 x 110 x 50 mm)
Maximum Current	44 A	Maximum Power	1019 W
Maximum thrust	4.9 kg	Maximum Torque	1.12 Nm
Recommended ESC	MAD AMPX PRO 40A (2-6S)	Recommended Propellers	17x5.8, 18x6.1, 18x5.7
UAV take-off weight	6S-18/ 7kg--Quadcopter 10.5kg--Hexacopter 14kg--Octocopter	Single rotor take-off weight	1.5kg ~ 2kg

**MAD 5010 IPE 370KV FLUXER PRO 17x5.8 MATT AMPX 40A PRO (2-6S)**

**6S** MAX  
78℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	24.05	1.83	43.6	26.7	0.104	2465	460	62.20	10.7
35	24.04	2.52	60.2	39.6	0.135	2810	620	66.00	10.3
40	24.02	3.4	81.1	56.8	0.172	3167	810	70.10	10.0
45	23.99	4.83	115.4	85.8	0.227	3609	1071	76.40	9.5
50	23.97	6.27	149.7	113.1	0.271	3989	1312	78.70	9.1
55	23.94	7.71	184.1	141.5	0.314	4307	1546	80.00	8.7
60	23.92	9.32	222.5	174.3	0.359	4633	1766	81.40	8.3
65	23.89	11.19	266.8	211.0	0.408	4943	1949	82.10	7.6
70	23.84	13.36	318.0	254.3	0.465	5227	2194	82.80	7.1
75	23.81	15.56	370.1	297.0	0.513	5525	2535	83.00	7.1
80	23.77	18.16	431.2	347.4	0.573	5790	2813	83.30	6.7
85	23.72	21.03	498.1	400.9	0.630	6078	3030	82.90	6.3
90	23.66	24.05	568.5	454.4	0.685	6338	3329	82.20	6.0
95	23.6	27.31	644.0	518.0	0.750	6596	3533	82.50	5.6
100	23.51	32.43	761.9	608.2	0.837	6939	3900	81.50	5.2

**MAD 5010 IPE 370KV FLUXER PRO 18x6.1 MATT AMPX 40A PRO (2-6S)**

**6S** MAX  
82℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	24.05	2.03	48.7	31.7	0.126	2401	519	65.70	10.8
35	24.03	2.79	66.8	46.2	0.162	2722	670	69.60	10.1
40	24.01	4.13	98.6	72.7	0.219	3165	963	73.70	9.8
45	23.98	5.63	134.7	101.7	0.274	3544	1243	78.70	9.6
50	23.95	7.32	175.0	134.7	0.331	3892	1519	80.20	9.0
55	23.92	9.15	218.4	170.6	0.389	4194	1809	81.20	8.6
60	23.88	11.07	263.9	207.8	0.443	4484	2086	81.70	8.2
65	23.85	13.26	315.6	250.3	0.500	4786	2336	82.20	7.7
70	23.8	15.91	378.3	302.0	0.569	5066	2687	82.60	7.3
75	23.75	18.31	434.6	348.1	0.623	5337	2940	82.70	7.0
80	23.7	21.31	504.5	405.2	0.690	5605	3231	82.70	6.6
85	23.65	24.67	582.9	464.8	0.757	5864	3589	82.00	6.3
90	23.58	28.33	667.7	527.8	0.824	6115	3895	81.10	6.0
95	23.51	31.97	751.2	592.7	0.892	6348	4210	80.60	5.7
100	23.42	36.93	864.2	671.6	0.966	6639	4553	79.10	5.4

**MAD 5010 IPE 370KV HAVOC 18x5.7 folding propeller AMPX 40A PRO (2-6S)**

**6S** MAX  
89℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	23.97	2.4	57.0	38.7	0.155	2394	615	71.20	11.3
35	23.95	3.42	81.4	58.1	0.205	2715	868	74.40	11.1
40	23.93	4.52	107.5	78.0	0.246	3025	1091	75.40	10.5
45	23.9	6.03	143.7	107.6	0.305	3369	1346	77.80	9.7
50	23.87	8.13	193.7	148.4	0.379	3744	1681	79.50	9.0
55	23.83	10.31	245.3	190.5	0.443	4109	1922	80.40	8.1
60	23.78	12.96	307.5	240.1	0.521	4405	2240	80.70	7.5
65	23.73	15.43	365.6	284.4	0.578	4698	2557	80.20	7.2
70	23.68	18.16	429.6	334.6	0.643	4973	2852	80.20	6.8
75	23.62	21.36	503.9	390.8	0.715	5217	3191	79.60	6.5
80	23.56	24.79	583.6	448.4	0.781	5483	3502	78.70	6.1
85	23.49	28.59	670.9	515.4	0.860	5722	3814	78.40	5.8
90	23.42	32.25	754.7	578.5	0.923	5985	4063	78.00	5.5
95	23.33	37.16	866.2	654.2	1.011	6177	4505	76.50	5.3
100	23.2	43.96	1019.2	753.9	1.117	6447	4936	74.50	4.9

The above data are the theoretical values when the input voltage is 24 V, for reference only. In the case of room temperature of 25℃ and no additional cooling device, the current over 44A is non-working zone,15-44A is short-term (about 10-30s), working zone, and below 15A 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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