



## M10 IPE V2.0 Angular Contact Ball Bearing Brushless DC Motor Drone

### Our Product Introduction

#### Basic Information

- Place of Origin: Guangdong, China
- Brand Name: GS
- Model Number: M10 IPE V2.0 90KV 100KV 120KV 150KV 180KV
- Price: Negotiable
- Delivery Time: 6-8
- Payment Terms: T/T
- Supply Ability: 100



#### Product Specification

- Motor Model: M10 IPE V2.0
- Motor Size: D:118 X 34 Mm
- Propeller Mounting Holes: D:23 M3x4
- Shaft Diameter: IN: 15 Mm
- Bearing: 6902ZZ/7902CTYNSULP4
- Cable Length: 150 Mm(extended Enameled Wires)
- Rotor Balance:  $\leq 10$  Mg
- Motor Balance:  $\leq 20$  Mg
- Motor Mounting Holes: D:50 M4x4. D:76 M4x4
- Disruptive Test: 500 V
- Highlight: Drone Brushless DC Motor, M10 IPE V2.0 Brushless DC Motor



#### More Images



## Product Description

## M10 IPE V2.0 Angular Contact Ball Bearing Brushless DC Motor Drone

M Series motors are the flagship motors designed specifically for large multi-rotor electric paragliders, large agricultural tethered VTOLs, UAVs. Used for aerial photography, mapping, electric paragliding, agricultural spraying, surveying or anything in between where professional industrial grade propulsion systems are required. This type of motor is made with industrial grade components, it is for the long flight time multirotor hexacopter octocopter for the long flight time tethered drone.

## Benefits of angular contact ball bearings

**Load handling:** Able to withstand high radial and axial loads, enhancing motor performance in a variety of flight conditions.

**Life:** Reduces wear and increases the operating life of the motor due to the ability to effectively handle axial loads.

**Precision operation:** Enhanced bearing design reduces gaming and improves the precision of motor operation, resulting in smoother drone performance.

M10IPE

ENERGY EFFICIENT 90KV  
INDUSTRY PROFESSIONAL EDITION

4.0~6.0 kgf

RECOMMENDED  
HOVER THRUST

16.2 kgf

MAXIMUM  
THRUSTMAXIMUM THRUST MAY DEPEND ON  
BATTERY LEVEL, PROPELLER TYPE,  
AIR PRESSURE AND OTHER CONDITIONSOPTIMIZED  
WEIGHT 614g

EFFICIENCY &gt;83%



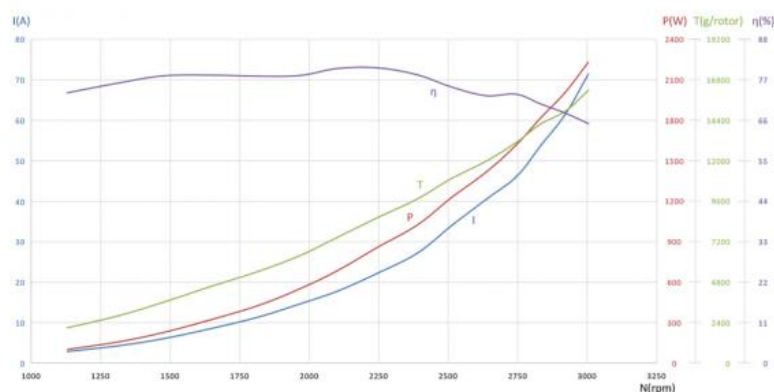
MAD M10 IPE 90KV FLUXER PRO 36x11.5 GLOSSY AMPX 80A (5-14S)

12S MAX  
136°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.



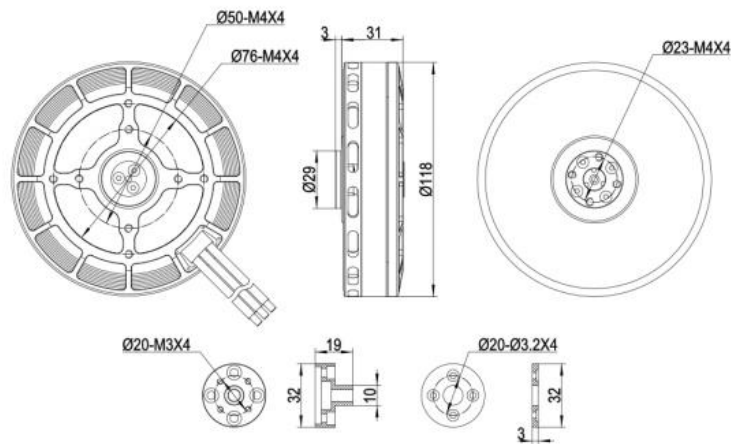
## Motor Data

Motor Model	MAD M10 IPE V2.0	Number of pole pairs	15
Stator	TAIWAN / Anticorrosive	Varnished wire Degree	220°C
Motor Size	D:118 x 34 mm	Magnet Degree	180°C
Degree of Protection	IP35	Cable Length	150 mm (extended Enameled wires)
Centrifugal Heat Dissipation	YES	Rotor Balance	≤10 mg
Propeller Mounting Holes	D:23 M3x4	Motor Balance	≤20 mg
Shaft Diameter	IN: 15 mm	Motor Mounting Holes	D:50 M4x4, D:76 M4x4
Bearing	EZO 6902ZZ / NSK 7902CTYNSULP4	Disruptive test	500 V
Additional Accessories	Propeller Plate *1, M10 Prop Adapter *1, 4.0mm Bullet Connector*3, Heat Shrinkable Tube*3, M4*10mm *4 Motor Screws, M4*10mm *4 Prop Adapter Screws, M3*14mm *4 Propeller Screws, Sticker*2		

## Specifications

RPM/V	90 KV	Nominal Voltage	12S lipo battery
No Load Current	1.5A/30V	Internal resistance	80mΩ
Motor Weight	614 g	Product Boxed Weight	997g (200 x 150 x 70 mm)
Maximum Current	71.5 A	Maximum Power	3422W

Maximum thrust	16.2 kg	Maximum Torque	7.09 Nm
Recommended ESC	MAD AMPX 80A (5-14S)	Recommended Propellers	30x10, 32x9.6, 34x11.2, 32x10.5
UAV take-off weight	12S-36V-18kg-Quadcopter 27kg-Hexacopter 36kg-Octocopter	Single rotor take-off weight	4kg ~ 6kg



MAD M10 IPE 90KV FLUXER PRO 30x10.0 MATT AMPX 80A (5-14S)								12S	MAX 70°C
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.87	1.12	54.1	46.5	0.380	1170	1080	85.98	20.0
35	48.87	1.79	86.9	74.0	0.517	1366	1475	85.14	17.0
40	48.86	2.55	124.1	104.4	0.648	1539	1870	84.12	15.1
45	48.85	3.66	178.1	153.2	0.836	1750	2414	86.01	13.6
50	48.84	4.95	241.2	209.3	1.033	1935	2981	86.74	12.4
55	48.83	6.4	311.9	270.5	1.233	2095	3565	86.71	11.4
60	48.81	8.09	394.6	340.8	1.436	2267	4211	86.33	10.7
65	48.74	10.15	494.3	425.7	1.663	2445	4895	86.09	9.9
70	48.72	12.35	601.1	530.3	1.930	2624	5600	88.17	9.3
75	48.7	15.35	746.8	648.7	2.214	2798	6429	86.8	8.6
80	48.63	18.22	885.5	771.4	2.480	2971	7215	87.08	8.2
85	48.6	22.23	1079.9	903.1	2.758	3128	8089	83.58	7.5
90	48.6	26.08	1267.1	1052.0	3.063	3280	8925	82.97	7.0
95	48.47	30.79	1491.8	1208.7	3.360	3435	9817	80.98	6.6
100	48.42	35.98	1741.8	1384.7	3.695	3578	10745	79.45	6.2

MAD M10 IPE 90KV FLUXER PRO 32x9.6 MATT AMPX 80A (5-14S)								12S	MAX 88°C
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.88	1.4	68.0	56.4	0.470	1148	1253	83.09	18.5
35	48.86	2.17	105.5	89.8	0.637	1347	1767	85.2	16.8
40	48.86	3.02	147.0	126.3	0.796	1516	2244	85.91	15.3
45	48.85	4.47	217.7	186.9	1.040	1717	2927	85.82	13.4
50	48.83	6.08	296.2	257.6	1.297	1897	3637	86.95	12.3
55	48.81	7.88	384.4	333.5	1.543	2064	4318	86.72	11.2
60	48.75	9.84	479.2	412.1	1.775	2217	4998	85.95	10.4
65	48.73	12.13	590.5	508.2	2.034	2386	5767	86.03	9.8
70	48.69	14.73	716.5	629.2	2.354	2553	6657	87.78	9.3
75	48.62	18.03	876.1	762.6	2.680	2717	7504	87.02	8.6
80	48.56	21.52	1044.6	912.0	3.029	2876	8534	87.27	8.2
85	48.57	26.22	1273.2	1061.6	3.352	3025	9347	83.34	7.3
90	48.47	30.75	1490.1	1215.3	3.668	3164	10262	81.51	6.9
95	48.41	36.51	1766.8	1383.4	3.996	3306	11140	78.25	6.3
100	48.27	39.56	1909.3	1562.8	4.337	3441	12139	81.83	6.4

MAD M10 IPE 90KV FLUXER PRO 34x11.2 GLOSSY AMPX 80A (5-14S)								12S	MAX 106°C
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.86	1.87	90.5	79.4	0.676	1121	1748	87.7	19.3
35	48.86	2.99	145.4	125.5	0.912	1314	2353	86.27	16.2
40	48.83	4.34	211.5	179.8	1.164	1476	3001	85.02	14.2
45	48.81	6.05	294.8	251.5	1.451	1656	3714	85.28	12.6
50	48.8	8.25	402.2	340.2	1.769	1836	4525	84.54	11.3
55	48.74	10.57	514.9	430.9	2.066	1992	5241	83.63	10.2
60	48.71	13.1	637.6	528.1	2.364	2134	6154	82.78	9.7
65	48.7	16.49	802.5	655.4	2.735	2288	6990	81.63	8.7
70	48.6	20.51	996.4	791.2	3.096	2440	7950	79.36	8.0
75	48.56	24.28	1178.4	948.1	3.506	2583	9007	80.43	7.6
80	48.42	27.84	1347.7	1113.2	3.901	2725	9908	82.55	7.4
85	48.41	33.25	1609.1	1282.1	4.281	2860	11000	79.64	6.8
90	48.3	37.39	1805.4	1462.9	4.698	2974	12080	81	6.7
95	48.26	43.99	2122.3	1637.2	5.054	3094	12993	77.11	6.1
100	48.13	50.46	2427.9	1816.3	5.412	3205	13809	74.76	5.7

MAD M10 IPE 90KV FLUXER PRO 36x11.5 GLOSSY AMPX 80A (5-14S)

12S MAX  
136°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.14	2.84	136.4	100.2	0.848	1130	2096	73.5	15.3
35	48.13	4.3	206.5	157.5	1.142	1317	2825	76.2	13.6
40	48.12	6.02	289.2	225.8	1.462	1475	3612	78.1	12.5
45	48.1	8.55	410.8	321.7	1.864	1648	4559	78.3	11.1
50	48.11	11.42	549.1	428.6	2.249	1820	5462	78	9.9
55	48.1	14.63	703.1	550.4	2.673	1967	6382	78.2	9.1
60	48.06	17.76	853.3	684.0	3.108	2101	7463	80.1	8.7
65	48.07	22.12	1062.9	854.2	3.636	2243	8614	80.3	8.1
70	48.04	27.13	1303.0	1021.5	4.085	2388	9736	78.4	7.5
75	48.07	33.91	1629.5	1224.8	4.657	2511	10950	75.1	6.7
80	48.03	40.5	1944.7	1415.4	5.126	2637	11992	72.7	6.2
85	47.96	46.07	2208.9	1616.3	5.624	2745	13100	73.1	5.9
90	47.96	53.86	2582.4	1819.0	6.130	2834	14208	70.4	5.5
95	47.98	61.37	2943.8	2003.1	6.550	2920	14936	68	5.1
100	47.9	71.43	3421.6	2228.8	7.085	3004	16198	65.1	4.7

MAD M10 IPE 90KV HAVOC 32x10.5 folding propeller AMPX 80A (5-14S)

12S MAX  
90°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.86	1.61	78.2	68.0	0.574	1132	1485	86.96	19.0
35	48.85	2.59	126.3	109.6	0.789	1327	2070	86.78	16.4
40	48.83	3.79	184.5	160.2	1.027	1490	2701	86.82	14.6
45	48.83	5.43	264.6	226.4	1.288	1679	3391	85.54	12.8
50	48.81	7.39	360.5	307.4	1.577	1861	4149	85.24	11.5
55	48.73	9.63	469.0	399.4	1.894	2015	4887	85.13	10.4
60	48.71	11.7	569.5	486.0	2.144	2165	5618	85.28	9.9
65	48.68	14.61	710.9	596.1	2.447	2326	6366	83.81	9.0
70	48.67	18.25	887.6	728.9	2.804	2482	7229	82.08	8.1
75	48.59	21.82	1060.0	868.6	3.140	2642	8104	81.9	7.6
80	48.52	24.92	1208.5	1035.1	3.548	2786	9099	85.62	7.5
85	48.42	29.79	1442.0	1194.1	3.895	2928	9977	82.76	6.9
90	48.34	34.57	1670.6	1367.0	4.275	3054	10897	81.8	6.5
95	48.26	40.99	1978.0	1542.6	4.636	3177	11820	77.96	6.0
100	48.14	45.49	2189.2	1733.6	5.038	3286	12847	79.16	5.9

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 45A is non-working zone. 15-45A 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.

# M10IPE

ENERGY EFFICIENT 100KV  
INDUSTRY PROFESSIONAL EDITION

4.0~6.0 kgf

RECOMMENDED  
HOVER THRUST

14.6 kgf

MAXIMUM  
THRUSTMAXIMUM THRUST MAY DEPEND ON  
BATTERY LEVEL, PROPELLER TYPE,  
AIR PRESSURE AND OTHER CONDITIONS.OPTIMIZED  
WEIGHT

627g

EFFICIENCY &gt;81%



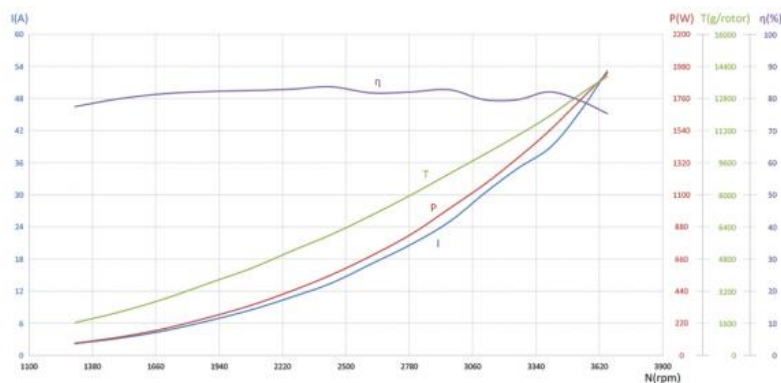
MAD M10 IPE 100KV FLUXER PRO 32x9.6 MATT AMPX 80A (5-14S)

12S MAX  
102°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	100 KV	Nominal Voltage	12S lipo battery
No Load Current	1.8A/30V	Internal resistance	60mΩ
Motor Weight	627 g	Product Boxed Weight	1010g (200 x 150 x 70 mm)
Maximum Current	60.6 A	Maximum Power	2910W
Maximum thrust	14.6 kg	Maximum Torque	5.7 Nm
Recommended ESC	MAD AMPX 80A (5-14S)	Recommended Propellers	29x8.7, 32x9.6, 29x10.0, 32x10.5
UAV take-off weight	12S-32V 20kg--Quadcopter 30kg--Hexacopter 40kg--Octocopter	Single rotor take-off weight	4kg ~ 6kg

MAD M10 IPE 100KV   FLUXER PRO 29x8.7 MATT   AMPX 80A (5-14S)									12S   MAX 65°C
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	49.02	1.59	77.2	55.3	0.395	1336	1148	71.55	14.9
35	49.02	2.3	112.6	83.4	0.521	1531	1536	74.11	13.6
40	49.01	3.38	165.2	127.7	0.692	1763	2076	77.21	12.6
45	49	4.66	227.9	182.5	0.880	1981	2638	80.05	11.6
50	48.99	5.94	290.6	235.7	1.038	2169	3109	81.06	10.7
55	48.97	7.48	366.0	300.2	1.217	2356	3639	81.98	9.9
60	48.91	9.56	467.2	386.1	1.441	2559	4309	82.57	9.2
65	48.87	11.94	583.0	491.1	1.701	2758	5075	84.2	8.7
70	48.86	14.89	726.9	607.5	1.961	2959	5864	83.53	8.1
75	48.82	18.35	895.4	733.3	2.220	3154	6643	81.86	7.4
80	48.74	21.76	1060.2	862.1	2.470	3333	7376	81.26	7.0
85	48.7	25.93	1262.4	1006.8	2.751	3495	8259	79.71	6.5
90	48.63	29.48	1433.3	1166.5	3.036	3669	9117	81.34	6.4
95	48.57	33.13	1608.6	1335.3	3.322	3839	9961	82.97	6.2
100	48.46	36.89	1786.8	1514.4	3.616	4000	10791	84.72	6.0

MAD M10 IPE 100KV   FLUXER PRO 32x9.6 MATT   AMPX 80A (5-14S)									12S   MAX 102°C
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	49.03	2.19	106.8	82.7	0.607	1303	1627	77.48	15.3
35	49.03	3.16	154.2	123.2	0.788	1494	2142	79.87	13.9
40	49.02	4.6	224.9	183.4	1.030	1700	2826	81.52	12.6
45	49	6.61	323.5	266.1	1.332	1909	3653	82.21	11.3
50	48.96	8.52	416.7	343.8	1.576	2084	4348	82.49	10.4
55	48.91	10.84	529.8	439.5	1.859	2257	5188	82.9	9.8
60	48.88	13.45	657.1	549.8	2.158	2434	6011	83.64	9.2
65	48.84	17.1	834.8	682.7	2.495	2613	6983	81.74	8.4
70	48.77	20.78	1013.1	831.6	2.846	2790	8011	82.05	7.9
75	48.72	24.92	1213.9	1004.8	3.246	2956	9044	82.74	7.5
80	48.6	30.36	1475.1	1174.5	3.601	3114	10035	79.59	6.8
85	48.59	34.91	1696.1	1351.4	3.961	3258	10958	79.63	6.5
90	48.43	38.68	1872.8	1537.7	4.322	3398	11916	82.06	6.4
95	48.36	45.1	2180.7	1735.9	4.700	3527	12954	79.57	5.9
100	48.26	53.14	2564.3	1932.5	5.050	3655	13905	75.33	5.4

MAD M10 IPE 100KV   HAVOC 29x10.0 folding propeller   AMPX 80A (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	48.98	1.84	89.7	60.3	0.434	1327	1282	67.18	14.3
35	48.97	2.64	128.9	91.8	0.576	1522	1711	71.15	13.3
40	48.97	3.74	182.8	138.7	0.757	1751	2274	75.86	12.4
45	48.96	5.23	255.5	198.1	0.962	1967	2898	77.52	11.3
50	48.95	6.53	318.9	255.6	1.134	2152	3413	80.09	10.7
55	48.92	8.4	410.3	328.7	1.346	2333	4037	80.08	9.8
60	48.85	10.51	513.0	416.7	1.571	2533	4678	81.18	9.1
65	48.82	12.98	633.0	522.8	1.828	2731	5465	82.54	8.6
70	48.79	15.87	773.6	645.5	2.105	2929	6285	83.4	8.1
75	48.73	19.8	964.2	784.4	2.404	3116	7235	81.3	7.5
80	48.68	22.35	1087.6	926.5	2.689	3290	8063	85.15	7.4
85	48.61	26.59	1292.1	1072.6	2.962	3458	8868	82.99	6.9
90	48.55	32.09	1557.8	1237.1	3.266	3617	9833	79.37	6.3
95	48.5	35.58	1725.4	1404.2	3.545	3783	10633	81.35	6.2
100	48.4	40.2	1945.2	1592.7	3.863	3938	11596	81.83	6.0

MAD M10 IPE 100KV   HAVOC 32x10.5 folding propeller   AMPX 80A (5-14S)									12S   MAX 126°C
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	48.99	2.86	139.6	100.5	0.748	1284	1953	71.99	14.0
35	48.97	4.17	203.5	151.9	0.988	1468	2588	74.6	12.7
40	48.97	5.86	286.5	222.4	1.284	1655	3363	77.59	11.7
45	48.95	8.16	398.8	314.2	1.601	1874	4154	78.73	10.4
50	48.88	10.61	517.9	411.2	1.916	2050	4973	79.34	9.6
55	48.85	13.21	644.7	512.8	2.221	2205	5750	79.51	8.9
60	48.83	16.43	801.6	642.3	2.587	2371	6644	80.08	8.3
65	48.72	19.83	965.5	796.0	3.001	2533	7747	82.4	8.0
70	48.69	24.47	1190.8	954.0	3.380	2696	8661	80.07	7.3
75	48.6	30.29	1471.9	1129.0	3.781	2852	9645	76.66	6.6

80	48.55	35.66	1730.5	1312.9	4.180	3000	10646	75.83	6.2
85	48.39	39.94	1932.5	1508.9	4.617	3121	11750	78.02	6.1
90	48.29	46.19	2230.3	1695.6	5.001	3238	12664	75.98	5.7
95	48.19	53.34	2570.2	1875.1	5.340	3353	13652	72.91	5.3
100	48.02	60.61	2909.6	2069.4	5.732	3447	14570	71.11	5.0

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 61A is non-working zone. 20-61A is short-term (about 10-30s) working zone, and below 20A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

# M10IPE

ENERGY EFFICIENT 120KV  
INDUSTRY PROFESSIONAL EDITION

4.0~6.0 kgf

RECOMMENDED  
HOVER THRUST

17.1 kgf

MAXIMUM  
THRUST

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

OPTIMIZED  
WEIGHT 634 g

EFFICIENCY >79%



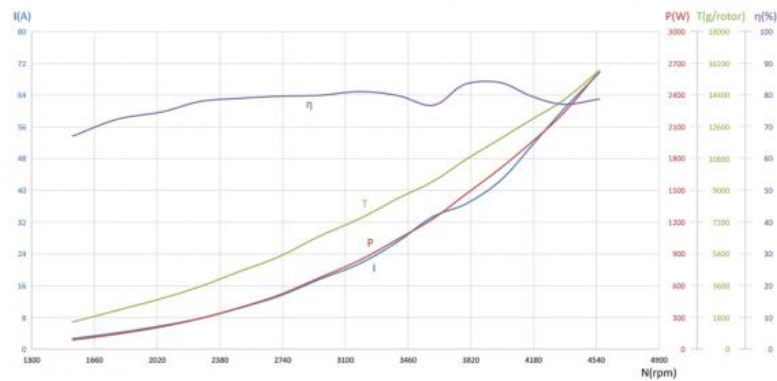
MAD M10 IPE 120KV FLUXER PRO 29x8.7 MATT AMPX 80A (5-14S)

12S MAX  
123°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	120 KV	Nominal Voltage	12S lipo battery
No Load Current	2.1A/30V	Internal resistance	47mΩ
Motor Weight	634 g	Product Boxed Weight	1017g (200 x 150 x 70 mm)
Maximum Current	85.7 A	Maximum Power	3752W
Maximum thrust	17.1 kg	Maximum Torque	6.7 Nm
Recommended ESC	MAD AMPX 80A (5-14S) AMPX 120A (5-14S)	Recommended Propellers	28x8.4, 29x8.7, 32x9.6
UAV take-off weight	12S-29" 20kg--Quadcopter 30kg--Hexacopter 40kg--Octocopter	Single rotor take-off weight	4kg ~ 6kg

MAD M10 IPE 120KV FLUXER PRO 28x8.4 MATT AMPX 80A (5-14S)

12S MAX  
112°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [g]	Efficiency [%]	Efficiency [g/W]
30	48.04	2.33	112.0	70.6	0.432	1560	1368	63.33	12.2
35	48.05	3.5	168.0	112.4	0.588	1826	1857	67.08	11.1
40	48.04	4.92	236.5	170.0	0.780	2081	2478	71.96	10.5
45	48.01	6.49	311.4	229.9	0.952	2307	3000	73.92	9.6
50	48.01	8.34	400.5	303.7	1.145	2534	3638	75.88	9.1
55	48.01	10.77	516.9	407.9	1.404	2775	4453	78.91	8.6
60	47.99	13.85	664.5	534.0	1.685	3026	5368	80.36	8.1
65	47.98	17.72	850.5	676.1	1.971	3275	6264	79.49	7.4
70	47.98	22.15	1062.8	830.9	2.268	3498	7235	78.23	6.8
75	47.94	25.48	1221.6	1001.3	2.575	3714	8228	81.95	6.7
80	47.94	30.16	1446.0	1182.6	2.875	3928	9151	81.78	6.3
85	47.93	35.67	1709.6	1403.8	3.240	4138	10311	82.09	6.0
90	47.94	43.57	2088.9	1637.9	3.601	4343	11432	78.44	5.5
95	47.89	48.52	2323.8	1891.1	3.976	4542	12555	81.38	5.4
100	47.88	57.38	2747.2	2214.4	4.414	4790	13910	80.59	5.1

MAD M10 IPE 120KV FLUXER PRO 29x8.7 MATT AMPX 80A (5-14S)

12S MAX  
123°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/W]
30	48.04	2.71	130.3	87.2	0.542	1535	1550	67.1	11.9
35	48.04	4.16	199.8	144.6	0.770	1793	2214	72.44	11.1
40	48.02	5.97	286.7	214.2	0.997	2051	2893	74.77	10.1
45	48.01	7.79	373.9	291.5	1.227	2268	3565	78.03	9.5
50	48.01	10.28	493.4	389.5	1.497	2484	4381	78.95	8.9
55	48.01	13.32	639.7	509.4	1.792	2714	5227	79.64	8.2
60	47.99	17.58	843.4	674.1	2.183	2949	6398	79.92	7.6
65	48.01	21.61	1037.6	841.6	2.525	3183	7410	81.1	7.1
70	47.98	27.05	1298.0	1036.9	2.914	3398	8531	79.89	6.6
75	48	33.4	1603.3	1231.9	3.266	3602	9511	76.81	5.9
80	47.89	36.6	1752.6	1462.6	3.685	3790	10742	83.45	6.1
85	47.9	42.31	2026.6	1702.3	4.080	3984	11899	84	5.9
90	47.88	51.37	2459.7	1958.9	4.485	4171	13032	79.62	5.3
95	47.89	60.43	2894.0	2231.1	4.896	4352	14119	77.12	4.9
100	47.8	69.72	3333.0	2626.2	5.502	4558	15801	78.78	4.7

MAD M10 IPE 120KV FLUXER PRO 32x9.6 MATT AMPX 120A (5-14S)

12S MAX 134°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/W]
30	44.07	3.68	162.1	118.5	0.816	1387	2089	73.41	12.9
35	44.07	5.38	237.2	178.7	1.077	1585	2781	75.44	11.7
40	44.04	7.9	348.1	275.3	1.436	1831	3693	79.19	10.6
45	44.04	10.6	467.0	379.1	1.783	2031	4591	81.22	9.8
50	44.05	13.66	601.9	492.0	2.127	2209	5510	81.76	9.2
55	44.06	18.41	811.1	625.5	2.491	2398	6514	77.13	8.0
60	43.98	22.4	985.3	799.6	2.952	2587	7639	81.2	7.8
65	43.96	25.95	1140.6	981.7	3.375	2778	8784	86.09	7.7
70	43.99	34.42	1514.2	1203.4	3.890	2954	10152	79.47	6.7
75	43.98	43.52	1913.9	1432.0	4.381	3121	11350	74.82	5.9
80	43.9	47.51	2085.8	1663.8	4.857	3271	12585	79.75	6.0
85	43.89	55.42	2432.6	1890.8	5.289	3414	13777	77.7	5.7
90	43.82	62.42	2735.4	2108.8	5.666	3554	14753	77.05	5.4
95	43.82	73.31	3212.2	2349.3	6.114	3669	15819	73.09	4.9
100	43.78	85.71	3752.2	2656.0	6.659	3809	17161	70.74	4.6

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 85A is non-working zone. 26-85A is short-term (about 10-30s), working zone, and below 26A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

# M10IPE

ENERGY EFFICIENT 150KV  
INDUSTRY PROFESSIONAL EDITION

4.0~6.0 kgf  
RECOMMENDED  
HOVER THRUST

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

OPTIMIZED  
WEIGHT 656g

EFFICIENCY >76%

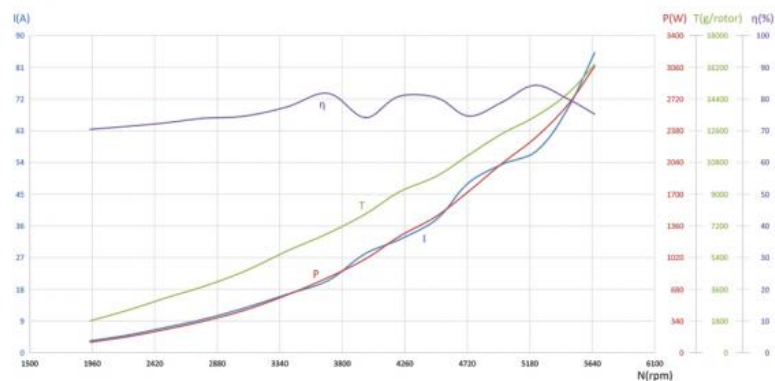


MAD M10 IPE 150KV FLUXER PRO 24x7.2 MATT AMPX 80A (5-14S)

12S MAX 76°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	150 KV	Nominal Voltage	12S lipo battery
No Load Current	2.5A/20V	Internal resistance	24mΩ
Motor Weight	656 g	Product Boxed Weight	1039g (200 x 150 x 70 mm)
Maximum Current	85.1 A	Maximum Power	4079W
Maximum thrust	16.3 kg	Maximum Torque	5.2 Nm
Recommended ESC	MAD AMPX 80A (5-14S) AMPX 120A (5-14S)	Recommended Propellers	24x7.2, 27x8.1
UAV take-off weight	12S-24V 16g--Quadcopter 24kg--Hexacopter 32kg--Octocopter	Single rotor take-off weight	4kg ~ 6kg

MAD M10 IPE 150KV FLUXER PRO 24x7.2 MATT 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	2.31	110.8	69.3	0.327	2023	1182	62.48	10.6
35	48.22	3.29	157.9	103.7	0.426	2323	1568	65.68	9.9
40	48.24	4.67	224.6	150.2	0.547	2621	2008	66.86	8.9
45	48.25	6.08	292.8	203.1	0.667	2909	2429	69.31	8.3
50	48.25	8.19	394.6	283.6	0.842	3217	3004	71.83	7.6
55	48.19	10.34	498.0	366.2	0.982	3560	3631	73.5	7.3
60	48.2	13.49	649.9	492.7	1.212	3883	4384	75.78	6.7
65	48.23	16.87	813.5	621.4	1.417	4189	5202	76.42	6.4
70	48.24	21.27	1025.6	760.8	1.620	4486	5939	74.15	5.8
75	48.22	25.07	1208.7	923.3	1.847	4774	6772	76.34	5.6
80	48.13	29.39	1413.8	1099.4	2.077	5056	7556	77.72	5.3
85	48.16	34.53	1662.5	1279.7	2.295	5326	8361	76.97	5.0
90	48.12	39.82	1915.8	1535.5	2.617	5604	9533	80.18	5.0
95	48.07	41.71	2004.4	1791.3	2.903	5894	10442	89.31	5.2
100	48.04	51.65	2480.6	2066.3	3.199	6168	11513	83.28	4.6

MAD M10 IPE 150KV FLUXER PRO 27x8.1 MATT AMPX 120A (5-14S)

12S MAX  
129℃

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N*m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.22	3.37	162.3	114.3	0.562	1944	1811	70.44	11.1
35	48.23	5.04	242.5	173.2	0.744	2225	2423	71.37	10.0
40	48.24	7.17	345.6	250.5	0.957	2499	3109	72.45	9.0
45	48.19	9.41	452.9	334.7	1.155	2768	3737	73.86	8.2
50	48.18	12.61	606.9	452.6	1.407	3073	4601	74.55	7.6
55	48.22	16.54	797.2	617.3	1.740	3389	5758	77.42	7.2
60	48.14	20.42	982.5	803.8	2.079	3692	6765	81.79	6.9
65	48.19	28.19	1358.0	1007.0	2.421	3972	7883	74.14	5.8
70	48.12	32.15	1546.3	1249.2	2.825	4222	9137	80.86	5.9
75	48.1	37.76	1815.6	1461.2	3.108	4490	10010	80.47	5.5
80	48.12	48.28	2322.9	1732.3	3.496	4731	11226	74.6	4.8
85	48.07	53.45	2568.7	2028.6	3.894	4975	12429	78.94	4.8
90	47.96	56.91	2729.4	2301.1	4.211	5218	13394	84.29	4.9
95	47.93	68.84	3299.1	2646.4	4.635	5453	14663	80.18	4.4
100	47.92	85.13	4078.7	3069.7	5.182	5657	16346	75.23	4.0

The above data are the theoretical values when the input voltage is 48V, for reference only. In the case of room temperature of 25℃ and no additional cooling device, the current over 85A is non-working zone.28-85A is short-term (about 10-30s), working zone, and below 28A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.



# M10IPE

ENERGY EFFICIENT 180KV  
INDUSTRY PROFESSIONAL EDITION

4.0~6.0 kgf  
RECOMMENDED  
HOVER THRUST

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

OPTIMIZED  
WEIGHT 642g

EFFICIENCY >72%



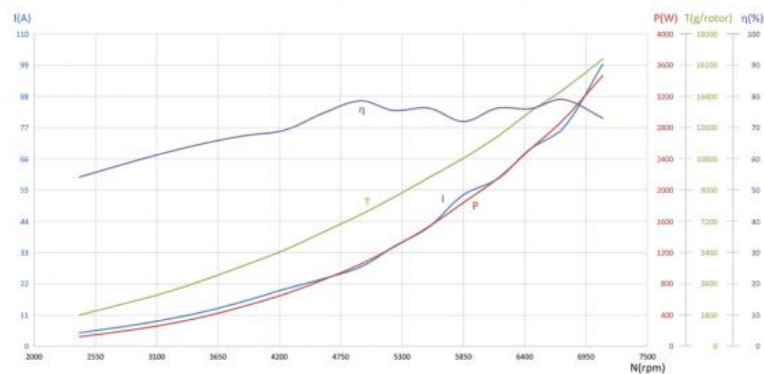
MAD M10 IPE 180KV FLUXER PRO 24x7.2 MATT AMPX 120A (5-14S)

12S MAX  
137°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	180 KV	Nominal Voltage	12S lipo battery
No Load Current	4.4A/20V	Internal resistance	21mΩ
Motor Weight	642 g	Product Boxed Weight	1025g (200 x 150 x 70 mm)
Maximum Current	99.3 A	Maximum Power	4714W
Maximum thrust	16.6 kg	Maximum Torque	4.7 Nm
Recommended ESC	MAD AMPX 120A (5-14S)	Recommended Propellers	24x7.2
UAV take-off weight	12S-24V 22g--Quadcopter 33kg--Hexacopter 44kg--Octocopter	Single rotor take-off weight	4kg ~ 6kg

MAD M10 IPE 180KV FLUXER PRO 24x7.2 MATT AMPX 120A (5-14S)

12S MAX  
137°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.07	4.75	227.9	123.5	0.490	2407	1802	54.15	7.9
35	48.08	6.67	320.3	185.3	0.642	2757	2372	57.8	7.4
40	48.01	8.75	419.8	256.9	0.794	3090	2932	61.13	7.0
45	48.05	11.72	562.5	363.1	0.998	3474	3708	64.52	6.6
50	48.04	15.7	754.0	507.8	1.253	3869	4625	67.32	6.1
55	48.02	20.1	964.6	667.6	1.502	4246	5547	69.17	5.8
60	48.01	23.79	1141.8	852.5	1.772	4594	6581	74.61	5.8
65	47.96	27.96	1340.3	1053.2	2.040	4930	7591	78.54	5.7
70	47.99	35.06	1681.9	1269.8	2.321	5225	8581	75.48	5.1
75	47.93	41.75	2000.2	1525.8	2.634	5532	9689	76.27	4.8
80	47.96	53.34	2557.5	1840.6	3.004	5851	10841	71.97	4.2
85	47.81	59.01	2820.9	2151.2	3.335	6160	12105	76.25	4.3
90	47.83	69.46	3321.5	2523.1	3.736	6450	13515	76.03	4.1
95	47.75	76.63	3658.6	2891.1	4.096	6741	14763	79.01	4.0
100	47.75	99.3	4740.7	3465.4	4.661	7100	16550	73.06	3.5

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 99A is non-working zone, 28-99A is short-term (about 10-30s) working zone, and below 28A 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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