



M20 IPE Brushless DC Motor Drone Designed With D 20 M3x4 Propeller Mounting

Our Product Introduction

Basic Information

- Place of Origin: Guangdong, China
- Brand Name: GS
- Model Number: M20 IPE 80KV 100KV
- Price: Negotiable
- Delivery Time: 6-8
- Payment Terms: T/T
- Supply Ability: 100



Product Specification

- Motor Model: M20 IPE V1.0
- DD118 X34.3 Mm87.1 X26.7 MmMotor Size: D:118 X45.9 Mm
- Propeller Mounting Holes: D:20 M3x4, D:23 M4x4
- Shaft Diameter: IN: 15 Mm
- Bearing: 69022z*2
- Cable Length: 150 Mm (extended Enameled Wires)
- Rotor Balance: ≤10 Mg
- Motor Balance: ≤20 Mg
- Motor Mounting Holes: D:50 M4x4
- Disruptive Test: 500 V
- Highlight: Drone Brushless DC Motor, M20 IPE Brushless DC Motor, M20 Brushless DC Motor



More Images



Product Description

M20 IPE 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.

Key characteristics

High power output:

Maximum thrust: Capable of generating a large amount of thrust, ideal for heavy drones or high-speed applications.
Torque: Provides high torque, allowing the drone to easily handle heavier payloads and challenging flight conditions.

Efficiency:

Optimized power consumption design to extend UAV flight time.
Use advanced design elements to minimize energy loss and maximize performance.

Rugged construction:

Made of high-quality materials to ensure service life and wear resistance.
Suitable for high temperature, high humidity and other environments.

Accuracy and control:

Precision balancing elements ensure smooth operation and reduce vibration.
Provides excellent control for stable flight, making it suitable for applications requiring precise motion.

Enhanced cooling system:

The integrated cooling mechanism effectively dissipates heat, prevents overheating and ensures consistent performance over long periods of use.

M20IPE

ENERGY EFFICIENT 80KV
INDUSTRY PROFESSIONAL EDITION

8~10 kgf

RECOMMENDED
HOVER THRUST

27 kgf



MAXIMUM
THRUST

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

OPTIMIZED
WEIGHT 1028g

EFFICIENCY >81%



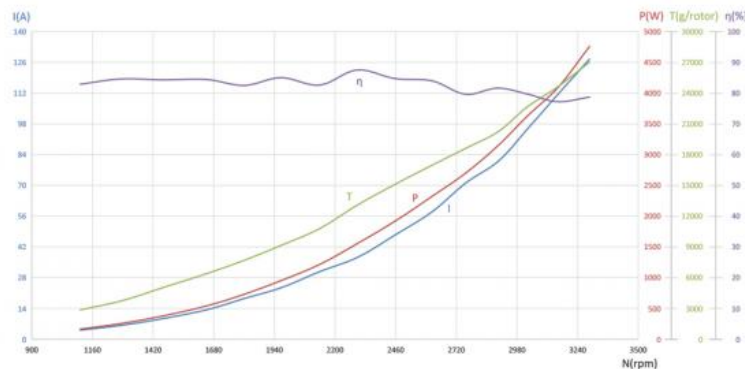
MAD M20 IPE 80KV FLUXER PRO 40x13.1 GLOSSY AMPX 200A (5-14S)

12S MAX
118°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 M20 IPE V1.0	Number of pole pairs	15
Stator	TAIWAN / Anticorrosive	Varnished wire Degree	220°C
Motor Size	D:118 × 45.9 mm	Magnet Degree	180°C
Process of Protection	IP30	Cable Length	160 mm (extended Enamelled wires)

Weight of Propeller	IF20	Carbide Weight	1.04g (Standard 4-blade propeller weight)
Centrifugal Heat Dissipation	YES	Rotor Balance	±10 mg
Propeller Mounting Holes	D:20 M3×4, D:23 M4×4	Motor Balance	±20 mg
Shaft Diameter	IN: 15 mm	Motor Mounting Holes	D:50 M4×4
Bearing	EZO 6902ZZ *2	Disruptive test	500 V
Additional Accessories	Propeller Plate *1, Locate Pin *1, 8.0mm Bullet Connector*3, Heat Shrinkable Tube*3, M4*12mm *4 Motor Screws, M3*16mm *4 Propeller Screws, Sticker*2		

Specifications			
RPM/V	80 KV	Nominal Voltage	12S lipo battery
No Load Current	3.3A/30V	Internal resistance	31mΩ
Motor Weight	1028 g	Product Boxed Weight	1399g (200 x 150 x 70 mm)
Maximum Current	127.5 A	Maximum Power	6045W
Maximum thrust	27 kg	Maximum Torque	13.8 Nm
Recommended ESC	MAD AMPX 200A (5-14S)	Recommended Propellers	40x13.1
UAV take-off weight	125~407g 40kg~Quadcopter 60kg~Hexacopter 80kg~Octocopter	Single rotor take-off weight	8kg ~ 10kg

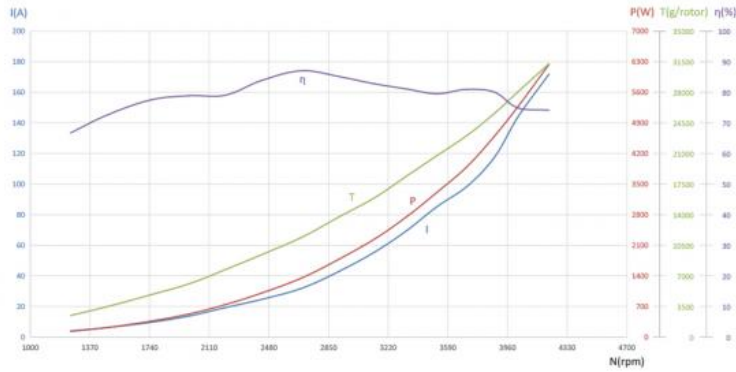
MAD M20 IPE 80KV		FLUXER PRO 40x13.1 GLOSSY		AMPX 200A (5-14S)		12S		MAX 118°C	
Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N·m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [g/fW]
30	47.9	4.16	198.6	164.7	1.420	1108	2862	82.9	14.4
35	47.9	6.3	301.2	255.0	1.898	1283	3733	84.6	12.4
40	47.86	9.3	444.4	375.1	2.456	1458	5001	84.3	11.2
45	47.86	13.44	642.8	542.8	3.139	1651	6408	84.4	10.0
50	47.84	18.53	885.7	730.9	3.854	1811	7697	82.5	8.7
55	47.83	23.39	1118.3	951.5	4.616	1968	9142	85	8.2
60	47.79	30.67	1465.3	1211.6	5.427	2132	10762	82.6	7.3
65	47.74	37.24	1777.0	1555.5	6.471	2296	13084	87.5	7.4
70	47.72	47.55	2268.7	1923.1	7.469	2459	15123	84.7	6.7
75	47.68	57.85	2758.0	2316.5	8.464	2614	16945	84	6.1
80	47.69	71.21	3395.6	2706.3	9.359	2762	18636	79.6	5.5
85	47.64	80.83	3850.2	3144.1	10.362	2898	20216	81.6	5.3
90	47.59	95.58	4548.1	3625.3	11.450	3024	22651	79.7	5.0
95	47.53	111.16	5282.7	4080.0	12.357	3153	24587	77.2	4.7
100	47.43	127.47	6045.0	4759.3	13.810	3291	27021	78.7	4.5

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 127A is non-working zone, 31-127A is short-term (about 10-30s), working zone, and below 31A is sustainable working zone. In actual use, please control the motor running time according to the working environment temperature and heat dissipation conditions.

MAD M20 IPE 100KV FLUXER PRO 34x11.2 GLOSSY AMPX 200A (5-14S) **12S** **MAX**
113°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	100 KV	Nominal Voltage	12S lipo battery
No Load Current	4.2A/30V	Internal resistance	20mΩ
Motor Weight	1031 g	Product Boxed Weight	1402g (200 x 150 x 70 mm)
Maximum Current	171.9 A	Maximum Power	8420W
Maximum thrust	31.2 kg	Maximum Torque	14.1 Nm
Recommended ESC	MAD AMPX 120A (5-14S) AMPX 200A (5-14S)	Recommended Propellers	32x9.6, 34x11.5, 36x11.5
UAV take-off weight	12S-34'V 36kg--Quadcopter 54kg--Hexacopter 72kg--Octocopter	Single rotor take-off weight	8kg ~ 10kg

MAD M20 IPE 100KV FLUXER PRO 32x9.6 MATT AMPX 120A (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	48.78	3.14	153.1	85.3	0.627	1299	1685	55.66	11.0
35	48.79	4.68	227.9	140.4	0.872	1538	2381	61.56	10.4
40	48.81	6.81	331.6	227.6	1.201	1811	3272	68.6	9.9
45	48.79	9.13	445.0	322.5	1.510	2041	4116	72.44	9.2
50	48.79	12.01	585.3	446.9	1.880	2270	5144	76.31	8.8
55	48.82	15.84	773.0	617.9	2.337	2525	6309	79.89	8.2
60	48.82	21.01	1025.1	843.8	2.880	2798	7758	82.3	7.6
65	48.84	28.35	1384.3	1115.6	3.486	3056	9394	80.53	6.8
70	48.83	34.09	1664.2	1410.7	4.077	3305	10993	84.87	6.6
75	48.84	39.27	1917.9	1686.9	4.569	3526	12251	88.11	6.4
80	48.87	53.18	2598.7	2114.9	5.374	3758	14279	81.36	5.5
85	48.82	61.75	3014.5	2557.0	6.132	3982	16224	84.78	5.4
90	48.87	76.33	3729.6	3025.1	6.848	4218	18053	81.09	4.8
95	48.87	89.07	4352.2	3560.7	7.660	4439	20009	81.77	4.6
100	48.9	109.69	5363.0	4477.2	9.087	4705	24033	83.48	4.5

MAD M20 IPE 100KV FLUXER PRO 34x11.2 GLOSSY AMPX 200A (5-14S)

12S MAX 113°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.74	3.72	180.6	116.0	0.873	1269	2233	64.21	12.3
35	48.76	5.53	269.4	186.6	1.198	1489	2971	69.24	11.0
40	48.78	8.68	423.1	319.6	1.730	1764	4257	75.5	10.1
45	48.76	12.29	598.6	468.5	2.239	1998	5470	78.24	9.1
50	48.75	15.98	778.6	639.0	2.745	2223	6748	82.01	8.7
55	48.73	20.1	978.8	862.3	3.335	2469	8108	88.05	8.3
60	48.75	26.42	1287.7	1165.8	4.081	2728	9980	90.49	7.7
65	48.78	38.3	1867.6	1542.7	4.956	2972	12070	82.64	6.5
70	48.81	47.77	2331.2	1938.1	5.782	3201	14046	83.12	6.0
75	48.81	55.4	2703.8	2356.4	6.591	3414	16050	87.21	5.9
80	48.83	68.08	3323.9	2849.9	7.521	3619	18237	85.73	5.5
85	48.84	85.72	4186.3	3335.7	8.297	3839	20098	79.66	4.8
90	48.9	99.17	4848.6	3918.6	9.247	4047	22231	80.8	4.6
95	48.87	110.12	5381.1	4501.3	10.129	4244	24152	83.63	4.5
100	48.88	130.35	6371.9	5385.3	11.416	4505	27435	84.47	4.3

MAD M20 IPE 100KV FLUXER PRO 36x11.5 GLOSSY AMPX 200A (5-14S)

12S MAX 130°C

Throttle [%]	Voltage [V]	Current [A]	Input Power [W]	Output Power [W]	Torque [N×m]	RPM	Thrust [gf]	Efficiency [%]	Efficiency [gf/W]
30	48.75	3.95	192.1	128.1	0.978	1251	2455	66.64	12.8
35	48.77	6.09	296.3	214.7	1.390	1475	3457	72.42	11.6
40	48.74	9.66	470.5	364.7	1.988	1752	4847	77.46	10.3
45	48.77	13.71	668.0	526.3	2.532	1985	6082	78.75	9.1
50	48.79	19.12	932.2	735.7	3.186	2205	7659	78.89	8.2
55	48.82	24.64	1202.4	1008.0	3.949	2438	9424	83.79	7.8
60	48.79	31.93	1557.6	1354.6	4.816	2686	11406	86.91	7.3
65	48.8	43.12	2103.8	1788.6	5.852	2919	13759	84.98	6.5
70	48.86	55.58	2715.0	2244.8	6.835	3137	15921	82.63	5.9
75	48.87	69.48	3395.4	2750.1	7.878	3334	18379	80.97	5.4
80	48.89	85.27	4168.8	3312.5	8.978	3523	20736	79.41	5.0
85	48.92	98.36	4811.3	3892.5	10.027	3707	23004	80.85	4.8
90	48.91	117.03	5722.8	4580.3	11.286	3875	25490	80	4.5
95	48.95	144.04	7049.8	5274.3	12.512	4025	28023	74.77	4.0

100	49	171.86	8419.8	6238.1	14.126	4217	31219	74.05	3.7
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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 172A is non-working zone, 40-172A is short-term (about 10-30s), working zone, and below 40A 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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