

Ultrafly F/12/xx Series

Brushless, Sensorless Motors



A light weight motor that is Strong, Powerful, Versatile & Economy

Ultrafly's new F/12/xx series brushless sensorless motor is a light weight 77g motor with over whelming 250 watt power. It was designed based on our famous B/12 series. The versatile application covers 3D flying, Park Flyers & small helicopters as well as E-conversion a 20/25 class gas power model. The precision CNC tooling with hi-quality material allows this motor to operate at higher RPM without vibrations. A unique patented design forces the magnet to hold its position when your propeller suddenly stops in high RPM. Quality, Strong and Efficiency are the goal we are shooting for! Versatile is the word best describe its capability! It provides 2 different shaft sizes (4 & 3.17mm) to meet your application.

Specification

Shaft diameter: 4mm & 3.17mm(1/8inch)

Shaft Length: 55.0mm

Motor Diameter: 32.8mm

Motor Length: 35.6mm

Motor Weigh: 77g (2.72oz)

Distance of mounting holes: 16mm & 21mm

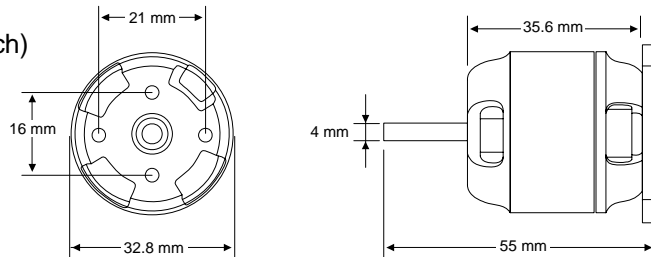
Mounting screw: M3x3mm

Maximum Input Power: F/12/10 250watt, F/12/31 300watt

Maximum RPM: 38,000

Maximum Operating Temperature: 100 ° C

Magnet: Neodymium (150 ° C temperature tolerance)



Model	Max Amp	RPM/Volt	Airplane	AUW	Prop size
F/12/10	24	1000	3D	600g, 21oz	8 – 11 inch
			Sports	1.2kg, 42oz	8 – 10 inch
			Hi-Wing	1.5kg, 32oz	9 – 10 inch
F/12/31	30	3100	Helicopter	400 & up	

F/12/xx motor application reference table with APC propeller

MODEL	V	A	W	RPM
F/12/10				
8x8E	8	11.7	93.60	6810
	10	16.4	164.00	8100
	10.8	18.90	204.12	8700
9x6SF	8	15.30	122.40	6420
	10	21.60	216.00	7230
	10.8	23.70	255.96	7440
9x6E	8	10.60	84.80	7080
	10	14.70	147.00	8430
	10.8	16.30	176.04	8880
9x7.5E	8	14.20	113.60	6510
	10	19.40	194.00	7620
	10.8	21.80	235.44	7980
10x4.7SF	8	15.10	120.80	6300
	10	21.10	211.00	7380
	10.8	23.70	255.96	7680
10x7E	8	14.30	114.40	6600
	10	18.80	188.00	7830
	10.8	20.80	224.64	8220

Option Parts:

UFP-ADT-4060 Aluminum Propeller Adapter 4.0/6.0 mm

UFP-SHT-021 4.0X55mm v2 motor shaft for F/12

UFP-SHT-022 3.17X55mm v2 motor shaft for F/12

UFP-SHC-004 shaft w/ bearing 013 combo for F/12 motor

UFP-BRN-013 4X8X3mm bearing for F/12 & F/18

UF-MNT-001 Aluminum back mount plate for B, F series motor

Cautions:

Speed Controller: You must use a brushless, sensorless speed controller.

Cooling: You must provide proper cooling to avoid exceeding the 100-degree-celcius limit.

Overheating will damage the magnets and windings, and is not covered under warranty. Proper cooling is necessary when you are trying to use it in larger power (>120 watt) application. In poor air flow applications like Helicopter or boat, you may have to use proper airflow redirection device or power fan to cool the motor or you may result in over heat situation to the motor.

Over current: Please use a current meter to control the battery cell count and the

propeller size. When changing propeller size, or battery type you must measure the current. You must limit current to the specifications above, or less, to avoid damage to the motor. Reduce prop size or battery cell count to reduce current.

Max input watt: For each motor, its structural design will limit its heat dissipation. Watt input is proportional to heat generated. The maximum watt input for F/12 series is 250 watts. Do not exceed this limit or you may easily burn out the motor.

Rotation: Switch any two of the three wires between speed controller and motor to reverse motor direction. NEVER reverse polarity from battery to speed controller.

Limited Warranty:

Ultrafly brushless motors have a one-year, limited warranty from date of purchase. All motors are guaranteed to be free from manufacturing defects for one year. The warranty does not cover over-current, over-temperature, or crash damage. The customer must properly cool the motor and keep the current and input wattage within specifications. Improper use of the motor can be determined in service and will not be covered in the warranty.

All warranty issues shall be handled by your dealer first. If necessary, you may also contact us for warranty issues. Send mail to service@ultraflymodel.com or contact the distributor in your country.

Distributor List in all countries:

North and South America Area: Hobbico Inc. TEL: 217-398-0007

United Kingdom: CML Distribution. TEL: 1527-575349

Germany, Austria, Italy & Eastern Europe: JSB Distribution TEL: 49 4121 46199 66

Japan: Angel Japan TEL: 06 6790 3338

Northern Europe: Minicars Distribution AB. TEL: 18 60 65 72

Australia & New Zealand: O'Reilly Model Products. TEL: 08-8351-0544

Korea: Sung Kwang RC. TEL: 31-719-6371



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