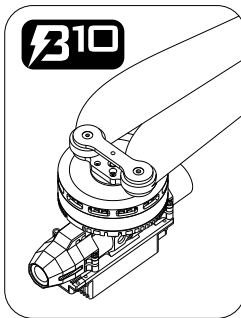




感谢您使用本产品！本产品功率强大，错误的使用可能导致人身伤害和设备损坏，强烈建议您在设备使用前仔细阅读本说明书并保存，严格遵守规定的操作程序。我们不承担因使用本产品或擅自对产品进行改造所引起的任何责任，包括但不限于对附带损失或间接损失的赔偿责任。我们有权在不通知的情况下变更产品的设计、外观、性能及使用要求。

01 主要特性

- 电调采用功能强大STM32F051系列MCU，ARM 32位 Cortex内核，工作频率48MHz；
- 电调采用专用国际知名品牌MOSFET，配合低阻抗线路板，降低温升，提高驱动器可靠性；
- 专门针对多旋翼设计的程序，使用主动续流ASCF（Active Switch Continued Flow）技术，效率更高，显著降低发热；
- 全铝合金外壳，显著提高散热能力；独特低热传导设计，电机和电调隔离，有效降低两者间的热传导；
- 防溅水，耐腐蚀，尤其适合农用植保机的作业使用；
- 最高可支持刷新率高达500Hz的油门信号，兼容各种飞控（注：>=500Hz的油门信号皆为非标准油门信号）；
- LED颜色可根据需求进行预先设置；
- 动力套模块化设计，维护更方便。



02 产品规格

型号: FlyDragon B10
制造型号: B-FW130013-40A1
锂电节数: 5-14S
推荐应用: 7-10kg单轴/12S
8.5-11kg单轴/13S
9.5-12kg单轴/14S
适用碳管: 40mm
重量: 1.25kg (不含桨叶)
最大拉力: 21kg

电调

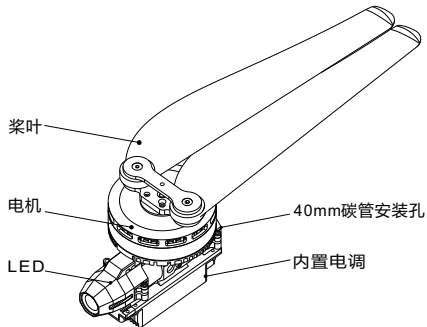
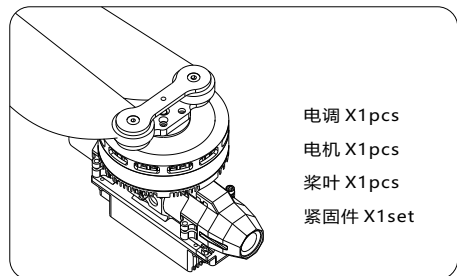
持续电流: 130A (散热条件良好)
瞬时电流: 150A (散热条件良好)
默认油门: 1100-1900us (固化,不可校准)

电机

型号: 10010
KV: 105KV
外径: 110mm

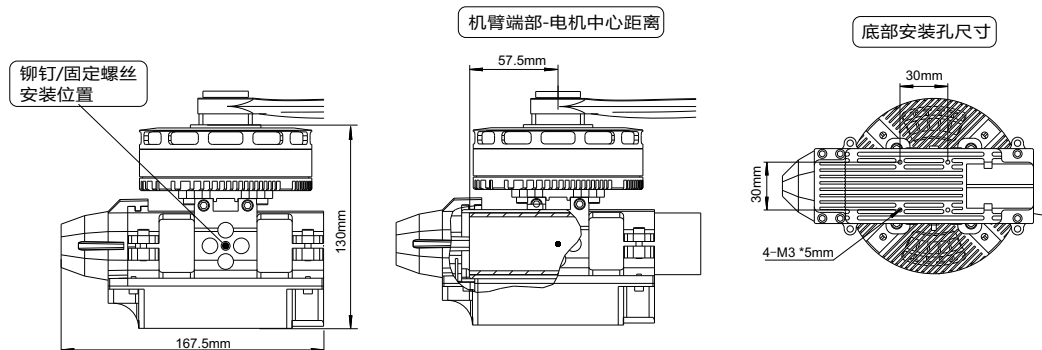
桨叶

型号:
3316 碳纤折叠桨
重量: 0.2kg

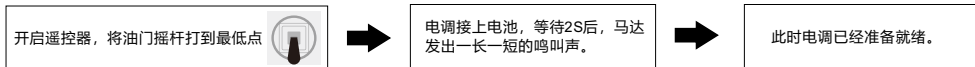


图片仅供参考，产品以实物为准。

03 尺寸示意图



04 操作说明



05 保护功能

- **启动保护**: 当加大油门时，三秒内未能正常启动马达，电调将会关闭动力输出，油门摇杆需再次置于最低点后可以重新启动马达（出现这种情况的原因可能有：电调和马达连接接触不良或有断开、螺旋桨被其他物体阻挡等）。
- **过负荷保护**: 当负载突然变得极大时，电调会切断动力，须油门归零后才可正常操作。当马达和电调失步时，电调会自动尝试重新启动。
- **油门信号丢失保护**: 当电调检测到油门遥控信号丢失0.32秒以上即立即关闭输出，以免因螺旋桨继续高速转动而造成更大的损失。信号恢复后，电调也随之恢复相应的功率输出。

06 常见故障及提示音

故障现象	警报音	可能原因	解决办法
上电后马达无法启动	“哔哔哔”的急促低音	油门未归零或行程设置过小	将油门打至最低点或重新设定油门行程
上电后马达无法启动	“哔、哔、哔、……”（每个间隔1秒）	接收机油门通道无油门信号输出	检查发射机与接收机配合是否正常；检查油门控制通道接线是否正常
上电后马达无法启动	“哔-哔、哔-哔-哔-……哔-哔-”循环鸣叫	油门通道“正反向”错误	参考遥控器说明书，调整油门通道正反向设置

07 注意事项

- 电调不可泡水工作。合理使用可延长使用寿命，电调防溅水，耐腐蚀。在使用过一定时间后，请清理电调上的水渍，污渍，避免电调短路。
- 动力系统中电调和电机部分在出厂已经组装完成，用户可根据电机旋转方向安装对应的桨叶，然后整体安装在植保机机架上。
- 如需更换配件，如桨叶，桨夹等，请联系飞盈佳乐售后，禁止用户自行使用不适当的配件。
- 出厂默认为22.5°进角，动力套装已经匹配良好，正常情况下不需要更改进角。
- LED可在出厂前预设置颜色。如在使用中想再次更改，需用手机Flycolor App和Wifi模块(需单独购买)进行更改，请咨询飞盈佳乐售后。
- 使用时务必远离人群、高压线等，请遵守法律法规使用。
- 无论任何时候都要注意极性，供电之前一定要反复检查。
- 在插拔或者做任何连接时，请关闭电源。
- 飞行前务必检查所有紧固件是否可靠、无松动现象，电机安装是否水平。
- 首次使用无刷电调或更换遥控设备后需要进行油门行程校准。
- 为避免短路和漏电，请确保连接处绝缘良好。
- 如需更多信息，请联系飞盈佳乐售后或者技术支持。



Thank you for using our product. Any improper operation may cause personal injury damage to the product and related equipments. This high power system for RC model can be dangerous, we strongly recommend reading the user manual carefully and completely. We will not assume any responsibility for any losses caused by unauthorized modifications to our product. We have the right to change the design, appearance, performance and usage requirements of the product without notice.

01 Main features

- ESC use STM32F051 MCU, ARM 32-bit Cortex Core with 48 MHz frequency.
- Special international famous brand MOSFET is used in the ESC, which is combined with low impedance circuit board to reduce the temperature rise and improve the reliability of the ESC.
- The firmware is specialized for multi-rotor, uses ASCF technology (Active Switch Continued Flow), higher efficiency, significantly reduce the heat when ESC's working.
- Aluminum cover, significantly improving heat dissipation. Unique low heat conduction design, motor and ESC isolation, effectively reduce the heat conduction between them.
- Splash-proof, corrosion resistant, especially suitable for agricultural plant protection multi-rotor;
- Supports frequency of throttle signal to 500Hz max, compatible with various kinds of flight control. (≥500Hz throttle signal is nonstandard signal)
- The color of the LED can be preset according to requirement.
- Modular design of power system makes maintenance more convenient.

02 Specification

Model: FlyDragon B10

Mfg Model: B-FW130013-40A1

LiPo Cells: 5-14S

Recommended load:

7-10kg per axis w/12S

8.5-11kg per axis w/13S

9.5-12kg per axis w/14S

Recommended carbon tube : 40mm

Weight: 1.25kg (Propeller not included)

Maximum Thrust: 21kg

ESC

Cont. current: 130A
(Good heat dissipation)

Burst Current: 150A
(Good heat dissipation)

Default Throttle Range: 1100-1900us
(Fixed, can not be calibrated)

Motor

Model: 10010

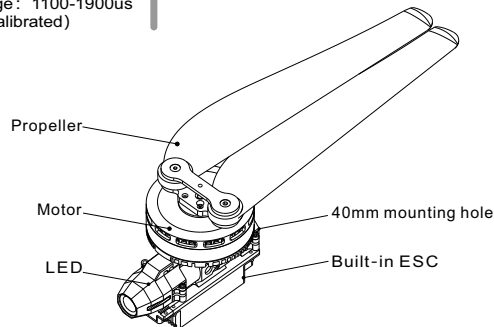
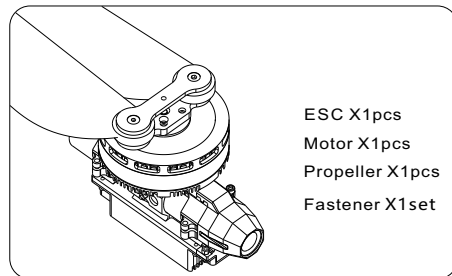
KV: 105KV

OD: 110mm

Propeller

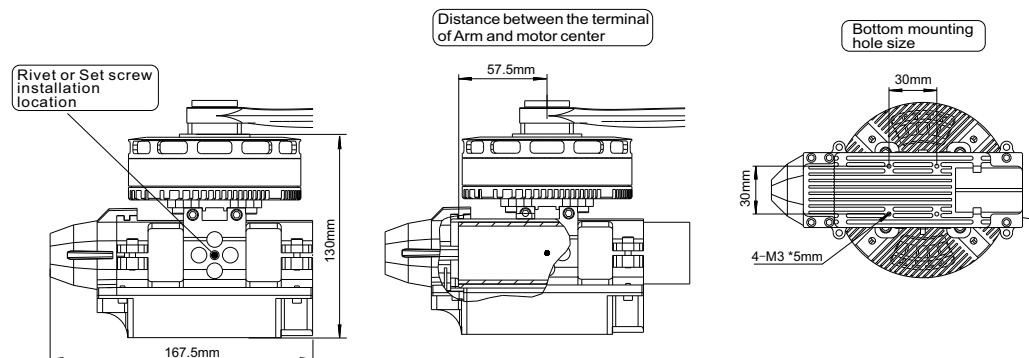
Model: 3316
Carbon fiber folding

Weight: 0.2kg



All pictures are for reference only.

03 Dimensions



04 Operation instruction

Turn on the transmitter, move the throttle stick to the bottom position



Connect ESC & battery packs, wait for 2 seconds, motor emits continuously 1 long and 1 short tone.

ESC is ready for working.

05 Protections

- **Start-up Protection:** ESC will cut off output if it fails to start the motor within 3 seconds by accelerating throttle. you need to move the throttle stick back to the bottom position and restart the motor. (The possible causes: Bad connection or disconnection between ESC & motor, propellers are blocked, etc)
- **Over-load Protection:** ESC will cut off power or output when the load suddenly increases to a very high value, normal operation will resume after moving the throttle stick to the bottom position. ESC will automatically try to restart when ESC and motor are out-of-step.
- **Throttle Signal Loss Protection:** When ESC detects the loss of throttle signal for over 0.32 seconds, it will cut off power or output immediately to avoid an even greater loss caused by the continuous high speed rotation of propellers. ESC will resume the corresponding output after the normal signal is restored.

06 Trouble shooting

Trouble	Warning Tone	Possible Cause	Solution
ESC was unable to start the motor	"Beep beep beep..." Urgent short tone	The throttle stick is not at the bottom position or throttle range is too small.	Move the throttle stick to the bottom position or reset the throttle range.
ESC was unable to start the motor	"Beep,beep,beep..." Time interval is 1 second	No output signal from the throttle channel on the receiver.	Check if the communication is normal between transmitter and receiver; Check throttle channel connection well.
ESC was unable to start the motor	"Beep-beep,beep-beep-beep,..." Beep--beep-- Circular tones	The "Normal/Reverse" direction of the throttle channel on transmitter is incorrect.	Refer to the transmitter instruction and adjust the setting of "Normal/Reverse" direction of the throttle channel.

07 Attention

- ESC can not work under water. Reasonable use of ESC can prolong the service life. Splash-proof and corrosion resistant, please clean up the water and stains on the ESC after a certain period of time, to avoid electric short circuit.
- ESC and Motor has been assembled in the factory. The user can install the propeller according to the rotation direction of the motor.
- If you need to replace accessories, such as propeller, propeller clips, etc., please contact Flycolor for support. Users are not allowed to use improper accessories by themselves.
- ESC factory default value is 22.5°, This power system has been matched well, and it is not necessary to change the timing under normal conditions).
- The color of the LED can be preset at the factory. If you want to change it again in use, you need to use the Flycolor app and WiFi Trans (to be purchased separately), please contact Flycolor sales for support.
- Please keep away from the crowd, high voltage line, etc. Please follow the laws and regulations.
- Pay attention to polarity at any time, and check it repeatedly before power on.
- Please turn off the power supply when plugging or making any connection.
- Before flight, check whether all screws are loose and whether the motor is installed horizontally.
- User need to calibrate the throttle range when starting to use a new ESC or change another transmitter.
- Please ensure all solder joints are well insulated.
- Please contact Flycolor sales or technical support for more information.