X15 动力套技术参数

X15 Propulsion System Specification

动力套参数 All-in-One Thrust System Specification

产品型号 Model	X15	适配锂电池 Compatible Lithium Battery	LiPo-18S
额定电压 Rated Voltage	69V (18S LiPo)	电压范围 Input Voltage	36~78.3 V
额定拉力 Rated thrust	32.5~37.5 kg（海平面、环境温度25℃） 32.5~37.5 kg (sea level, ambient temperature 25℃)	最大拉力 Max thrust	72 kg
额定拉力力效 Efficiency at rated thrust	8.9~8.4 g/W （MFP 63x24）	适用海拔 Operating Altitude	0~2000 m （不同环境温度下，海拔每升高 1500m，单轴起飞重量下调 5%~10%） (For every 1,500 m increase in altitude, the single-axis takeoff weight must be derated by 5% to 10% under different ambient temperatures.)
最大允许飞行速度（无风） Max Allowable Flight Speed (calm air)	13.8 m/s	适用环境温度 Operating Temperature	-10~40 ℃
防护等级 Ingress Protection	IPX6	动力套重量（含线、不含桨） Weight (with cable，without propeller)	4718 g
线材规格 Cable Specification	电源线：7AWG 1500 mm 信号线：1550 mm Power Cable: 7AWG 1500 mm Signal Cable: 1550 mm	适用碳管直径 Tube Outer Diameter	60 mm
线序 Pinout	黑-GND，白-PWM；黄-GND, 灰-CH，绿-CL Black-GND, White-PWM & Yellow-GND, Gray-CH, Green-CL	额定输出功率（最大持续功率） Rated Output Power (max continuous)	4180 W
额定转速 Rated RPM	1650 rpm	额定功率密度 Rated Power Density	4.40 KW/kg

*本产品标注的拉力性能参数，均基于好盈封闭实验室（海平面，环境温度25℃）测试平台独立测试获得。
*在实际飞行工况中，受飞控系统适配程度、整机构型布局差异、重心配置状态等多重因素影响，各轴电机的实际输出功率并非完全均等，存在分配差异。产品选型时请充分考量上述工况偏差，建议以官方推荐的额定拉力参数作为选型依据。
*The thrust performance parameters of this product are independently measured on the test bench in Hobbywing's enclosed laboratory (sea level, ambient temperature 25℃).
*In real flight scenarios, multiple factors such as flight controller matching, airframe layout differences and center-of-gravity configuration can lead to unequal actual output power for motors on each axis, resulting in power distribution imbalance. Fully account for such operational deviations when selecting products; use the official rated thrust parameters as the selection reference.

电调技术参数 ESC Specification

电压范围 Input Voltage	36~78.3 V	通讯方式 Communication Protocol	HWCAN / DroneCAN
电调尺寸 ESC Size	185*106*52.2 mm	重量（不含线） Weight (without cable)	735 g
最大电流（3s） Peak Current（3s)	300 A @69 V	持续电流 Continuous Current	100 A @69 V
防护等级 Ingress Protection	IPX7	油门源 Throttle Source	PWM+CAN
PWM脉宽 Operating Pulse Width	1050~1950 μs	黑匣子功能 Black Box	故障数据 + 2小时日志 Fault data and 2-hour log
油门行程校准 Throttle Range Calibration	固化不可校准，软件可修改范围 Solidified and cannot be calibrated (can be changed via DataLink software)		

电机技术参数 Motor Specification

KV值 KV	45 KV	槽极数 Slot & Pole	36槽42极 36N42P
电机外径 Motor Diameter	167.1 mm	电机重量 (含线) Weight (with cable)	2850 g
防护等级 Ingress Protection	IPX6	桨叶安装尺寸 Propeller Mounting Dimensions	D46-8*M6，中心孔D19 D40-4*M5, centre hole D19

桨叶参数 Propeller Specification

产品型号 Model	MFP 63×24	重量 Weight	1190 g
主要材质 Material of Propeller	碳纤维增强尼龙复合材料 Carbon fibre-reinforced nylon composite material	安装尺寸 Mounting Dimensions	D46-4*M6,中心孔D19 D40-4*M6, centre hole D19
安装螺丝锁紧扭矩 Mounting Screw Tightening Torque	8 N·m	适用海拔 Operating Altitude	0~2000 m
桨根到桨尖的距离 Blade Length (end of root to tip)	772.6 mm		