



INSPIRED FLIGHT



# IF1200 Hexacopter

Specification Sheet

**INSPIRED FLIGHT TECHNOLOGIES, Inc.**



## AIRCRAFT PERFORMANCE

Diagonal Size (propeller center to center)	995 mm (39.2 inches)
Dimensions (unfolded w/ propellers) (WxLxH)	1445 x 1315 x 705 mm (56.9 x 51.8 x 27.8 inches)
Dimensions (folded) (WxLxH)	600 x 550 x 610 mm (23.6 x 21.7 x 24.0 inches)
Aircraft weight w/o batteries	7.6 kg (16.7 lbs)
Aircraft Weight w/- IF977Wh Battery	13.4 kg (29.5 lbs)
Max Recommended Takeoff Weight	22.0 kg (48.5 lbs)
Max Payload Weight	8.6 kg (19.0 lbs)
Max Angular Velocity	Tilt: 300°/s, Yaw: 120°/s
Max Tilt Angle	35°
Wind Resistance	10 m/s (19.4 knots) continuous, 12 m/s (23.3 knots) gusts
Max Ascent Speed	5 m/s (16 ft/s)
Max Descent Speed	3 m/s (10 ft/s)
Max Ground Speed	22 m/s (49 mph)
Operating Temperature Range	-10°C ~ 40°C (14°F ~ 104°F)
Max Flight Time	See Figure 2 (page 4)
Max Altitude	See Figure 3 (page 4)

## REMOTE CONTROL

Remote Control Unit	Union Robotics HereLink Blue
Remote Control Software	QGroundControl on Android (Mavlink & ATK compatible)
Radio Operating Frequency	2.4 GHz, 20 MHz Interference
Encryption	AES 128 Hardware Accelerated Encryption
Signal Range (line of sight)	3.7 KM (2 NM)
Remote Control Battery	Built-in 4950 mAh Lipo Battery
Remote Controller Certifications	FCC 20 KM, CE 12 KM
Operating Temperature Range	0-40°C (32-104°F)



## FLIGHT HARDWARE

Flight Controller	Flight Controller	Modal AI Flight Core
	Operating Software	PX4 (Modified Hexarotor 6001)
	Barometer Accuracy	+/-1.5 mbar
Global Positioning	GPS	mRo Ublox Neo-M9N GPS & GLONASS
	Positioning Accuracy	1.5 m Horizontal
Power Distribution Board	Power Distribution	IF-PDB-Hexa
	Total Motor Outputs	6x - 50A Continuous
	Auxiliary Power Rails	5v, 12/15/18v, 44v
Propulsion	Motor	6x - KDE 5215XF 220Kv
	Propeller	18" x 5.9" (458 x 150 mm)
	Max Thrust per Motor	7.1 kg (15.7 lbs) @ 48v
Default Navigation Light Color Pattern > if preference not specified		Front Left & Middle Left: Red-ON Front Right & Middle Right: Green-ON Rear Left & Rear Right: White-ON

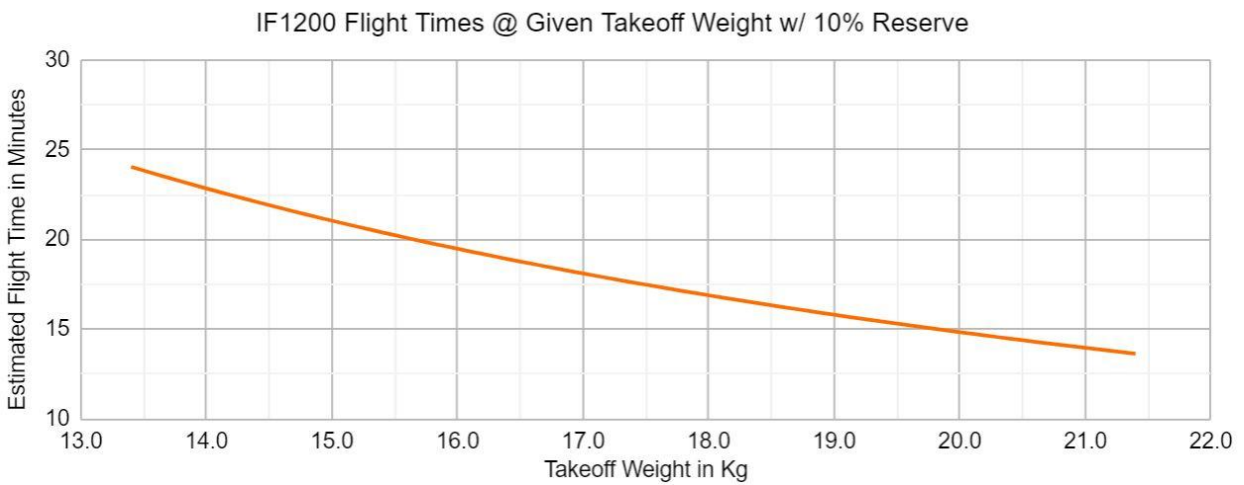
## 977Wh BATTERY

Max Energy at Nominal Voltage		976.8 Wh
Nominal Voltage		44.4 V
Nominal Capacity		22,000 mAh
Classification		Lithium Polymer 12S1P
Net Weight		6,200 g (13.7 lbs)
Charging	Max Current	22.0 Amps (1C)
	Max Voltage	50.4 Volts
Discharge	Max Continuous Current	550 Amps (25C)
	Max Burst Current	1100 Amps (50C)
	Minimum Voltage Cut-off	36.0 Volts (40.0v recommended)
Self - Discharge		<5% per month
Operating Temperature Range		-10°C ~ 50°C (14°F ~ 122°F)
Max Payload with one 977 Wh Battery		6.6 kg (14.5 lbs)

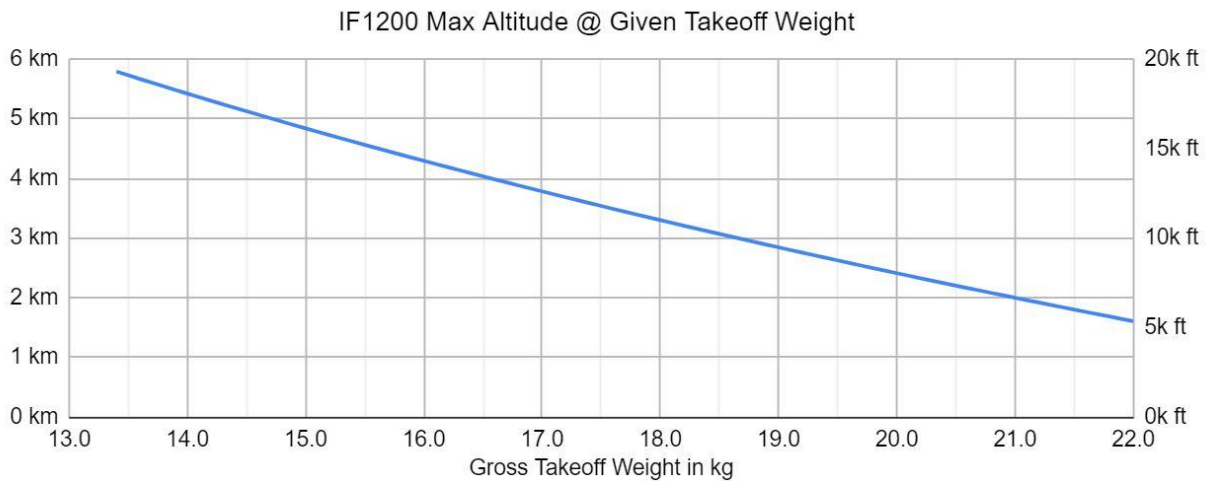


## Standard Battery Charger

Charger	TA1200
Input Voltage	100v - 240v AC
Output Charge Capacity	750w x 2 Channels , Up to 1200w (240v)
Lithium Battery Compatibility	Up to 4.2v/cell, 12s 50.4v max
Typical Charge Time (977Wh Battery)	~110 Minutes



**Figure 2**



**Figure 3**