

X9 Propulsion System Specification

All-in-One Propulsion System Specification

Product name	X9	Max thrust	22 kg
Recommended takeoff weight per axis	7-11 kg	Efficiency of recommended takeoff weight	8.7-6.9 g/W
Compatible lithium battery	12S-14S (LiPo)	Rated voltage	12S-46 V/14S-54 V
Input voltage	18-60.9 V	Tube outer diameter	Φ40 mm
Weight (with cable and propeller)	1524 g*	Cable specification	Power cable: 1000 mm* Signal cable: 1090 mm*
Operating temperature	-20~50 °C	Ingress protection	IPX6
Pinout	Black White-GND, PWM, Yellow Red Green-GND, 5V, P	Rated output power (Max continuous)	1450 W
Size	149.6 * 104 * 121.4 mm		

ESC Specification

Rated voltage	12S-46 V/ 14S-54 V	Communication protocol	UART
Peak current (3s)	120 A (3s)	Continuous current	40 A
Throttle range calibration	Not supported	Throttle signal	PWM
Operating pulse width	1100-1940 μs	Fault storage	Not supported

Motor Specification

KV value	110 KV	Slot & Pole	36N40P
Stator size	Φ96 * H16 mm	Motor diameter	Φ104.0 mm

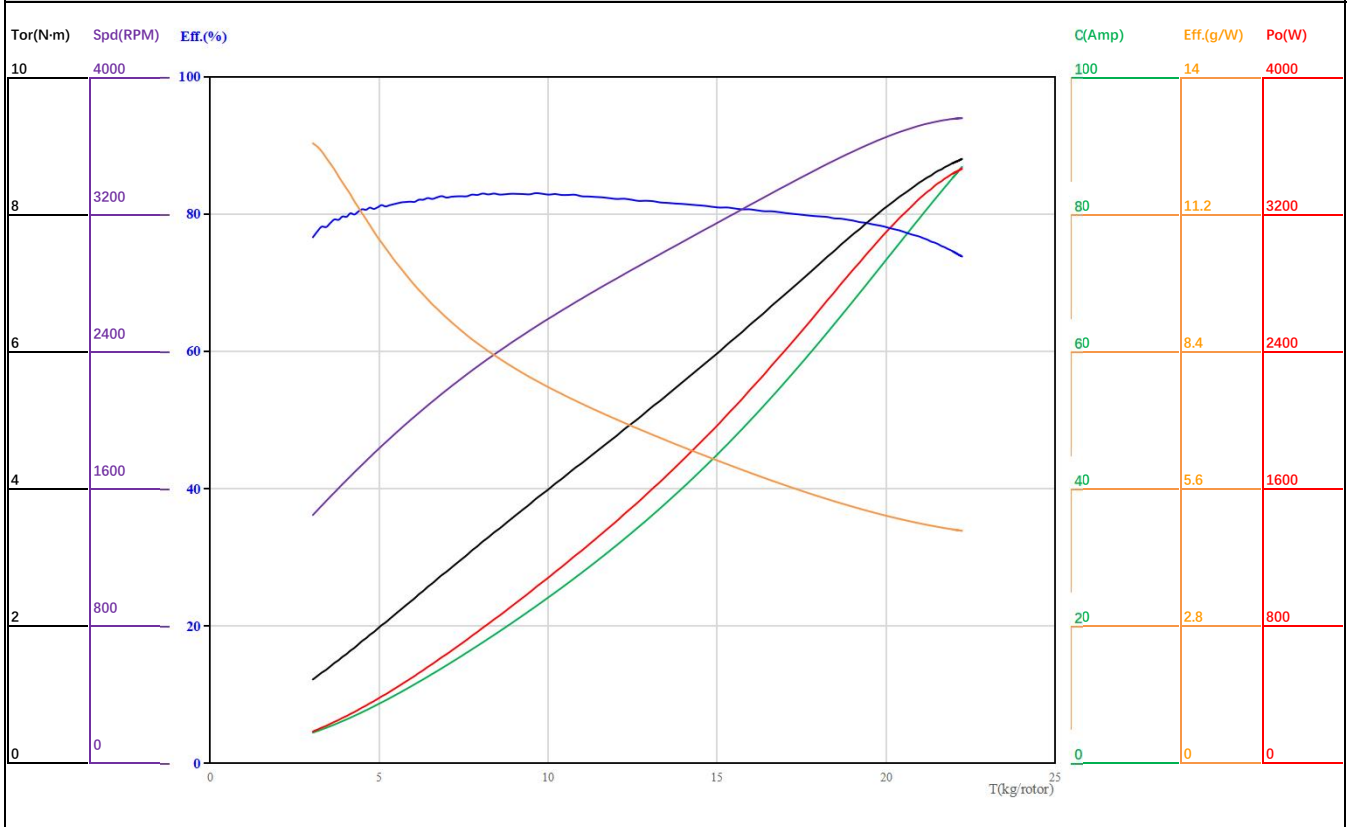
Propeller Specification

Model	MFP 34x11	Total weight	278 g*
Material of blades	Carbon fibre-reinforced nylon composite material	Single blade weight	89 g*

* Subject to the actual product.

MFP 34x11-Load Performance Parameters(54V)

Graph



Thrust Test Data

Voltage(V)	Propeller	Throttle(%)	Thrust(g)	Current(A)	Power Input(W)	Speed(RPM)	Efficiency(g/W)	Torque (N-m)	Power Output(W)	Temperature(°C)
54V (14S LiPo)	MFP 34x11	33%	3311	4.9	265.5	1501	12.5	1.32	207.5	/
		35%	3805	5.9	317.9	1602	12.0	1.50	251.6	
		37%	4274	6.9	373.1	1695	11.5	1.68	298.2	
		39%	4733	8.0	431.5	1783	11.0	1.87	349.1	
		42%	5433	9.8	528.7	1912	10.3	2.15	430.5	
		45%	6181	11.9	640.6	2041	9.7	2.46	525.7	
		48%	7001	14.3	770.9	2174	9.1	2.79	635.1	
		51%	7910	17.1	923.9	2311	8.6	3.16	764.7	
		54%	8915	20.4	1101.2	2450	8.1	3.56	913.3	
		57%	10015	24.2	1306.6	2590	7.7	3.99	1082.1	
		60%	11200	28.5	1541.8	2731	7.3	4.45	1272.6	
		63%	12454	33.5	1809.9	2872	6.9	4.94	1485.6	
		66%	13755	39.1	2113.2	3013	6.5	5.46	1722.6	
		69%	15077	45.3	2450.1	3156	6.2	6.00	1982.8	
		72%	16389	52.1	2817.1	3297	5.8	6.56	2264.7	
		75%	17657	59.2	3200.3	3430	5.5	7.11	2553.6	
		78%	18844	66.3	3580.8	3548	5.3	7.63	2834.7	
		81%	19912	72.8	3934.8	3641	5.1	8.07	3076.7	
		84%	20822	78.4	4237.3	3705	4.9	8.40	3258.8	
		87%	21537	82.7	4471.3	3740	4.8	8.63	3379.7	
		90%	22018	85.6	4624.7	3755	4.8	8.75	3440.4	
		100%	22238	86.8	4692.8	3758	4.7	8.80	3462.9	

*The above data was measured by HOBBYWING Laboratory at room temperature 25°C, at sea level, with varying throttle input. for reference only.

Dimension Figure

