

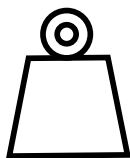
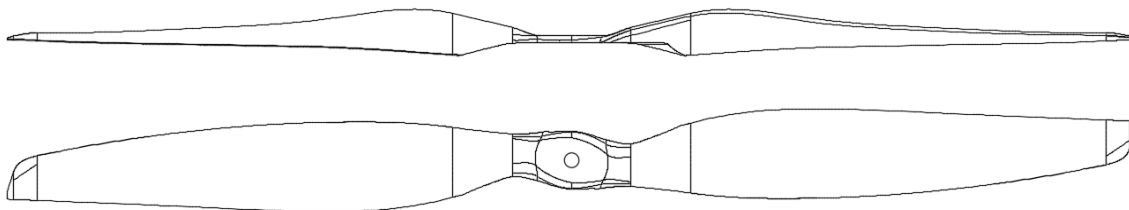


24x8.1 2B MC

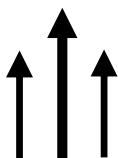
PN:2240812, 2240813

Product sheet

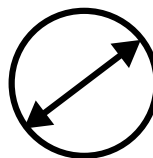
Rev.: 00
2024-04-30



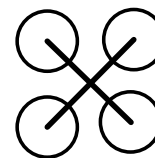
57 g
Mass



22.8 kgf
Max Thrust



24.0"
Diameter



Multicopter

Engine type:	Electric
Folding/Fixed	Fixed
Rotational direction:	Counter-clockwise and Clockwise available
Weight [g]:	57 ± 6.0%
Moment of inertia [kgm ²]:	1.77e-03
Center hole [mm]:	∅ 10
Max drilling diameter [mm]:	46
Mounting:	link to possible patterns
Limit RPM (0.7 Mach at blade tip)	7500
Working temperature [°C]	from -45°C to 65°C
Materials used:	carbon fiber, glass fiber, roving, polyurethane, epoxy
Tests performed:	balancing, visual Inspection, structural integrity (ATO)

Formula used to calculate moment of inertia: $I = \frac{1}{12} \cdot mass \cdot diameter^2$

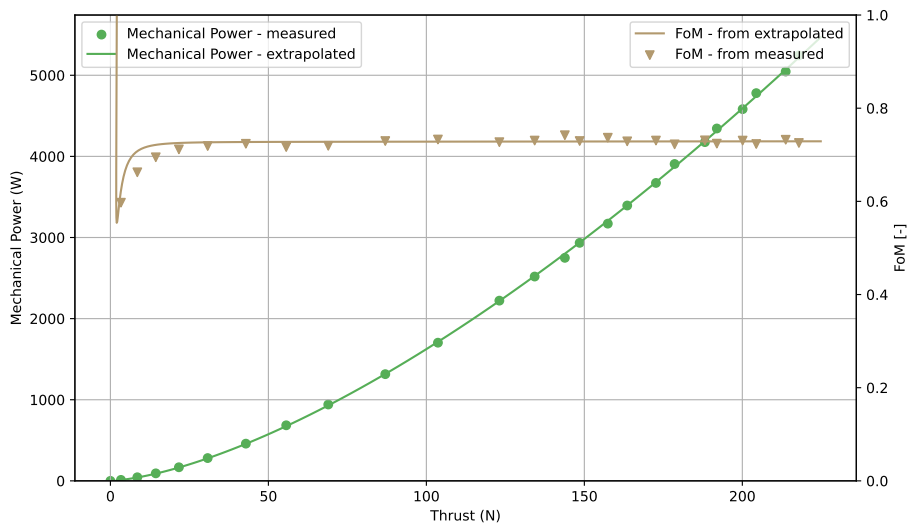
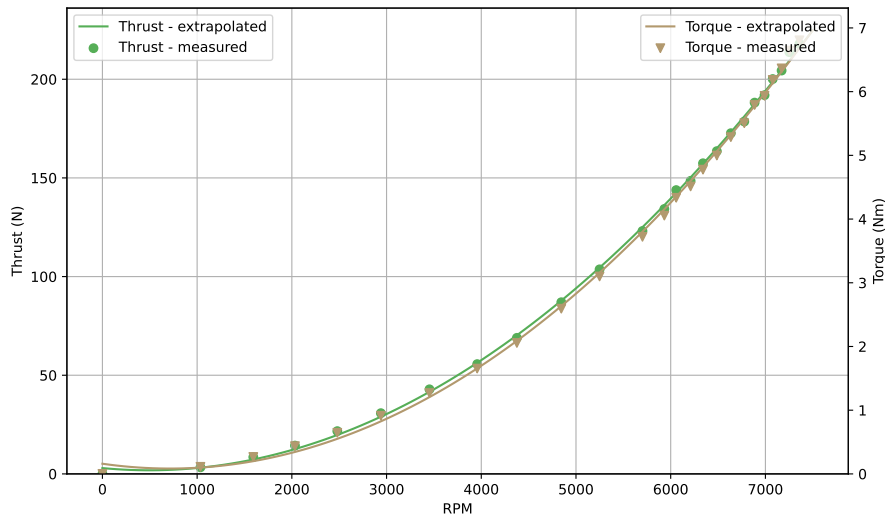


24x8.1 2B MC

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Measured data

Static test result



$$\text{Thrust (RPM)} = 4.54567e - 06 \cdot \text{RPM}^2 + -0.00451 \cdot \text{RPM} + 2.95605$$

$$\text{Torque (RPM)} = 1.49317e - 07 \cdot \text{RPM}^2 + -0.000212729 \cdot \text{RPM} + 0.15984$$

$$\text{Mechanical power (RPM)} = 1.91929e - 08 \cdot \text{RPM}^3 + -5.95356e - 05 \cdot \text{RPM}^2 + 0.11097 \cdot \text{RPM} + -30.24365$$

Formulas used to calculate FOM:

$$C_T = \frac{T}{\rho \cdot RPS^2 \cdot D^4}$$

$$C_P = \frac{P_{mech}}{\rho \cdot RPS^3 \cdot D^5}$$

$$FOM = \sqrt{\frac{2}{\pi}} \frac{C_T^{\frac{3}{2}}}{C_P}$$