

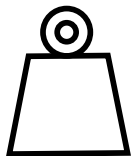
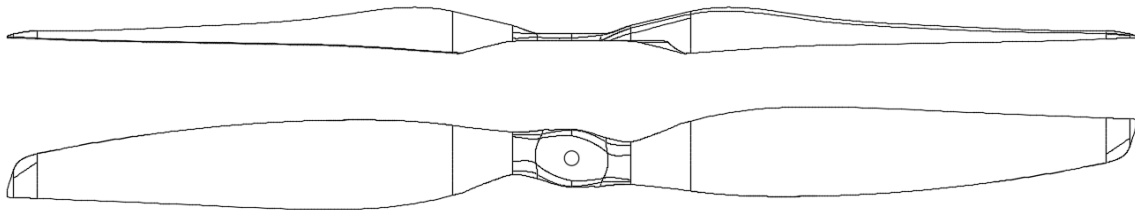


18x6 2B MC

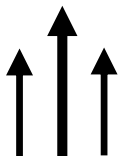
PN:2180600, 2180601

Product sheet

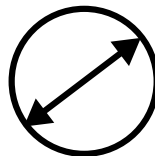
Rev.: 00
2024-04-30



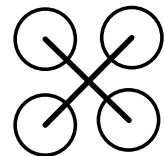
25 g
Mass



11.6 kgf
Max Thrust



18.0"
Diameter



Multicopter

Engine type:	Electric
Folding/Fixed	Fixed
Rotational direction:	Counter-clockwise and Clockwise available
Weight [g]:	25 ± 10.0%
Moment of inertia [kgm ²]:	4.35e-04
Center hole [mm]:	∅ 4
Max drilling diameter [mm]:	20
Mounting:	link to possible patterns
Limit RPM (0.7 Mach at blade tip)	10000
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: $I = \frac{1}{12} \cdot mass \cdot diameter^2$

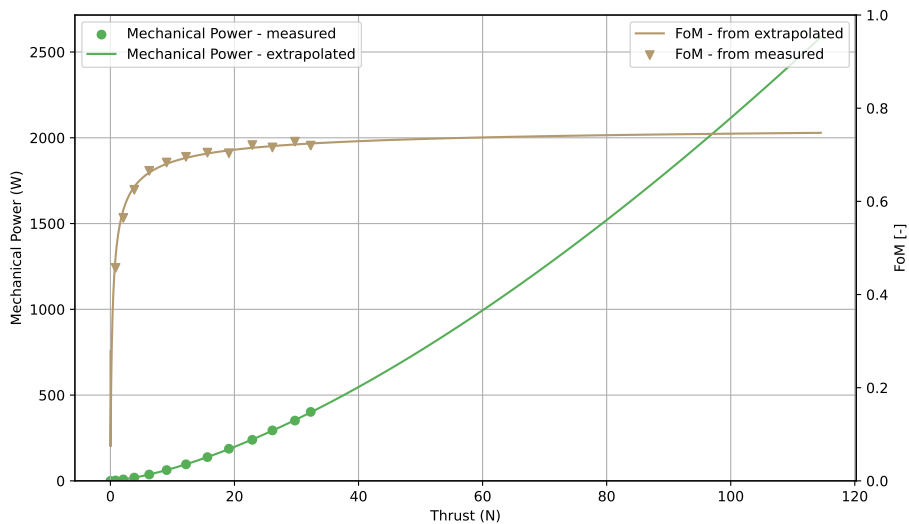
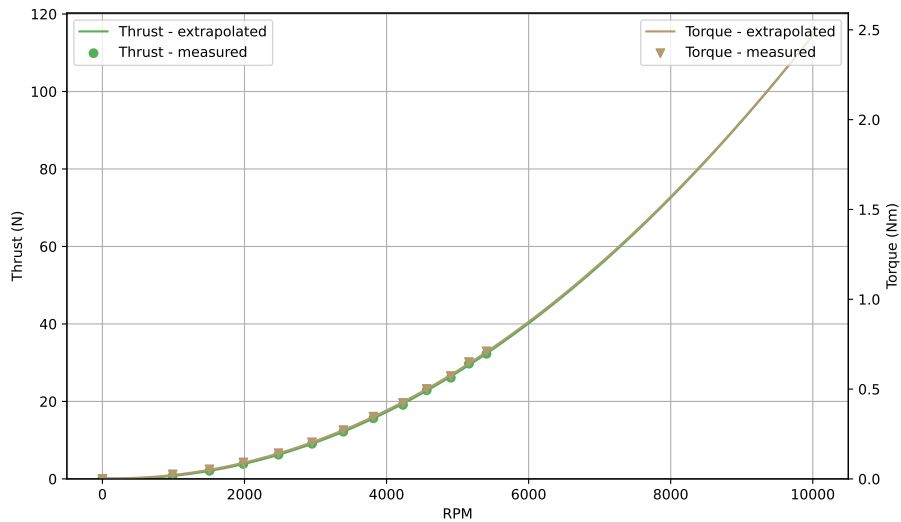


18x6 2B MC

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Measured data

Static test result



$$\begin{aligned} \text{Thrust (RPM)} &= 1.19183e - 06 \cdot \text{RPM}^2 + -0.000473772 \cdot \text{RPM} + 0.06986 \\ \text{Torque (RPM)} &= 2.53503e - 08 \cdot \text{RPM}^2 + -6.91793e - 06 \cdot \text{RPM} + 0.00382 \\ \text{Mechanical power (RPM)} &= 2.84311e - 09 \cdot \text{RPM}^3 + -2.12561e - 06 \cdot \text{RPM}^2 + 0.00282 \cdot \text{RPM} + -0.33419 \end{aligned}$$

Formulas used to calculate FOM:

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

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

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