

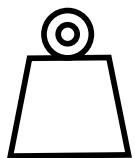
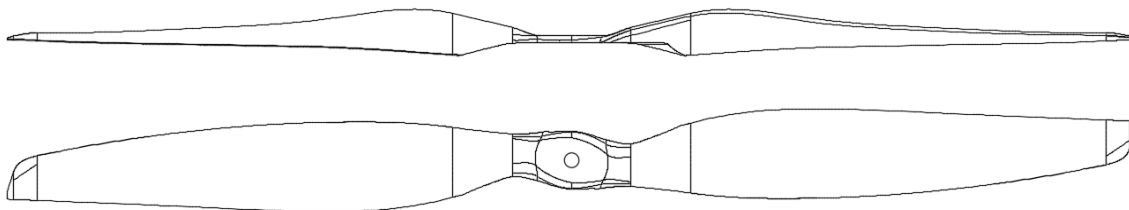


# 80x28 2B MC

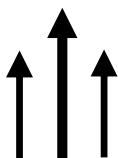
PN:28002800, 28002801

## Product sheet

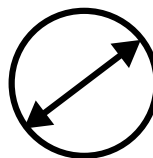
Rev.: 00  
2024-04-30



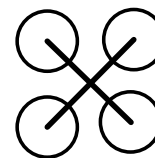
1530 g  
Mass



251.4 kgf  
Max Thrust



80.0"  
Diameter



Multicopter

Engine type:	Electric
Folding/Fixed	Fixed
Rotational direction:	Counter-clockwise and Clockwise available
Weight [g]:	1530 ± 5.0%
Moment of inertia [kgm <sup>2</sup> ]:	5.26e-01
Center hole [mm]:	∅ 12
Max drilling diameter [mm]:	87
Mounting:	link to possible patterns
Limit RPM (0.7 Mach at blade tip)	2200
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:  $I = \frac{1}{12} \cdot mass \cdot diameter^2$

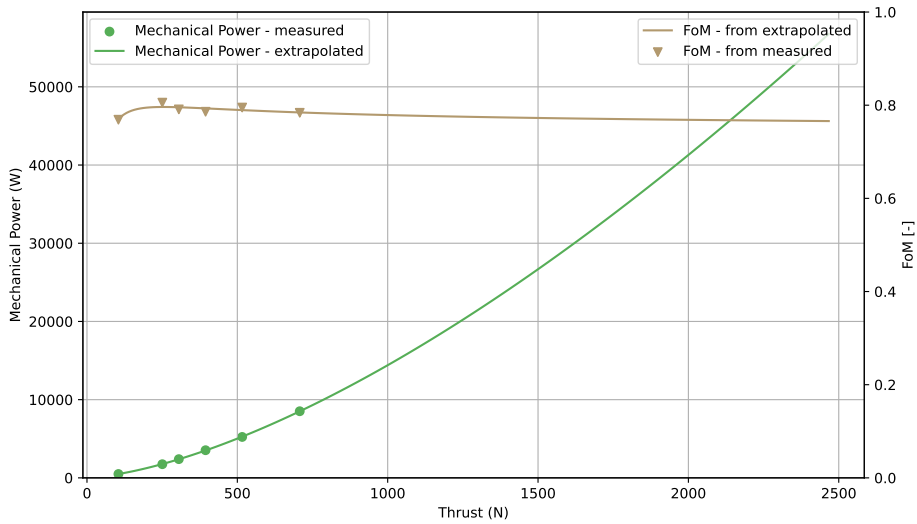
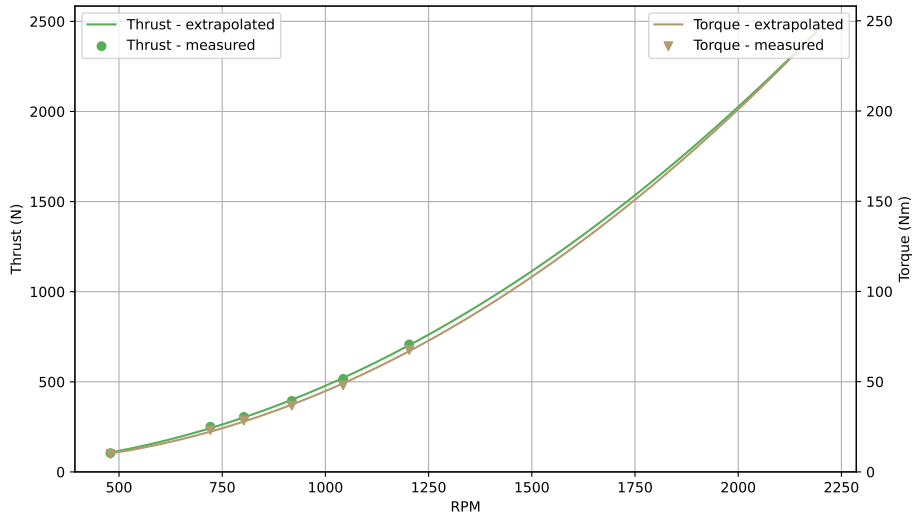


# 80x28 2B MC

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## Measured data

Static test result



$$\text{Thrust (RPM)} = 0.000549803 \cdot \text{RPM}^2 + -0.1021 \cdot \text{RPM} + 30.38152$$

$$\text{Torque (RPM)} = 5.90376e - 05 \cdot \text{RPM}^2 + -0.02097 \cdot \text{RPM} + 6.72877$$

$$\text{Mechanical power (RPM)} = 1.383e - 05 \cdot \text{RPM}^3 + -0.02122 \cdot \text{RPM}^2 + 15.61727 \cdot \text{RPM} + -3642.54026$$

Formulas used to calculate FOM:

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

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

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