

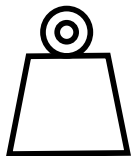
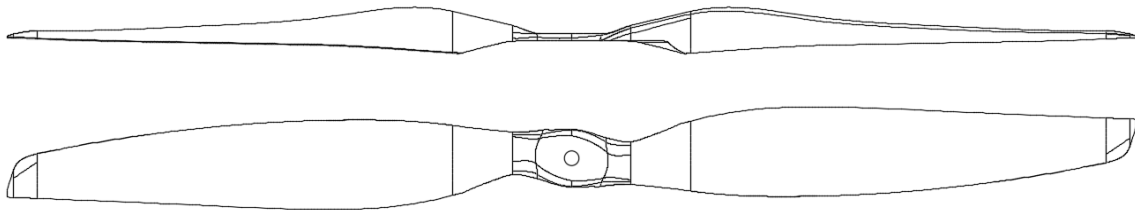


# 48x16.4 2B MC

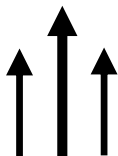
PN:24816400, 24816401

## Product sheet

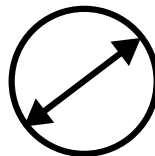
Rev.: 00  
2024-04-30



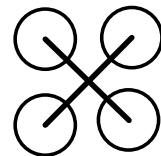
390 g  
Mass



91.6 kgf  
Max Thrust



48.0"  
Diameter



Multicopter

Engine type:	Electric
Folding/Fixed	Fixed
Rotational direction:	Counter-clockwise and Clockwise available
Weight [g]:	390 ± 5.0%
Moment of inertia [kgm <sup>2</sup> ]:	4.83e-02
Center hole [mm]:	∅ 10
Max drilling diameter [mm]:	51
Mounting:	link to possible patterns
Limit RPM (0.7 Mach at blade tip)	3700
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:  $I = \frac{1}{12} \cdot mass \cdot diameter^2$

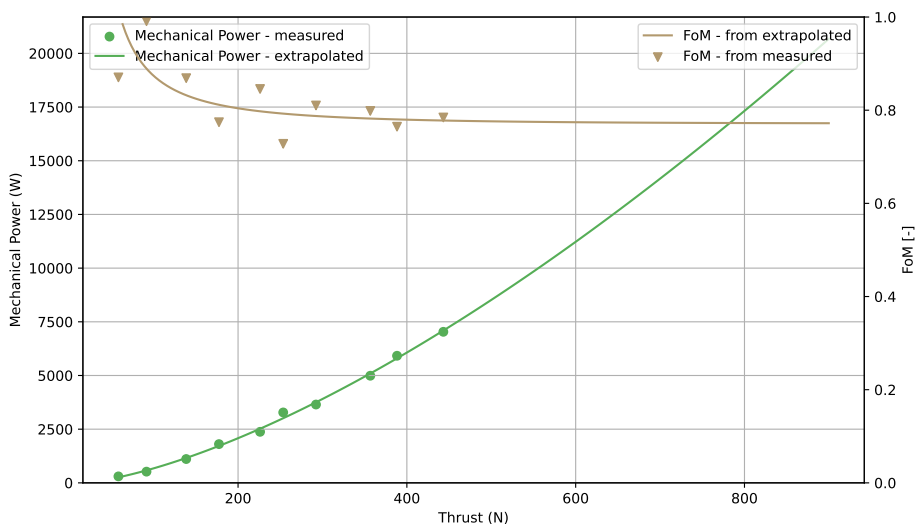
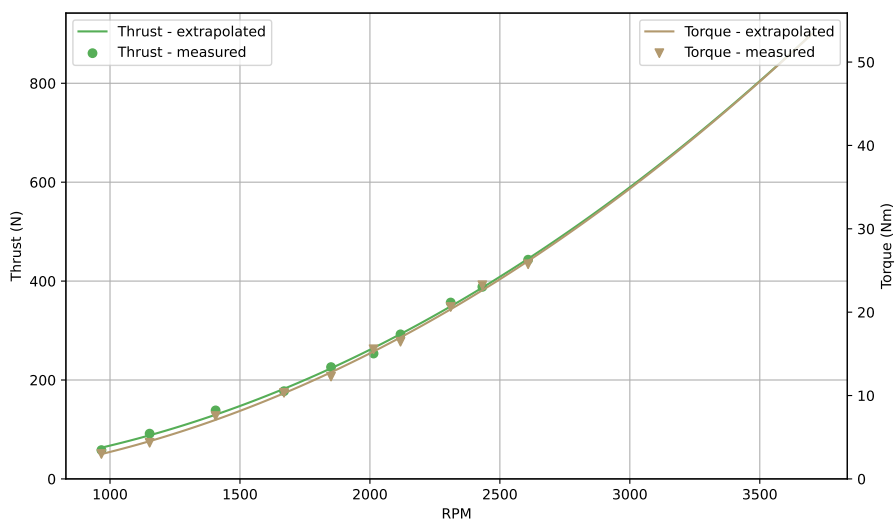


# 48x16.4 2B MC

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## Measured data

Static test result



$$\text{Thrust (RPM)} = 6.73129e - 05 \cdot \text{RPM}^2 + -0.00802 \cdot \text{RPM} + 8.03343$$

$$\text{Torque (RPM)} = 3.96359e - 06 \cdot \text{RPM}^2 + -6.54161e - 05 \cdot \text{RPM} + -0.66219$$

$$\text{Mechanical power (RPM)} = 3.14756e - 07 \cdot \text{RPM}^3 + 0.000533083 \cdot \text{RPM}^2 + -0.98812 \cdot \text{RPM} + 487.84836$$

Formulas used to calculate FOM:

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

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

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