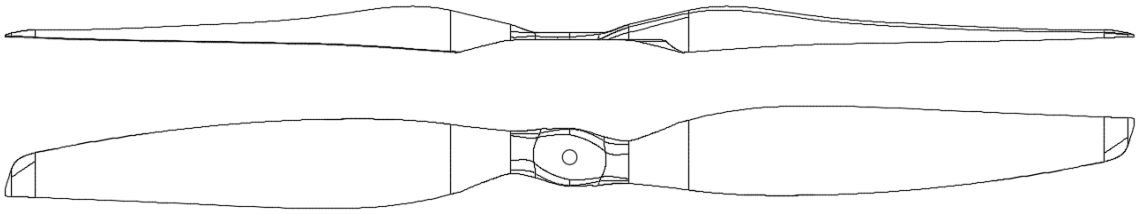
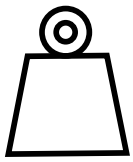
14x4.5 2B MC

PN:2140452, 2140453

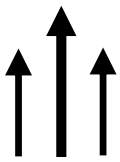
Product sheet

Rev.: 00
2024-04-30

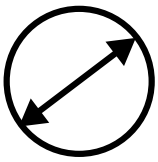




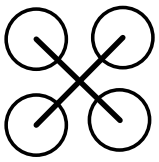
13.5 g
Mass



7.2 kgf
Max Thrust



14.0”
Diameter



Multicopter

Engine type:	Electric
Folding/Fixed	Fixed
Rotational direction:	Counter-clockwise and Clockwise available
Weight [g]:	13.5 $\pm$ 10.0%
Moment of inertia [kgm^2]:	1.42e-04
Center hole [mm]:	$\varnothing$ 4
Max drilling diameter [mm]:	15
Mounting:	link to possible patterns
Limit RPM (0.7 Mach at blade tip)	12800
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: $I = \frac{1}{12} \cdot mass \cdot diameter^2$

To get more information about manufacturing process or possibility to customize propeller reach out to info@mejzlik.eu

14x4.5 2B MC

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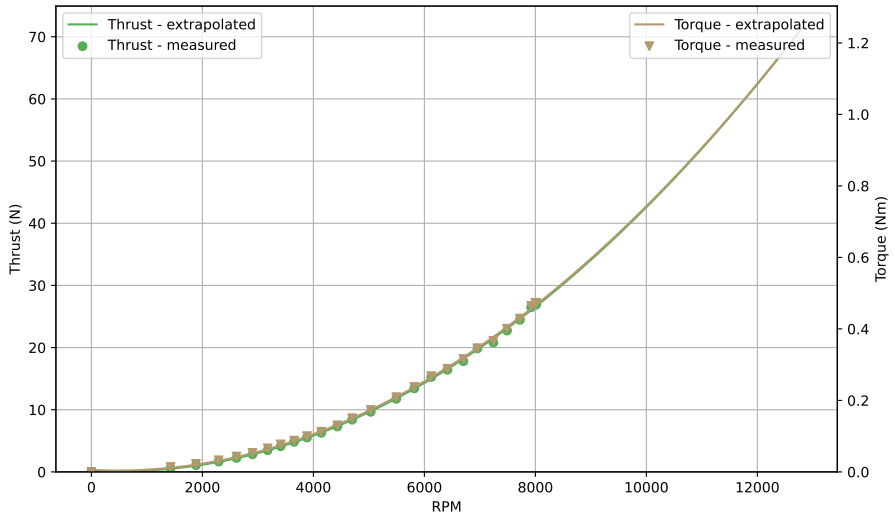
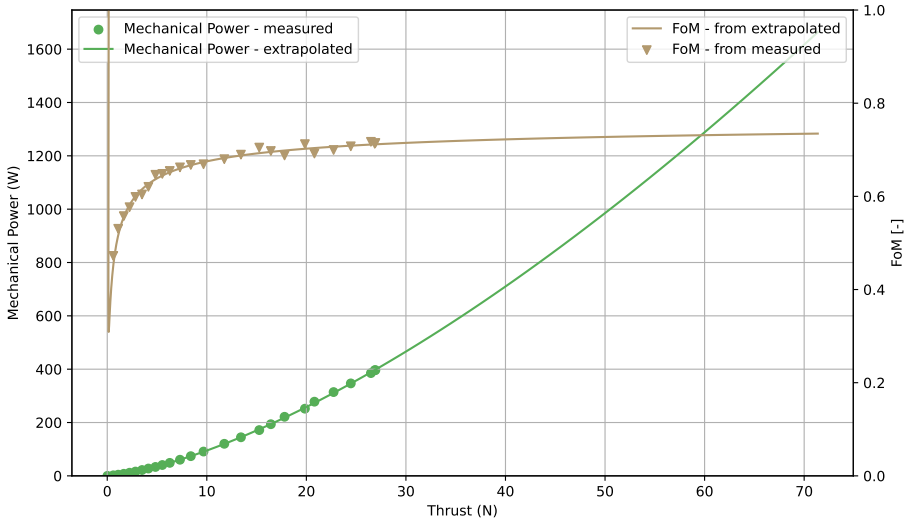
Measured data

Static test result





Thrust (RPM) $= 4.7216e-07 \cdot RPM^2 + -0.000487023 \cdot RPM + 0.24203$

Torque (RPM) $= 8.12359e-09 \cdot RPM^2 + -7.45565e-06 \cdot RPM + 0.00551$

Mechanical power (RPM) $= 9.51211e-10 \cdot RPM^3 + -1.93863e-06 \cdot RPM^2 + 0.00382 \cdot RPM + -1.25921$

Formulas used to calculate FOM:

$C_T = \frac{T}{\rho \cdot RPS^2 \cdot D^4}$ $C_P = \frac{P_{mech}}{\rho \cdot RPS^3 \cdot D^5}$ $FOM = \sqrt{\frac{2}{\pi}} \frac{C_T^{\frac{3}{2}}}{C_P}$