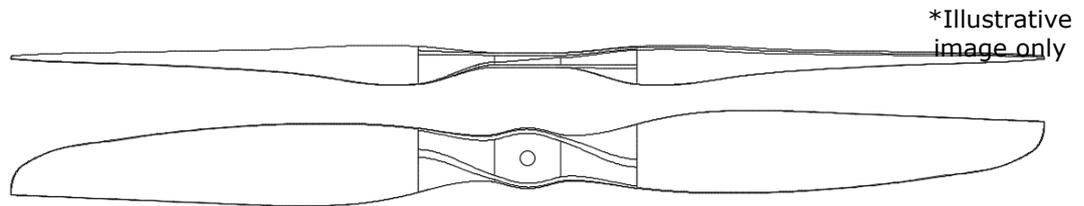


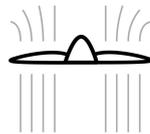
PROPELLER

80x28 2B MC 1.5

PN: 28002804, 28002805



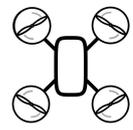
1739 g
Mass



244.8 kgf
Max Thrust



80.0"
Diameter



Multicopter

Engine/Motor type: Electric

Rotation direction: Counter-clockwise and Clockwise available (Direction Guide)

Mass [g]: $1739 \pm 10.0\%$

Moment of inertia [kgm^2]¹: $1.49\text{e-}01$

Core diameter [mm]: 92 (Drilling guide)

Limit hover RPM²: 2200

Limit forward speed [m/s]: 38

Working temperature [°C]: from -20°C to 60°C

Production method: Wet layup

Tests performed³: Static Performance Test, Overspin Test, Centrifugal Load Test, Tip Deflection Test

¹ Moment of inertia is measured.

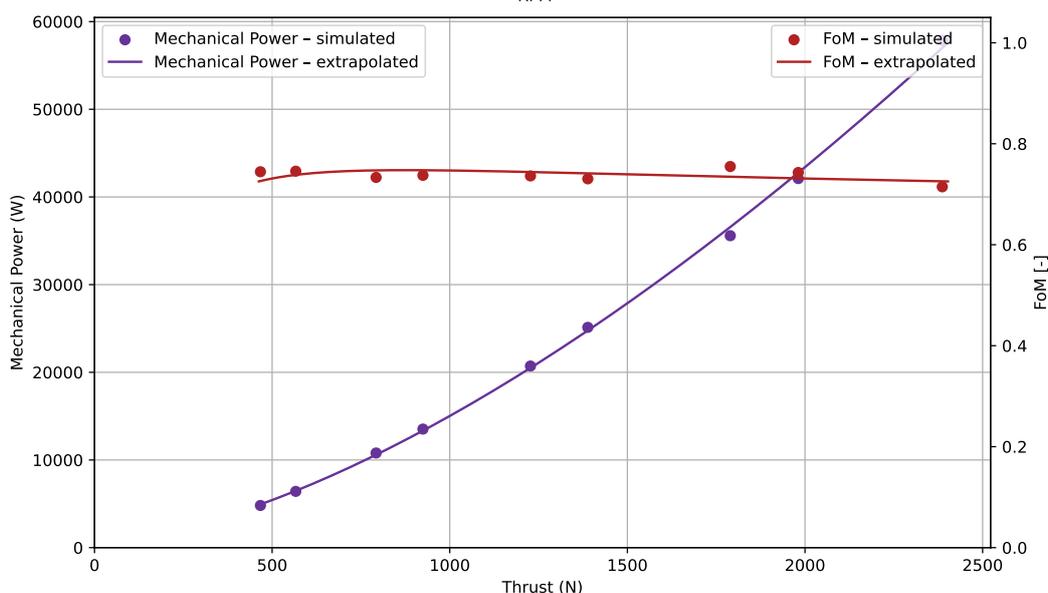
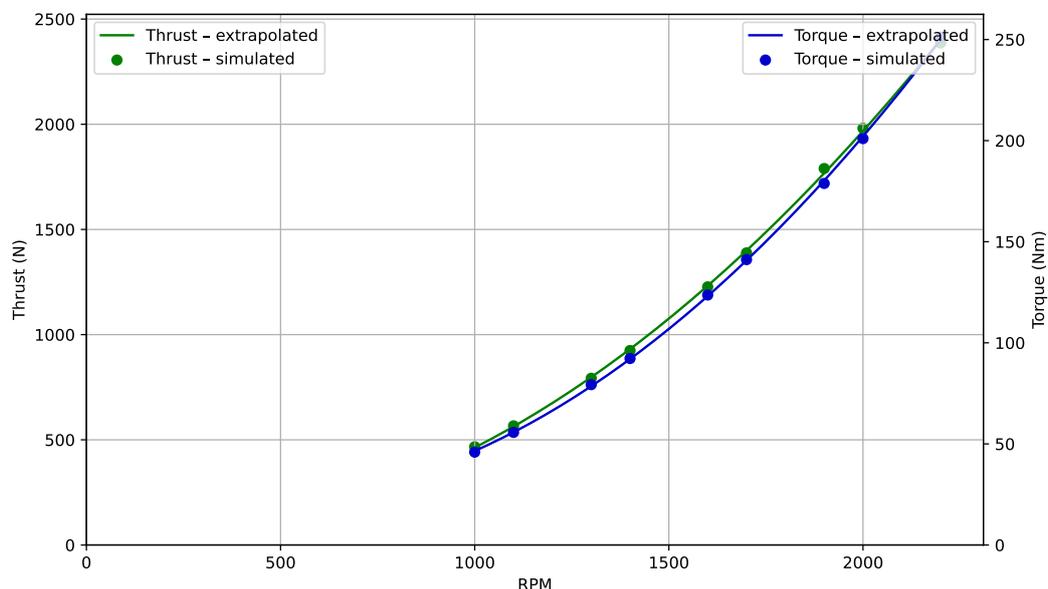
² RPM is limited by tip speed; forward speed reduces the limit.

³ Tests performed on a sample propeller.

For more information or custom propeller options, contact info@mejzlik.eu.
Operation manual: Propeller Maintenance and Repair Manual

Static Performance Data

Simulated data



$$\text{Thrust (RPM): } 5.564e - 04 \cdot \text{RPM}^2 + -1.641e - 01 \cdot \text{RPM} + 7.055e + 01$$

$$\text{Torque (RPM): } 6.975e - 05 \cdot \text{RPM}^2 + -5.366e - 02 \cdot \text{RPM} + 3.040e + 01$$

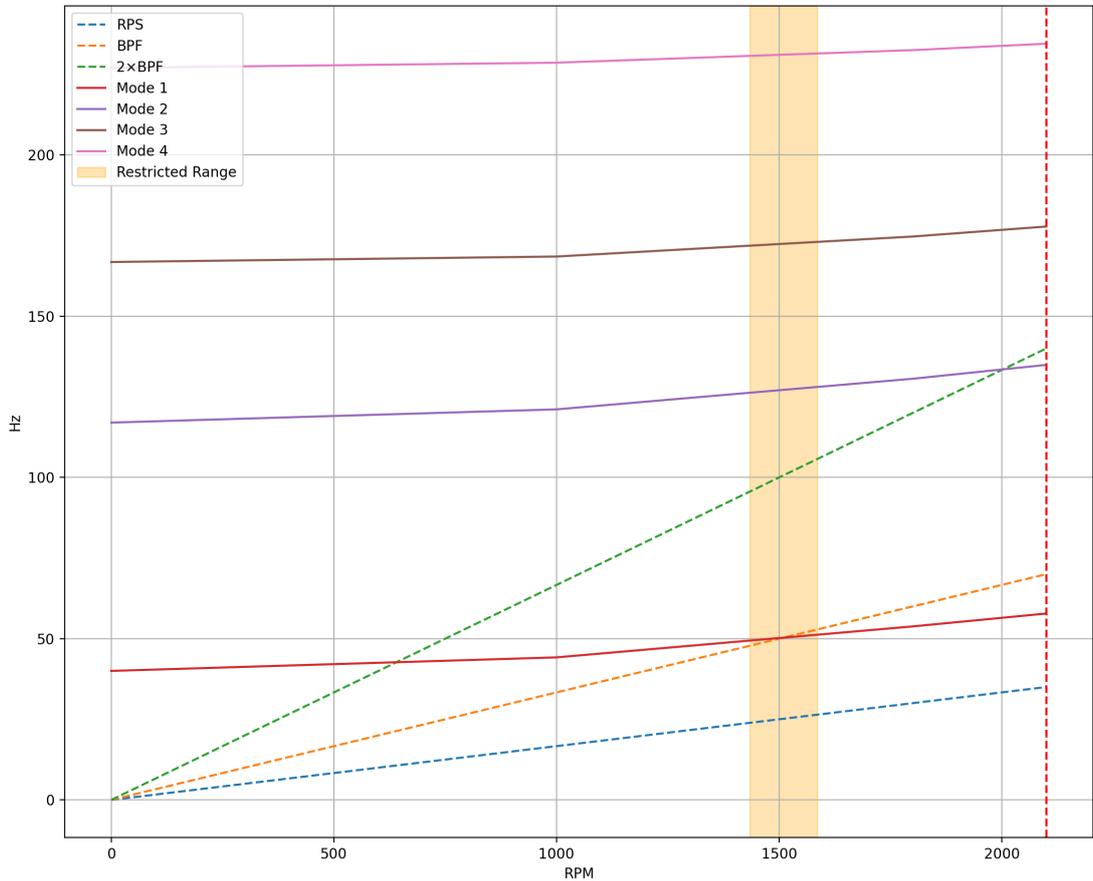
$$\text{Mechanical power (RPM): } \frac{2\pi \cdot \text{Torque}[\text{Nm}] \cdot \text{RPM}}{60}$$

Formulas used to calculate FOM :

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

Natural frequencies

Simulated data



| Intersection | Restricted RPM ranges ¹ |
|--------------|------------------------------------|
| RPS - Mode 1 | - |
| BPF - Mode 1 | 1430-1590 ² |

¹ Longterm use at these RPM should be avoided, as these RPM can lead to higher vibrations and possible damage to the propeller. Short-term use or crossing of this range to reach higher operational rpm is allowed.

² Data is simulated using Finite Element Analysis (FEA).