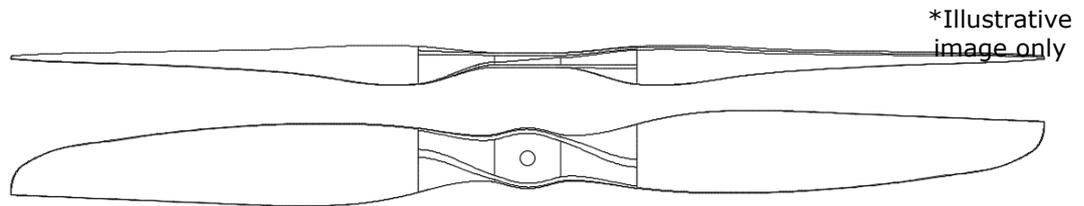


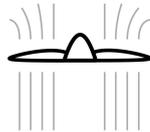
PROPELLER

42x15.4 2B MC

PN: 24201541, 24201540



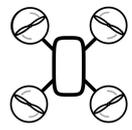
347 g
Mass



65.7 kgf
Max Thrust



42.0"
Diameter



Multicopter

Engine/Motor type: Electric

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

Mass [g]: $347 \pm 5.0\%$

Moment of inertia [kgm^2]¹: $1.48\text{e-}02$

Core diameter [mm]: 54 (Drilling guide)

Limit hover RPM²: 4200

Limit forward speed [m/s]: 20

Working temperature [°C]: from -20°C to 110°C

Production method: Prepreg

Tests performed³: Static Performance Test, Overspin Test, Endurance Test, Centrifugal Load Test

¹ Moment of inertia is measured.

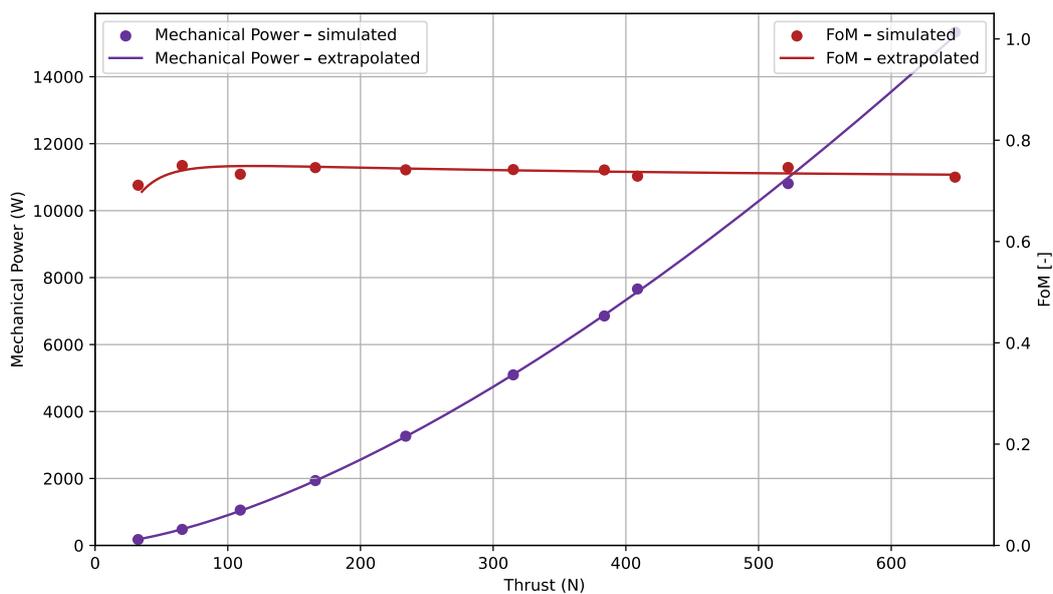
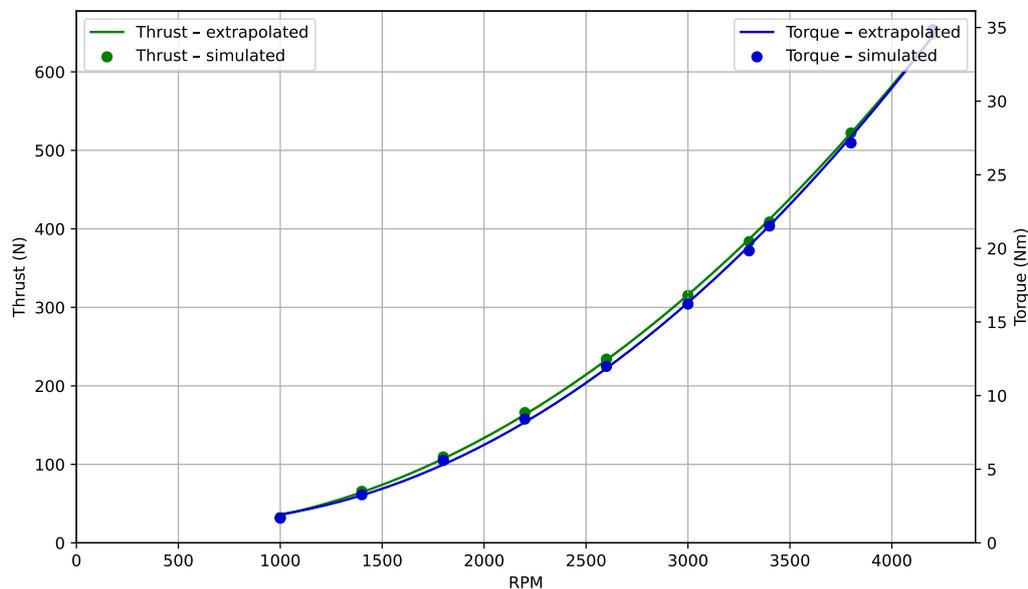
² RPM is limited by tip speed; forward speed reduces the limit.

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



$$\text{Thrust (RPM): } 4.191e-05 \cdot \text{RPM}^2 + -2.731e-02 \cdot \text{RPM} + 2.063e+01$$

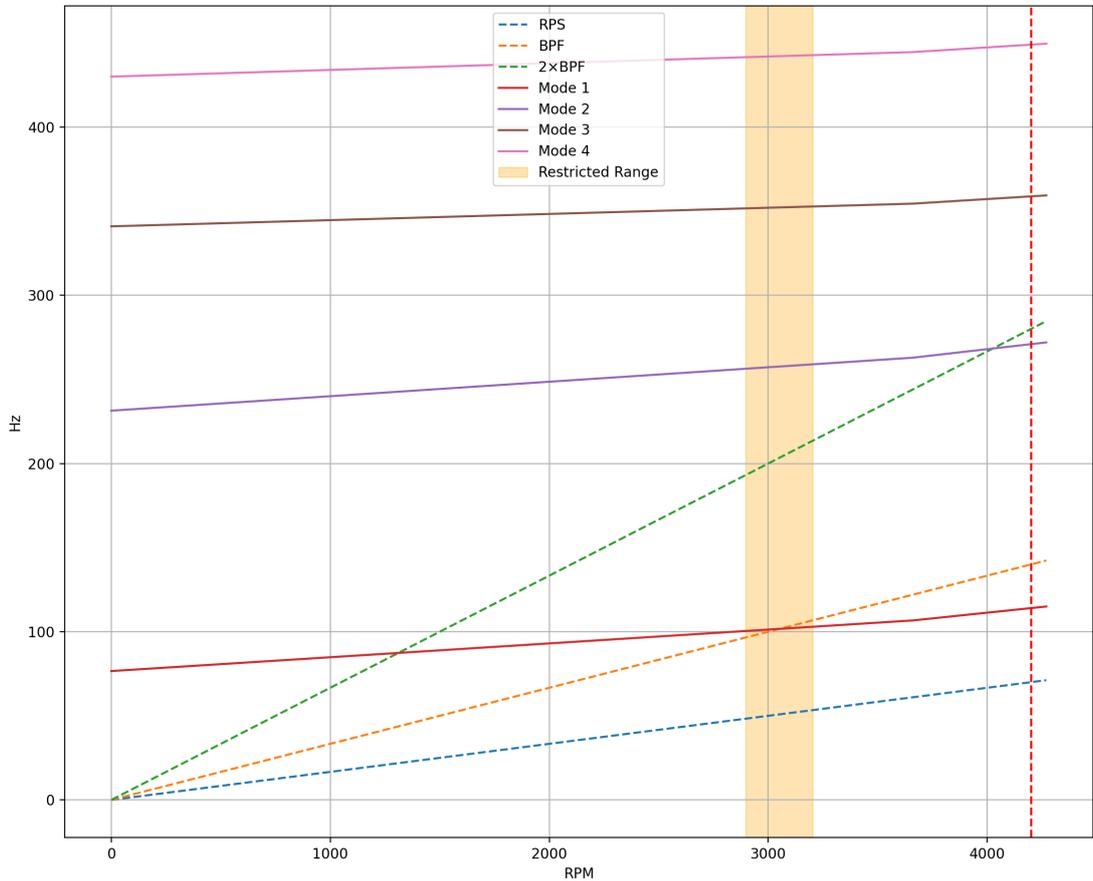
$$\text{Torque (RPM): } 2.464e-06 \cdot \text{RPM}^2 + -2.670e-03 \cdot \text{RPM} + 2.137e+00$$

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

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

Natural frequencies

Simulated data



Intersection	Restricted RPM ranges ¹
RPS - Mode 1	-
BPF - Mode 1	2890-3210 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).