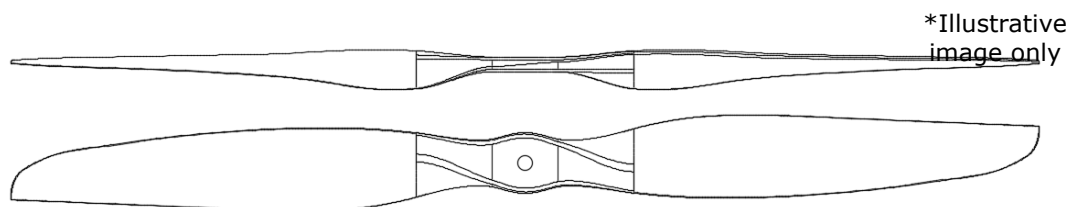


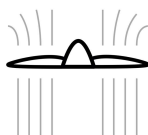
PROPELLER

40x14.8 2B VTOL stiffer

PN: 24001484, 24001485



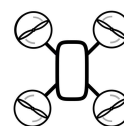
222 g
Mass



40.3 kgf
Max Thrust



40.0"
Diameter



Multicopter

Engine/Motor type: Electric

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

Mass [g]: $222 \pm 5.0\%$

Moment of inertia [kgm^2]¹: $5.40\text{e-}03$

Core diameter [mm]: 42 (Drilling guide)

Limit hover RPM²: 3650

Limit forward speed [m/s]: 30

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

Production method: Prepreg

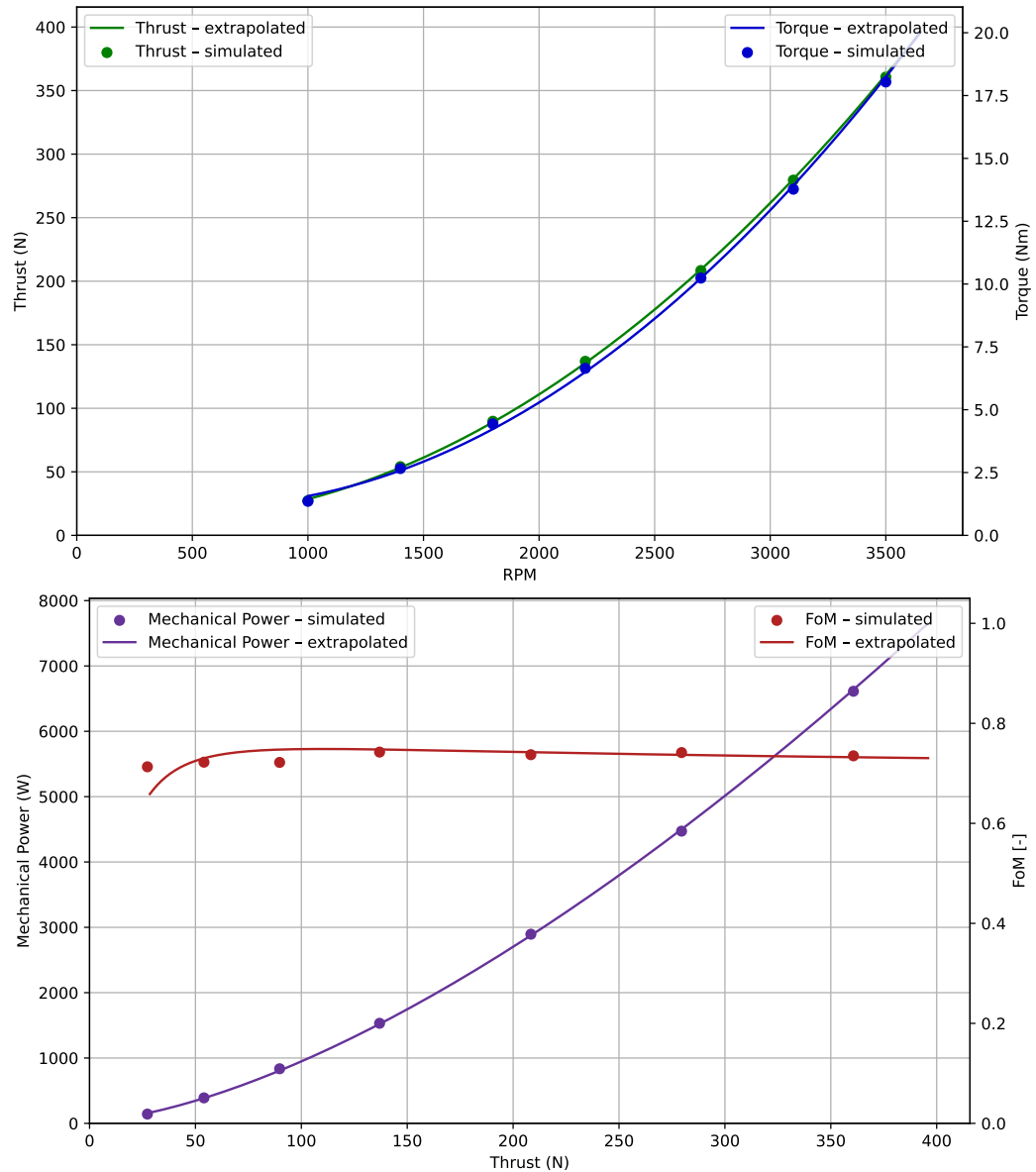
¹ Moment of inertia is measured.

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

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

Static Performance Data

Simulated data



$$\text{Thrust (RPM): } 3.407e-05 \cdot RPM^2 + -1.975e-02 \cdot RPM + 1.417e+01$$

$$\text{Torque (RPM): } 1.965e-06 \cdot RPM^2 + -2.170e-03 \cdot RPM + 1.770e+00$$

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

Formulas used to
calculate FOM

:

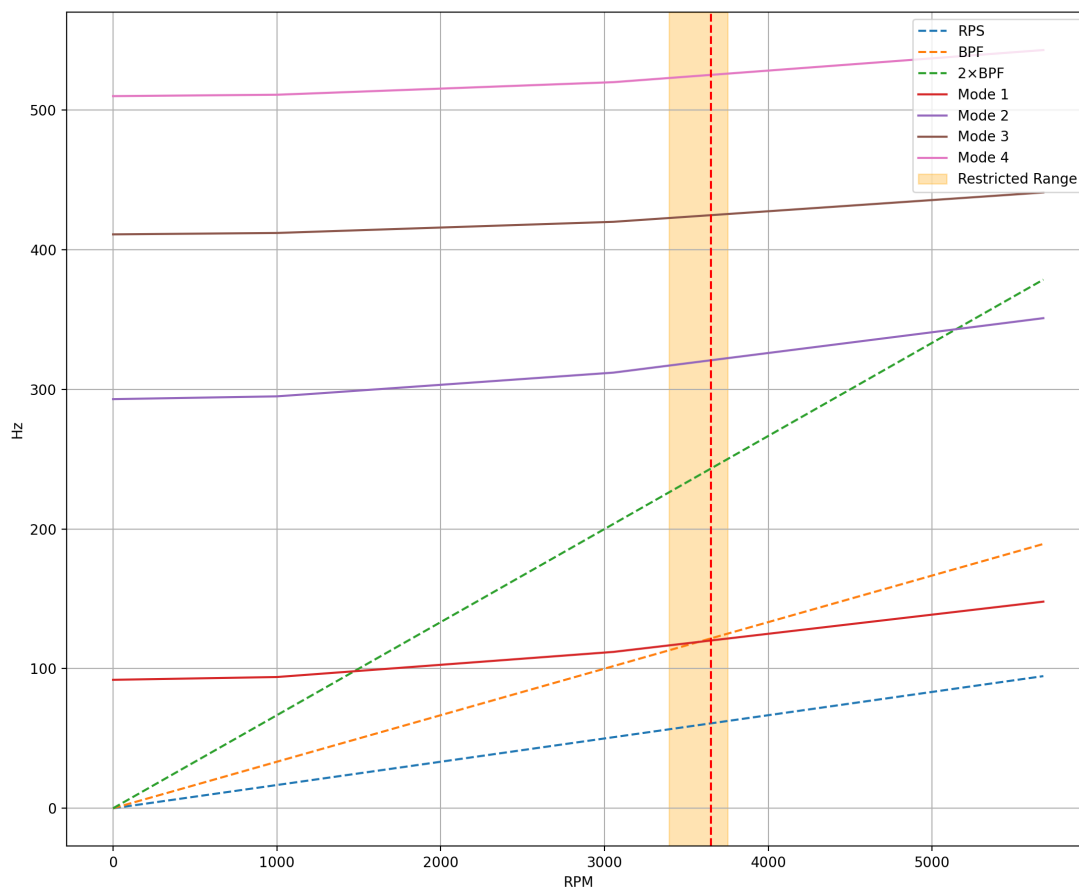
$$C_T = \frac{T}{\rho RPS^2 D^4}$$

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

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

Natural frequencies

Simulated data



Intersection	Restricted RPM ranges ¹
RPS - Mode 1	-
BPF - Mode 1	3390-3760 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).