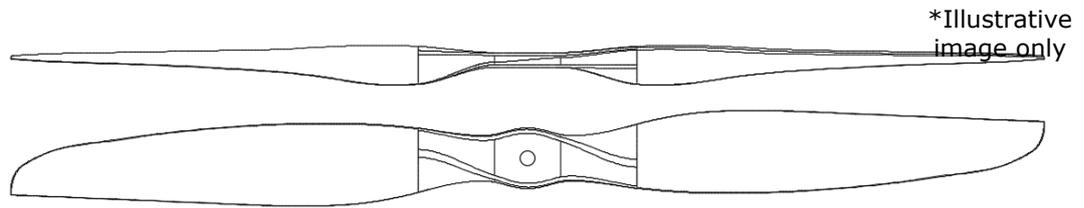


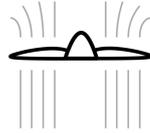
PROPELLER

28x10.1 2B VTOL

PN: 22801012, 22801011



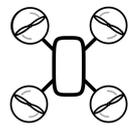
104 g
Mass



30.8 kgf
Max Thrust



28.0"
Diameter



Multicopter

Engine/Motor type: Electric

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

Mass [g]: $104 \pm 4.0\%$

Moment of inertia [kgm^2]¹: $2.35\text{e-}03$

Core diameter [mm]: 30 (Drilling guide)

Limit hover RPM²: 6400

Limit forward speed [m/s]: 30

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

Production method: Prepreg

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

¹ Moment of inertia is measured.

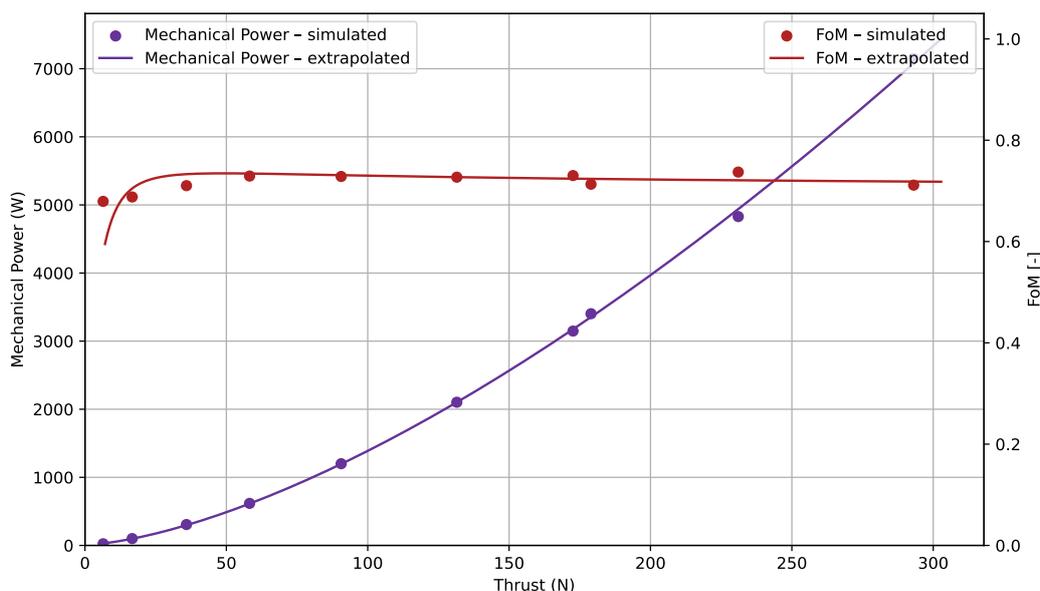
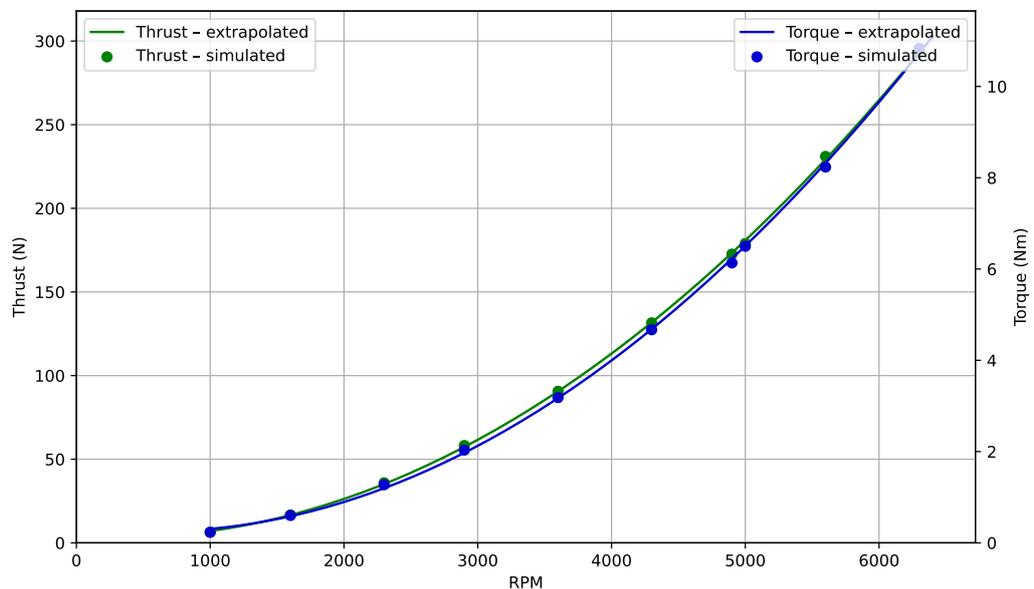
² RPM is limited by tip speed; forward speed reduces the limit.

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



$$\text{Thrust (RPM): } 8.086e - 06 \cdot RPM^2 + -5.080e - 03 \cdot RPM + 4.064e + 00$$

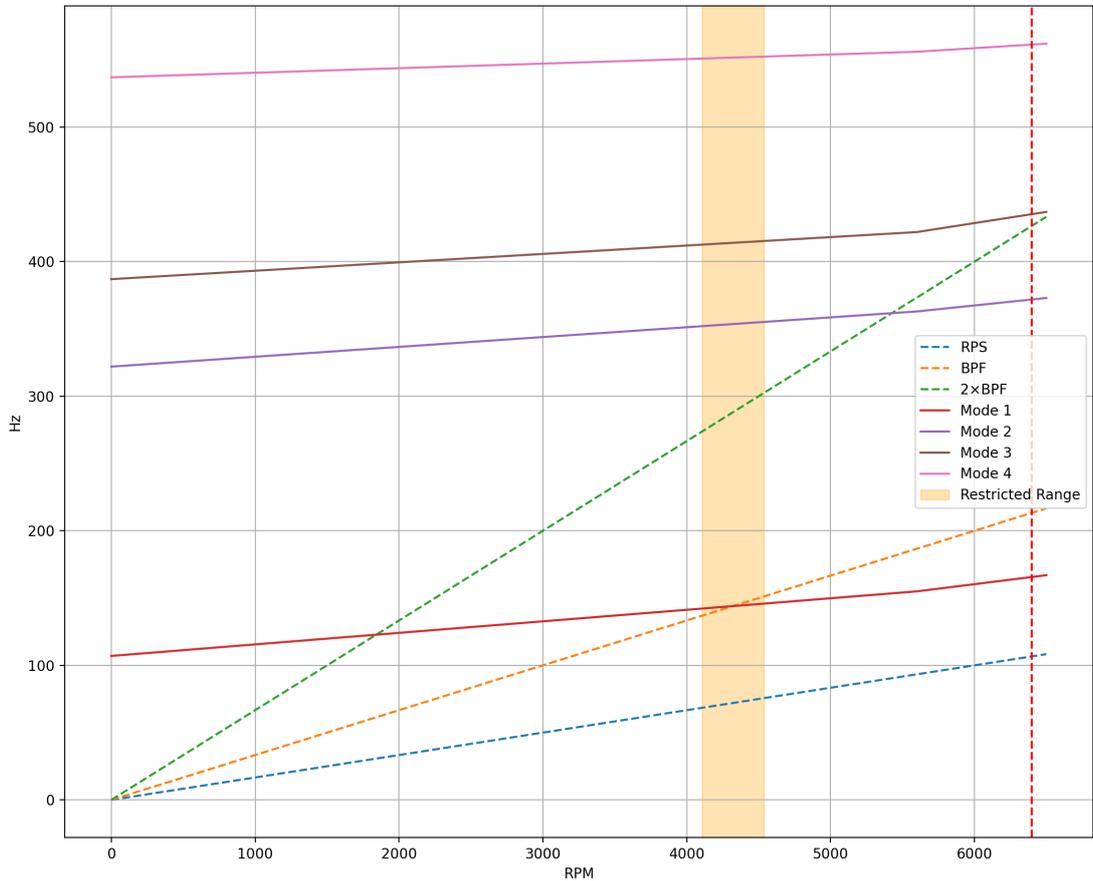
$$\text{Torque (RPM): } 3.201e - 07 \cdot RPM^2 + -3.706e - 04 \cdot RPM + 3.564e - 01$$

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

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

Natural frequencies

Simulated data



Intersection	Restricted RPM ranges ¹
RPS - Mode 1	-
BPF - Mode 1	4100-4540 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).