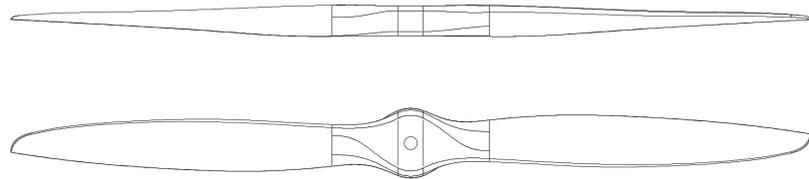


# PROPELLER

## 40x34.3 2B GAS

PN: 24003431



\*Illustrative image only



620 g  
Mass



40.0"  
Diameter



34.3"  
Pitch



Fixed wing

Engine/Motor type: Gas

Rotation direction: Clockwise (Direction Guide)

Mass [g]:  $620 \pm 10.0\%$

Moment of inertia [ $\text{kgm}^2$ ]<sup>1</sup>:  $1.06\text{e-}02$

Core diameter [mm]: 70 (Drilling guide)

Limit RPM<sup>2</sup>: 4500

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

Production method: Wet layup

Tests performed<sup>3</sup>: Static Performance Test, Overspin Test, Centrifugal Load Test

<sup>1</sup> Moment of inertia is measured.

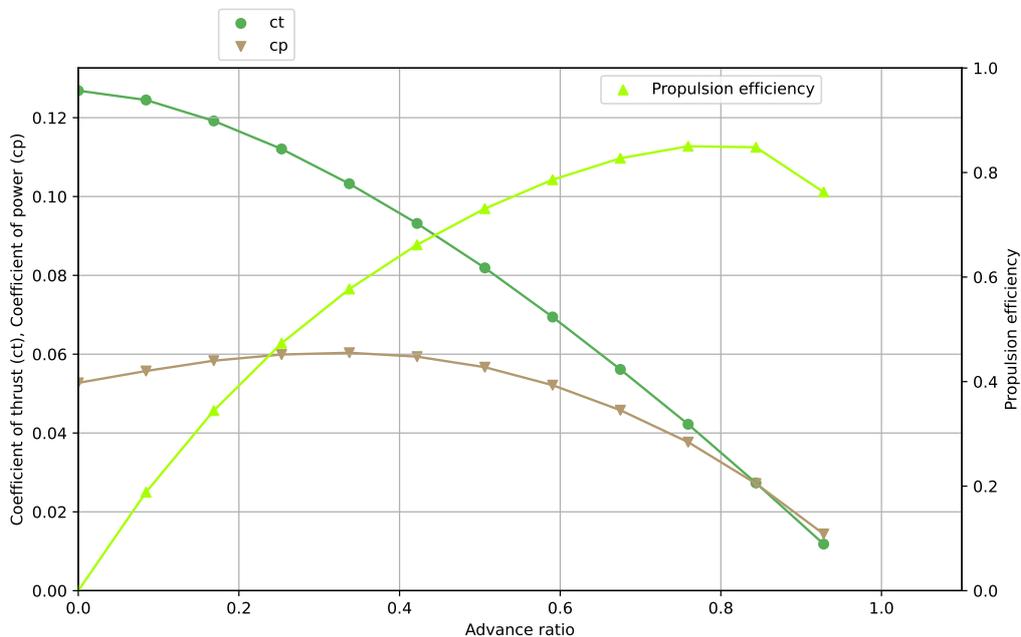
<sup>2</sup> RPM is limited by tip speed; forward speed reduces the limit.

<sup>3</sup> Tests performed on a sample propeller.

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

# Dynamic Performance Data

Simulated data - at 3500 RPM



v_inf	Ct	Cp	Propulsion efficiency	Advance ratio
0.0	0.1269	0.0527	0.0	0.0
5.0	0.1245	0.0557	0.1884	0.0844
10.0	0.1192	0.0584	0.3445	0.1687
15.0	0.1121	0.0599	0.4734	0.2531
20.0	0.1032	0.0604	0.577	0.3375
25.0	0.0932	0.0594	0.6618	0.4218
30.0	0.0819	0.0567	0.7309	0.5062
35.0	0.0694	0.0521	0.7862	0.5906
40.0	0.0561	0.0458	0.8272	0.6749
45.0	0.0422	0.0377	0.8502	0.7593
50.0	0.0273	0.0272	0.8483	0.8436
55.0	0.0118	0.0144	0.7625	0.928

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

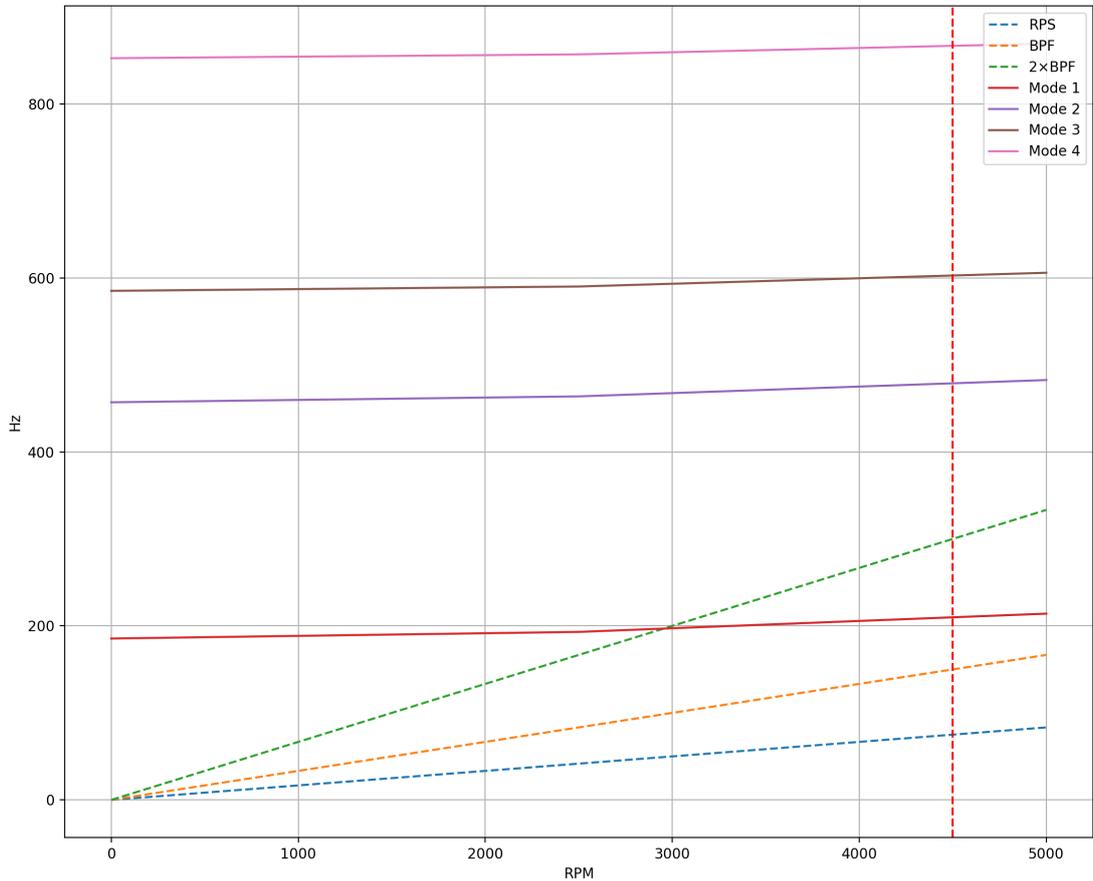
$$C_P = \frac{P_{mech}}{\rho RPS^3 D^5}$$

$$\eta = \frac{C_T \cdot J}{C_P}$$

$$J = \frac{v_{inf}}{n \cdot D}$$

# Natural frequencies

Simulated data



Intersection	Restricted RPM ranges <sup>1</sup>
RPS - Mode 1	-
BPF - Mode 1	-

<sup>1</sup> 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.

<sup>2</sup> Data is simulated using Finite Element Analysis (FEA).