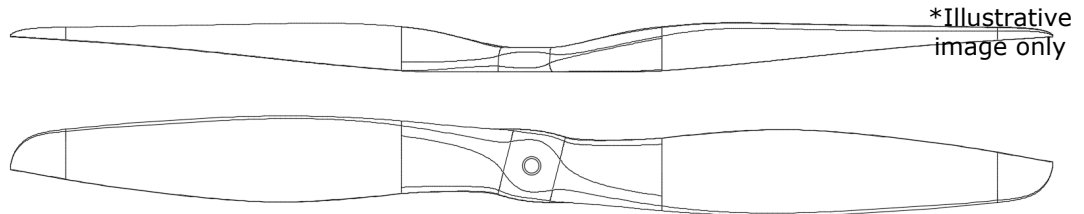


# PROPELLER

## 22x12 2B E W

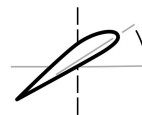
PN: 422124



114 g  
Mass



22.0"  
Diameter



12.0"  
Pitch



Fixed wing

Engine/Motor type: Electric

Rotation direction: Counter-clockwise (Direction Guide)

Mass [g]:  $114 \pm 10.0\%$

Moment of inertia [ $\text{kgm}^2$ ]<sup>1</sup>:  $2.97\text{e-}03$

Core diameter [mm]: 30 (Drilling guide)

Limit RPM<sup>2</sup>: 8200

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

Production method: Wet layup

<sup>1</sup> Moment of inertia is only an estimation:  $I = \frac{1}{24} \cdot \text{mass} \cdot \text{diameter}^2 \cdot n^{\circ} \text{ of blades}$

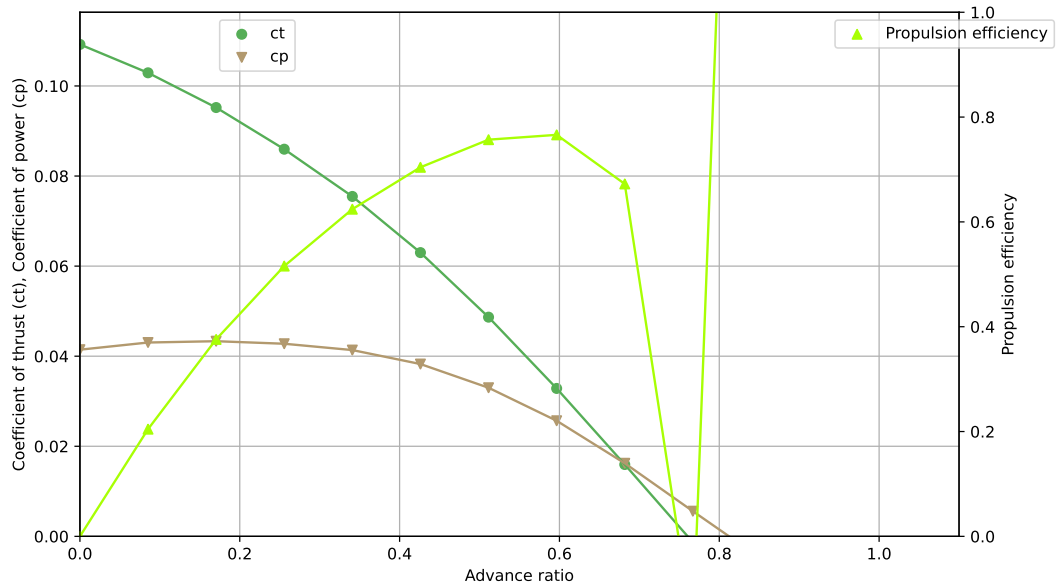
<sup>2</sup> RPM is limited by tip speed; forward speed reduces the limit.

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 6300 RPM



| v_inf | Ct      | Cp      | Propulsion efficiency | Advance ratio |
|-------|---------|---------|-----------------------|---------------|
| 0.0   | 0.1092  | 0.0414  | 0.0                   | 0.0           |
| 5.0   | 0.1029  | 0.043   | 0.2045                | 0.0852        |
| 10.0  | 0.0952  | 0.0433  | 0.3759                | 0.1704        |
| 15.0  | 0.086   | 0.0428  | 0.5157                | 0.2556        |
| 20.0  | 0.0755  | 0.0414  | 0.6242                | 0.3409        |
| 25.0  | 0.063   | 0.0383  | 0.7042                | 0.4261        |
| 30.0  | 0.0487  | 0.033   | 0.7569                | 0.5113        |
| 35.0  | 0.0328  | 0.0257  | 0.7661                | 0.5965        |
| 40.0  | 0.0159  | 0.0162  | 0.6724                | 0.6817        |
| 45.0  | -0.0013 | 0.0056  | -0.1811               | 0.7669        |
| 50.0  | -0.0185 | -0.0049 | 3.2219                | 0.8522        |
| 55.0  | -0.0335 | -0.0114 | 2.7682                | 0.9374        |

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

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

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

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