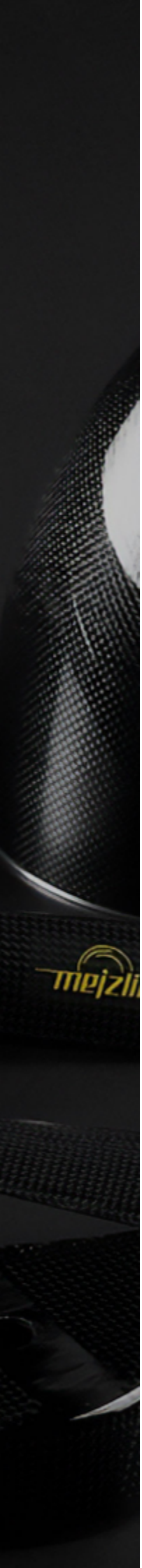
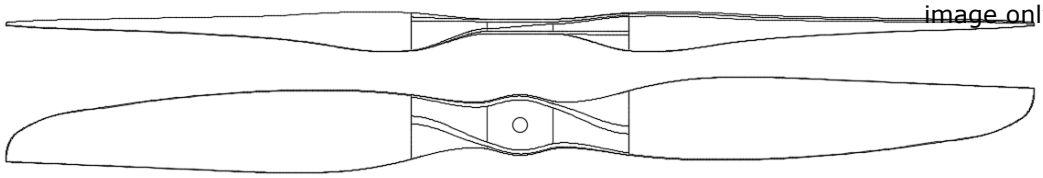


PROPELLER
30x11 2B VTOL

PN: 23000115, 23000116



*Illustrative image only

123 g	34.7 kgf	30.0”	Multicopter
Mass	Max Thrust	Diameter	

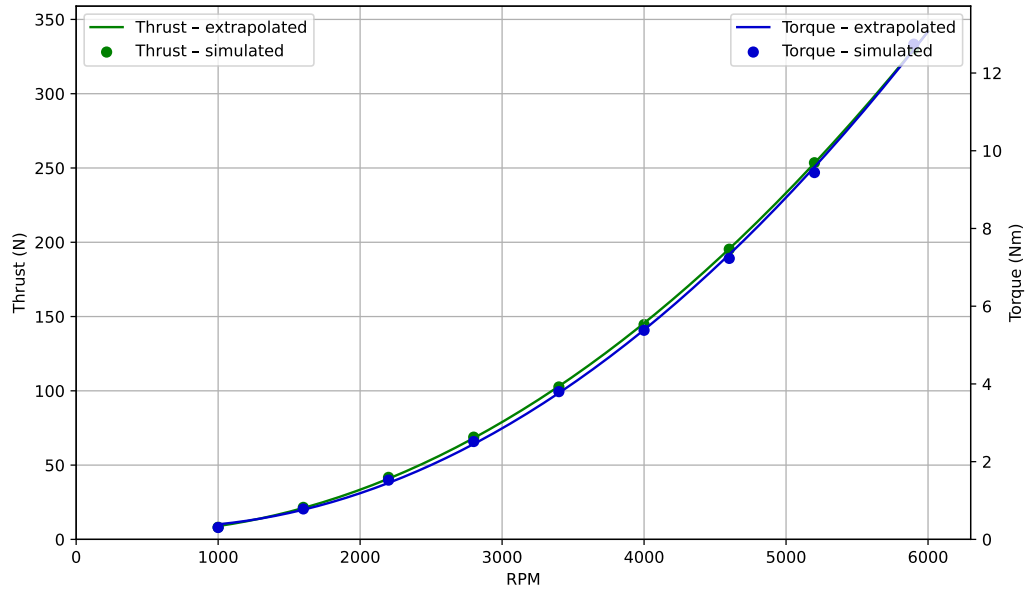
Engine/Motor type:	Electric
Rotation direction:	Counter-clockwise and Clockwise available (Direction Guide)
Mass [g]:	123 ± 5.0%
Moment of inertia [kgm^2][1]:	2.92e-03
Core diameter [mm]:	35 (Drilling guide)
Limit hover RPM[2]:	6000
Limit forward speed [m/s]:	30
Working temperature [°C]:	from -20°C to 110°C
Production method:	Prepreg
Tests performed[3]:	Static Performance Test, Overspin Test, Endurance Test, Centrifugal Load Test, Tip Deflection Test

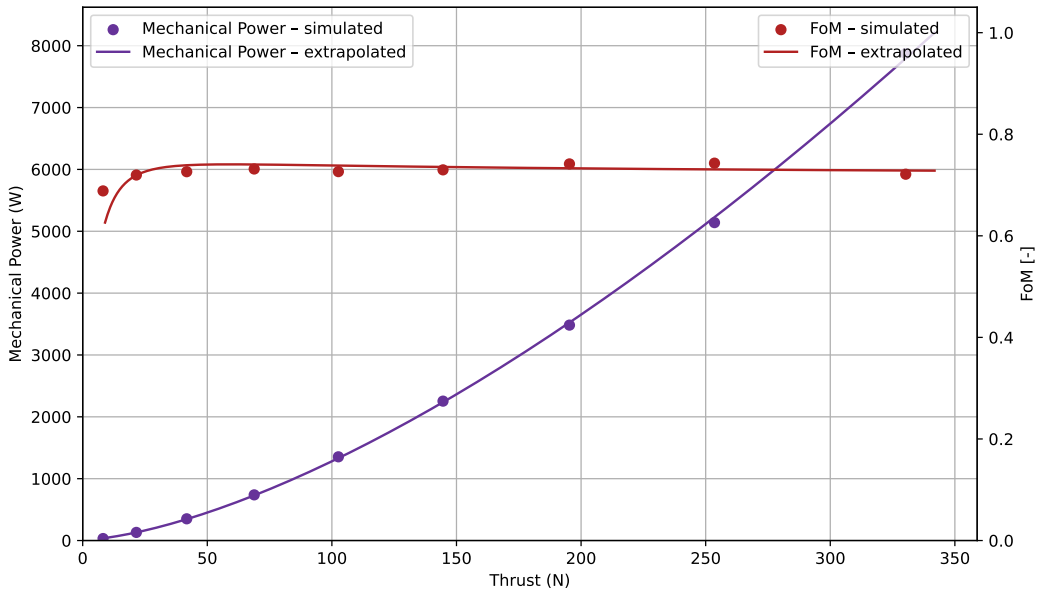
1 Moment of inertia is measured.
2 RPM is limited by tip speed; forward speed reduces the limit.
3 Tests performed on a sample propeller.

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

Static Performance Data

Simulated data





Thrust (RPM): $1.053e-05 \cdot RPM^2 + -7.100e-03 \cdot RPM + 5.540e+00$

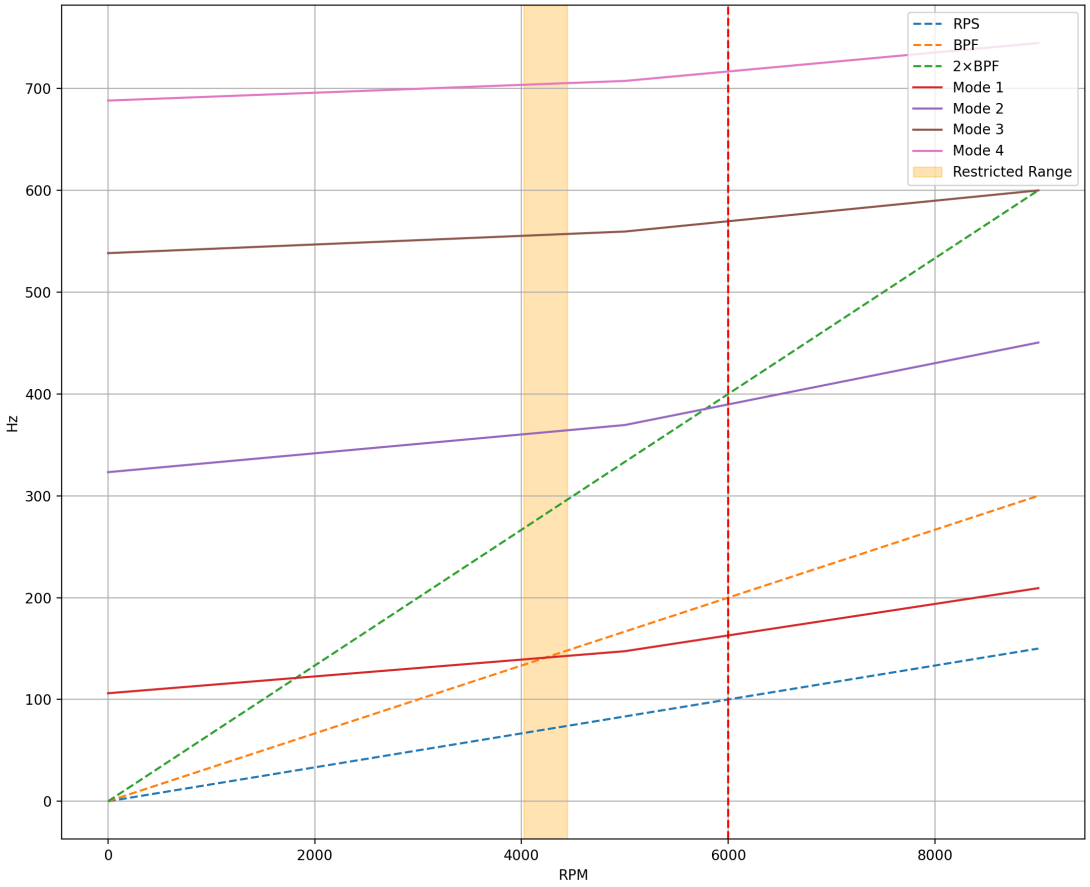
Torque (RPM): $4.339e-07 \cdot RPM^2 + -5.014e-04 \cdot RPM + 4.548e-01$

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

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	4020-4450[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).