

Professional Propulsion Systems

SYSTEM SPECIFICATIONS

MOTOR + ESC



Name:	MD1508P
Manufacturer:	Industrial Technology Research Institute
Part number	-
KV [RPM/V]:	80
Max. voltage:	50 V
Base module mass:	2300 g
Max continuous current:	240 A

PROPELLER



Name:	42x15.2 2B MC D-Box (Direction guide)
Manufacturer:	Mejzlik
Diameter:	42 in
Pitch:	15.2 in
Mass:	335 g
Contact:	info@mejzlik.eu

ANALYSIS



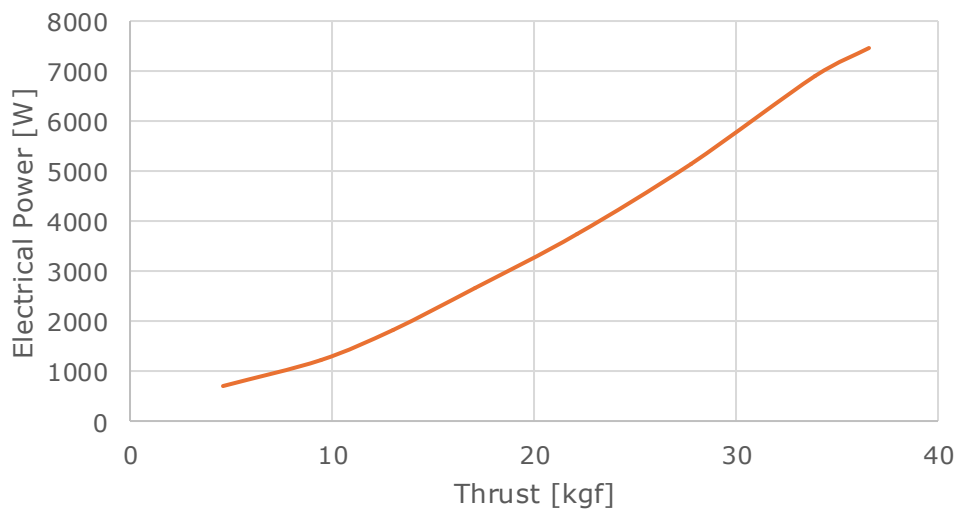
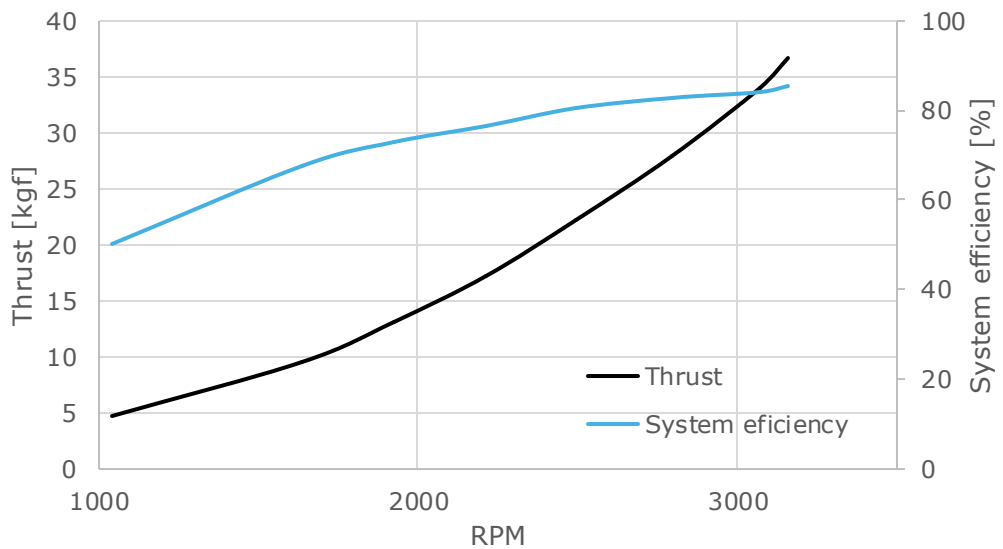
Need expert guidance on analyzing your flight performance?
Our team provides a comprehensive analysis of RPM calculations, motor and propeller efficiency, including customized propeller selection recommendations to ensure your system achieves maximum efficiency.

Please reach out to us at info@mejzlik.eu or cindylou@itri.org.tw

MEASURED DATA

PWM [μs]	Rotational Speed [RPM]	Thrust [kgf]	Torque [Nm]	Voltage [V]	Current [A]	Mechanical Power [W]	Electrical Power [W]	System Efficiency [%] ^[1]
1282	1043	4.65	2.85	50.51	13.8	349.0	697.0	50.1
1376	1638	9.46	4.85	50.05	24.6	833.4	1231.3	67.7
1470	1924	13.04	6.69	49.57	37.3	1348.0	1848.9	72.9
1564	2214	17.11	8.83	48.97	54.6	2047.8	2673.6	76.6
1658	2496	22.13	11.48	48.17	77.5	3003.6	3732.9	80.5
1752	2796	27.83	14.58	47.10	109.6	4271.5	5161.8	82.8
1846	3070	33.97	17.96	45.85	150.3	5776.3	6891.0	83.8
1890	3161	36.61	19.24	45.23	164.8	6368.5	7454.1	85.4

Air density: 1.193 kg/m³



^[1] Includes motor efficiency, controller efficiency, wire and connectors losses.