

Professional Propulsion Systems

SYSTEM SPECIFICATIONS

ENGINE



Name:	4201
Manufacturer:	HIRTH ENGINES
Type:	2-cylinder, two stroke
Displacement:	183 cm³
Max. performance:	11 kW at 6500 RPM
Weight:	5.7 kg
RPM range:	1800–6500 RPM
Running direction:	Clockwise

PROPELLER



Name:	30x13 3B EVO CCW (Direction guide)
Manufacturer:	Mejzlik
Diameter:	30 in
Pitch:	13 in
Mass:	403 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 info@hirthengines.com

ID: **0115**



PERFORMANCE OF THE SYSTEM

Flight velocity

0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	9	0.38	40	0
1600	24	0.99	166	0
2200	46	1.90	437	0
2800	77	3.16	925	0
3400	114	4.70	1673	0
4000	161	6.57	2751	0
4600	215	8.85	4261	0
5200	277	11.61	6323	0
5900	366	15.46	9554	0

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	0.00	0	—
1600	7	0.66	111	66
2200	27	1.79	412	66
2800	56	3.25	954	59
3400	91	4.93	1757	52
4000	134	6.94	2907	46
4600	185	9.35	4503	41
5200	246	12.21	6651	37
5900	330	16.20	10010	33

PERFORMANCE OF THE SYSTEM

Flight velocity

20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-6	-0.25	-26	—
1600	-10	-0.04	-7	—
2200	-4	0.26	59	—
2800	19	1.78	522	71
3400	49	3.72	1324	75
4000	89	5.95	2494	71
4600	137	8.56	4122	66
5200	194	11.55	6292	62
5900	273	15.64	9661	56

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-8	-0.73	-77	—
1600	-14	-0.41	-68	—
2200	-19	0.02	5	—
2800	-14	0.46	134	—
3400	0	0.92	328	—
4000	33	3.29	1377	71
4600	76	6.13	2955	77
5200	127	9.39	5113	75
5900	200	13.71	8471	71

PERFORMANCE OF THE SYSTEM

Flight velocity

40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-11	-1.35	-141	—
1600	-16	-1.04	-174	—
2200	-24	-0.52	-119	—
2800	-30	0.23	67	—
3400	-27	0.93	330	—
4000	-21	0.26	110	—
4600	5	1.90	915	24
5200	51	5.33	2904	70
5900	117	9.89	6108	76

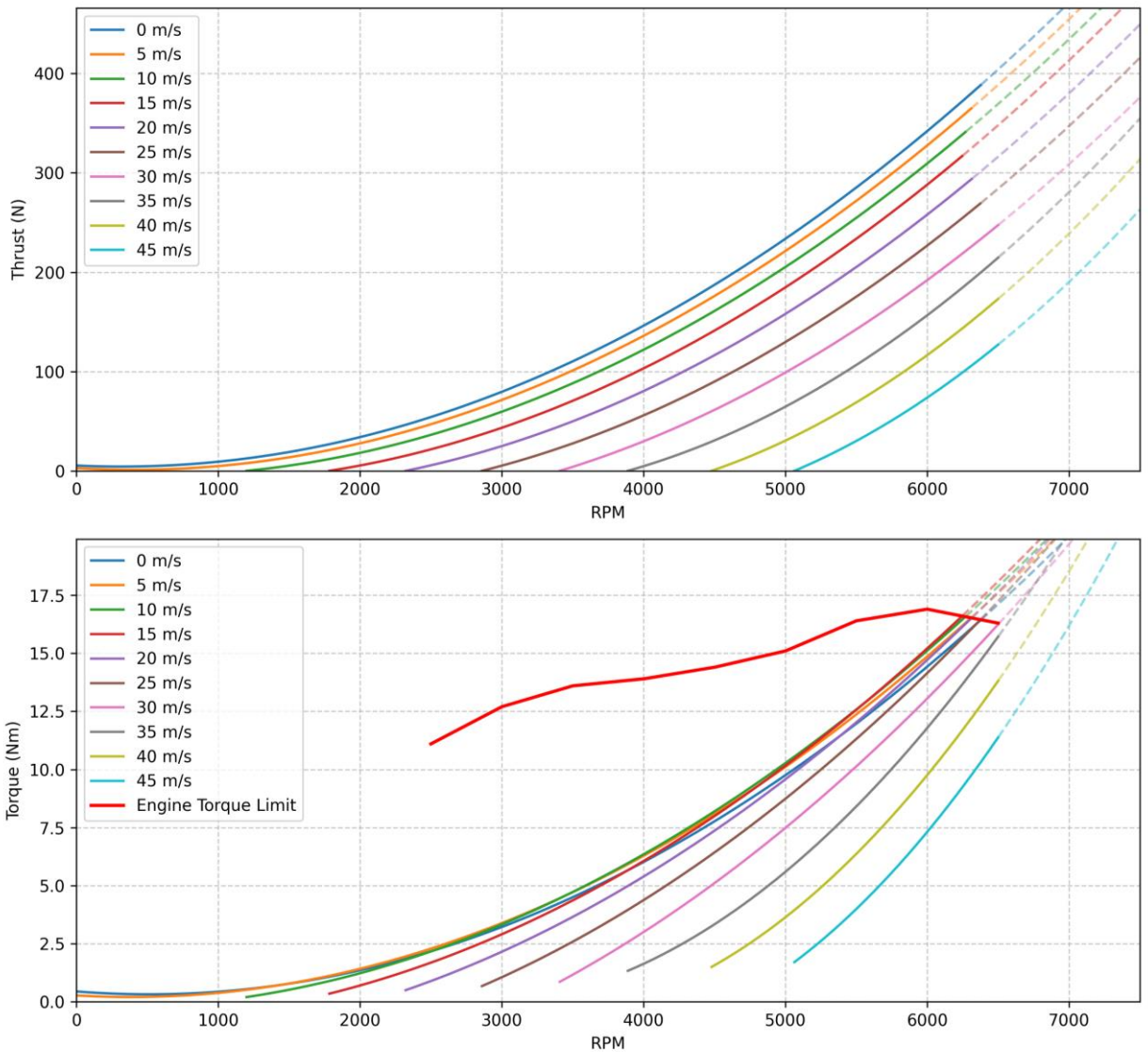
Flight velocity

50 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-14	-2.14	-224	—
1600	-20	-1.84	-308	—
2200	-27	-1.29	-298	—
2800	-36	-0.47	-138	—
3400	-42	0.53	187	—
4000	-43	1.24	519	—
4600	-42	0.35	169	—
5200	-30	-0.18	-100	—
5900	23	4.11	2536	45

PERFORMANCE OF THE SYSTEM

Hirth 4201 + Mejzlik 30x13 2B EVO Performance in flight



NOTE



Data presented in this product sheet are a combination of measurements of engine performance (RPM, torque), which is complemented with propeller data, simulated in Mejzlik's proprietary simulation software. The greyed out values are above engine limit.

Data is valid for 0m ISA. Propeller performance simulation accuracy can diverge at higher tip speeds (above 0.7 Mach). Propeller is structurally safe to operate below Mach 1 tip speed.

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