

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 2B EVO CCW (Direction guide)
Manufacturer:	Mejzlik
Diameter:	30 in
Pitch:	13 in
Mass:	295 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: **0114**



PERFORMANCE OF THE SYSTEM

Flight velocity

0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	9	0.37	39	0
1600	23	0.96	161	0
2200	45	1.83	421	0
2800	76	3.07	900	0
3400	112	4.57	1627	0
4000	158	6.37	2668	0
4600	211	8.65	4167	0
5200	277	11.30	6154	0
5900	362	15.00	9265	0

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	-0.09	-10	—
1600	7	0.62	104	68
2200	27	1.76	404	67
2800	56	3.19	936	60
3400	90	4.84	1725	52
4000	133	6.83	2859	47
4600	184	9.18	4424	42
5200	244	11.98	6524	37
5900	326	15.89	9816	33

PERFORMANCE OF THE SYSTEM

Flight velocity

20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-6	-0.31	-33	—
1600	-11	-0.19	-31	—
2200	-5	-0.01	-2	—
2800	18	1.67	489	74
3400	49	3.63	1293	76
4000	88	5.85	2450	72
4600	135	8.33	4013	67
5200	193	11.34	6174	62
5900	272	15.45	9543	57

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-8	-0.89	-93	—
1600	-14	-0.59	-98	—
2200	-21	-0.30	-70	—
2800	-20	-0.79	-231	—
3400	-1	0.59	211	—
4000	33	3.16	1322	76
4600	76	6.08	2928	78
5200	128	9.31	5069	76
5900	201	13.58	8389	72

PERFORMANCE OF THE SYSTEM

Flight velocity

40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-11	-1.64	-172	—
1600	-17	-1.40	-235	—
2200	-26	-1.03	-236	—
2800	-34	-0.68	-200	—
3400	-42	-2.08	-740	—
4000	-28	-1.31	-551	—
4600	7	1.65	793	36
5200	53	5.20	2834	75
5900	120	9.88	6105	78

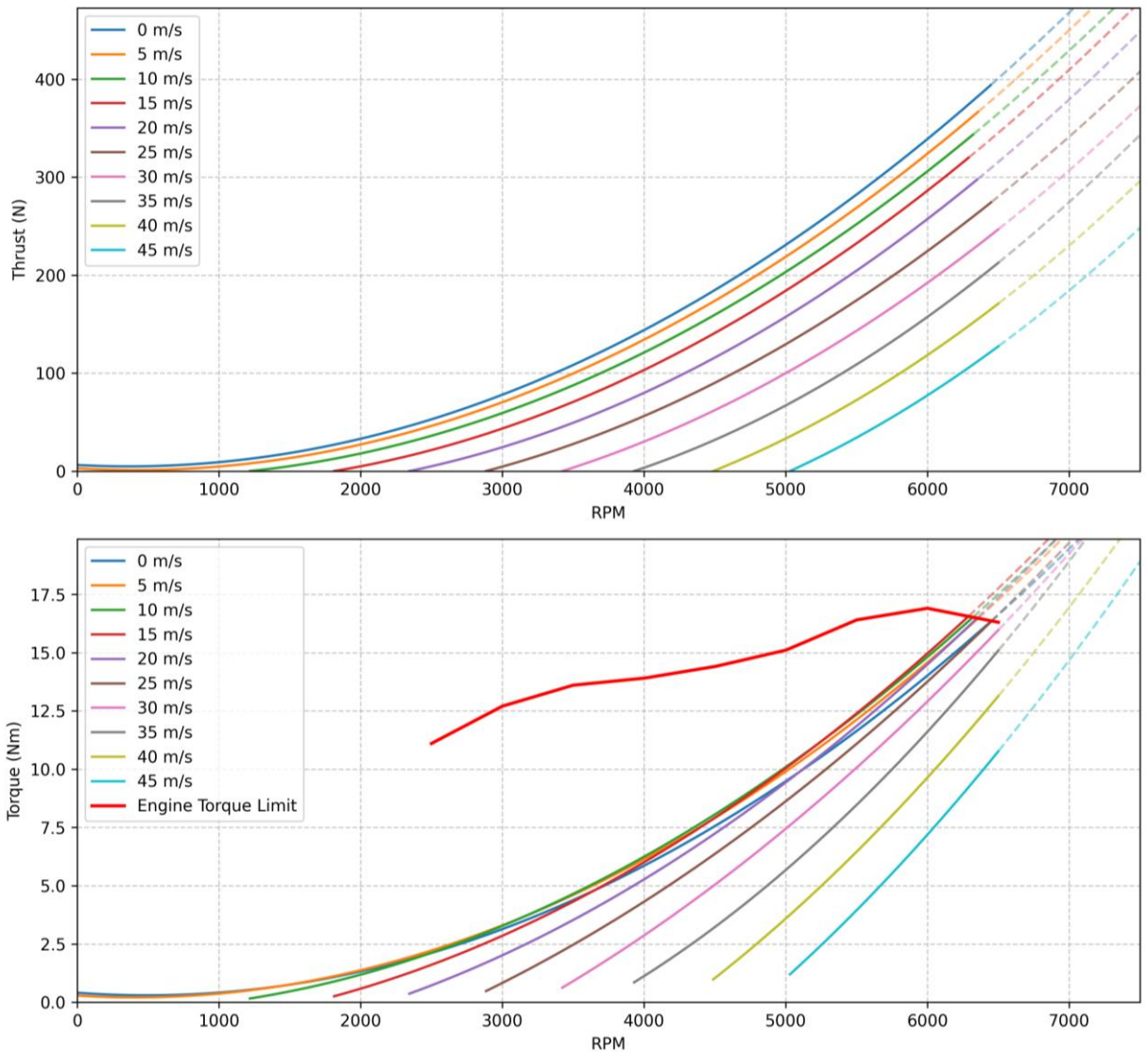
Flight velocity

50 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-14	-2.67	-279	—
1600	-21	-2.45	-410	—
2200	-30	-2.13	-491	—
2800	-40	-1.52	-444	—
3400	-49	-0.99	-351	—
4000	-66	-3.82	-1601	—
4600	-56	-3.11	-1500	—
5200	-28	-0.88	-481	—
5900	29	3.95	2441	58

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 Mejzliks 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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