

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:	32x12 2B EVO CCW (Direction guide)
Manufacturer:	Mejzlik
Diameter:	32 in
Pitch:	12 in
Mass:	316 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: **0117**



PERFORMANCE OF THE SYSTEM

Flight velocity

0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	12	0.54	57	0
1500	28	1.23	194	0
2100	57	2.46	541	0
2600	88	3.84	1045	0
3200	134	5.93	1988	0
3800	194	8.51	3384	0
4300	252	10.94	4927	0
4900	332	14.60	7491	0
5500	429	18.94	10906	0

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-2	0.15	16	—
1500	9	0.87	137	64
2100	33	2.34	514	65
2600	62	3.85	1050	59
3200	105	6.07	2035	52
3800	159	8.75	3481	46
4300	213	11.36	5117	42
4900	288	15.12	7760	37
5500	377	19.64	11313	33

PERFORMANCE OF THE SYSTEM

Flight velocity

20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1500	-10	0.11	18	—
2000	-5	0.62	131	—
2500	12	1.68	441	53
3000	41	3.62	1138	71
3500	78	5.93	2172	71
4000	122	8.53	3572	68
4300	153	10.27	4624	66
4500	175	11.52	5431	65
5000	237	14.96	7834	61
5500	309	18.89	10878	57

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2300	-19	0.63	151	—
2700	-16	1.03	292	—
3100	-7	1.49	483	—
3500	11	2.50	917	37
3900	41	4.52	1844	66
4300	76	6.97	3138	73
4700	118	9.69	4770	74
5100	165	12.69	6779	73
5500	219	16.01	9219	71

PERFORMANCE OF THE SYSTEM

Flight velocity

40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
3100	-34	1.09	355	—
3400	-32	1.34	478	—
3700	-28	1.58	614	—
4000	-18	2.14	896	—
4300	-5	2.60	1172	—
4600	17	3.87	1864	36
4900	45	5.86	3006	59
5200	77	8.16	4441	69
5500	113	10.76	6199	73

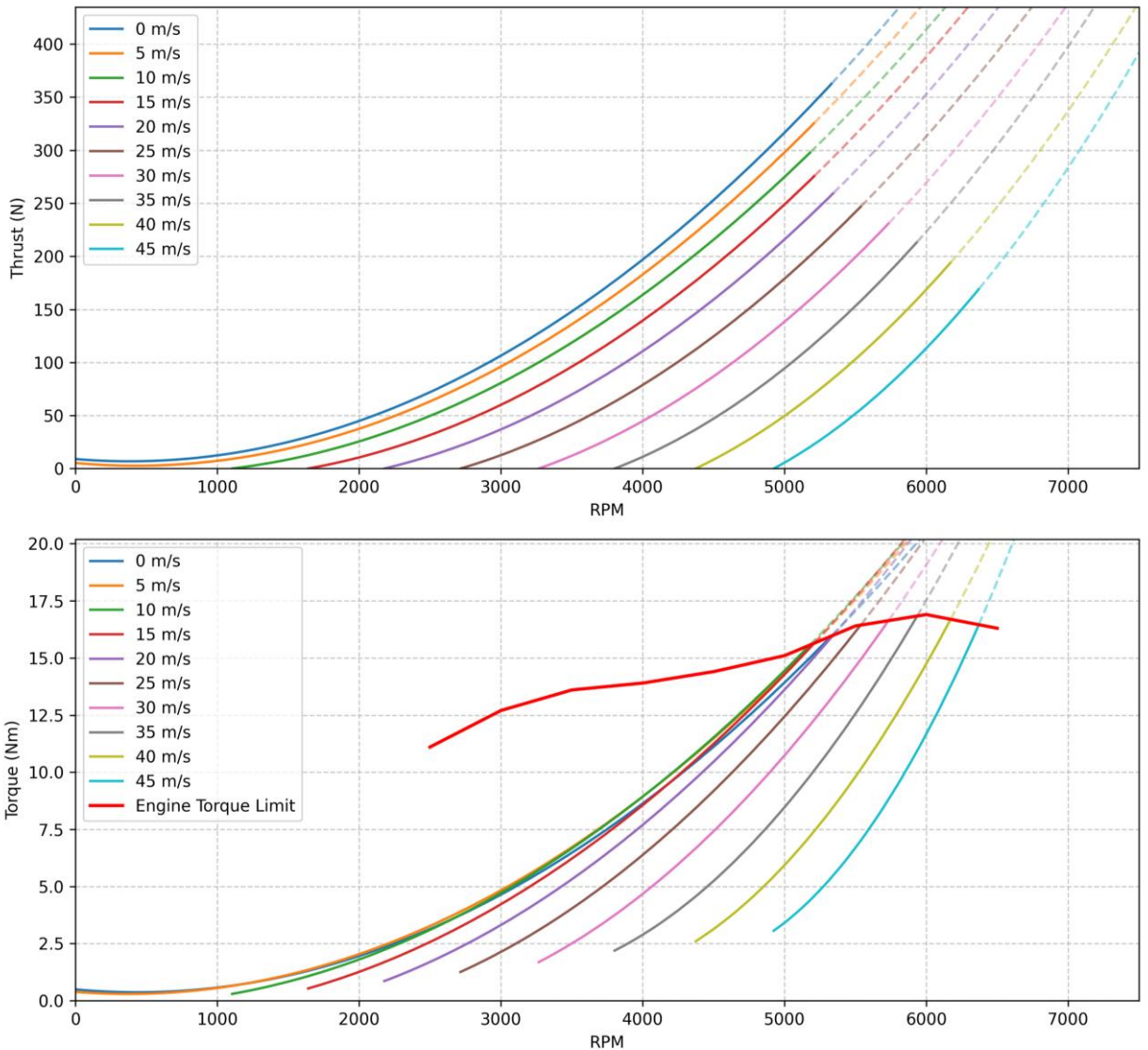
Flight velocity

50 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
3900	-56	1.41	575	—
4100	-55	1.61	690	—
4300	-53	1.81	816	—
4500	-50	1.99	937	—
4700	-44	2.31	1139	—
4900	-35	2.70	1384	—
5100	-25	3.02	1614	—
5300	-13	3.36	1867	—
5500	2	4.13	2381	5

PERFORMANCE OF THE SYSTEM

Hirth 4201 + Mejlík 32x12 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 Mejlík'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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