

# Professional Propulsion Systems

## SYSTEM SPECIFICATIONS

### ENGINE



Name:	<b>101HS</b>
Manufacturer:	<b>ZANZOTTERA ENGINES</b>
Type:	<b>2-cylinder</b>
Displacement:	<b>116 cm<sup>3</sup></b>
Max. performance:	<b>8,2 kW at 7000 RPM</b>
Weight:	<b>7,22 Kg</b>
Max RPM:	<b>7000 RPM</b>
Running direction:	<b>Clockwise</b>

### PROPELLER



Name:	<b>28x10 2B EVO CCW (Direction guide)</b>
Manufacturer:	<b>Mejzlik</b>
Diameter:	<b>28 in</b>
Pitch:	<b>10 in</b>
Mass:	<b>230 g</b>
Contact:	<b>info@mejzlik.eu</b>

### 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](mailto:info@mejzlik.eu) or [idanbi@zanzotteraengines.com](mailto:idanbi@zanzotteraengines.com)

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# PERFORMANCE OF THE SYSTEM

Flight velocity

**0 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	6	0.24	<b>25</b>	<b>0</b>
1600	17	0.61	<b>103</b>	<b>0</b>
2300	35	1.28	<b>307</b>	<b>0</b>
2900	57	2.06	<b>624</b>	<b>0</b>
3600	89	3.19	<b>1202</b>	<b>0</b>
4300	129	4.53	<b>2042</b>	<b>0</b>
4900	168	6.1	<b>3131</b>	<b>0</b>
5000	176	6.35	<b>3327</b>	<b>0</b>
5600	225	8.13	<b>4766</b>	<b>0</b>
6300	288	10.64	<b>7020</b>	<b>0</b>

Flight velocity

**10 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	-0.03	<b>-3</b>	<b>—</b>
1600	2	0.29	<b>48</b>	<b>39</b>
2300	18	1.1	<b>264</b>	<b>67</b>
2900	37	1.97	<b>598</b>	<b>61</b>
3600	66	3.21	<b>1209</b>	<b>54</b>
4300	102	4.71	<b>2121</b>	<b>48</b>
4900	139	6.26	<b>3214</b>	<b>43</b>
5000	146	6.55	<b>3427</b>	<b>43</b>
5600	191	8.38	<b>4914</b>	<b>39</b>
6300	252	10.92	<b>7201</b>	<b>35</b>

# PERFORMANCE OF THE SYSTEM

Flight velocity

**20 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1800	-11	-0.11	<b>-20</b>	—
2300	-10	0.03	<b>8</b>	—
2900	2	0.7	<b>212</b>	<b>21</b>
3400	19	1.62	<b>577</b>	<b>65</b>
4000	44	2.93	<b>1228</b>	<b>71</b>
4600	74	4.48	<b>2158</b>	<b>69</b>
5000	98	5.63	<b>2949</b>	<b>67</b>
5100	105	5.94	<b>3172</b>	<b>66</b>
5700	147	7.93	<b>4732</b>	<b>62</b>
6300	197	10.21	<b>6737</b>	<b>59</b>

Flight velocity

**30 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2700	-25	-0.33	<b>-92</b>	—
3100	-25	-0.2	<b>-66</b>	—
3600	-17	0.27	<b>101</b>	—
4000	-6	0.81	<b>341</b>	—
4500	13	1.9	<b>893</b>	<b>44</b>
4900	33	3.02	<b>1550</b>	<b>64</b>
5000	38	3.31	<b>1734</b>	<b>66</b>
5400	62	4.6	<b>2603</b>	<b>72</b>
5800	89	6.07	<b>3685</b>	<b>72</b>
6300	127	8.09	<b>5338</b>	<b>71</b>

# PERFORMANCE OF THE SYSTEM

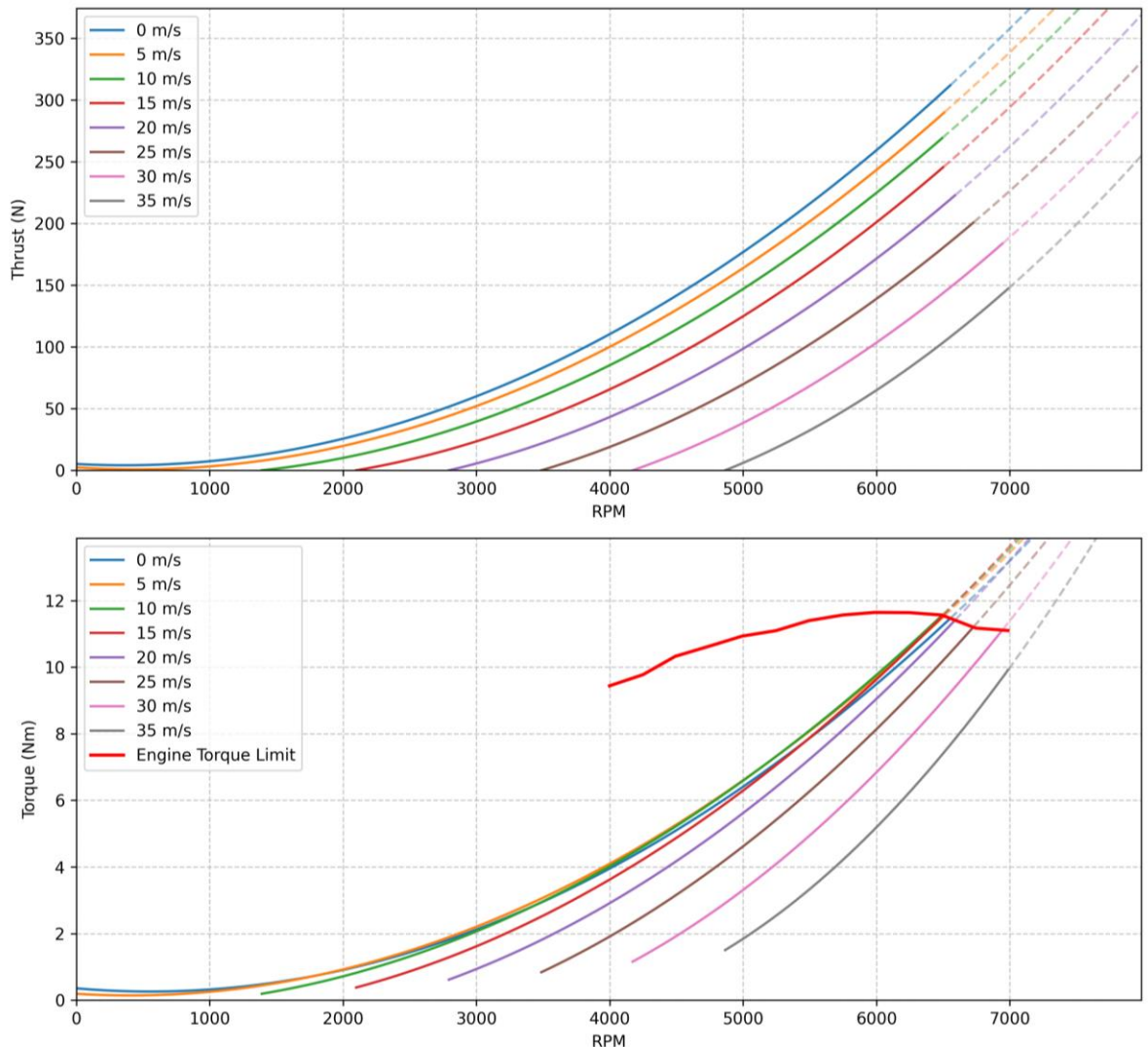
Flight velocity

**40 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
3600	-46	-0.71	<b>-267</b>	—
3900	-47	-0.56	<b>-228</b>	—
4300	-42	-0.27	<b>-122</b>	—
4600	-36	0.04	<b>17</b>	—
4900	-26	0.47	<b>240</b>	—
5000	-23	0.65	<b>340</b>	—
5300	-12	1.2	<b>665</b>	—
5600	2	1.95	<b>1145</b>	<b>7</b>
5900	19	2.99	<b>1846</b>	<b>40</b>
6300	45	4.53	<b>2988</b>	<b>60</b>

# PERFORMANCE OF THE SYSTEM

## 101HS + Mejlík 28x10 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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