

TECHNICAL DATA

Turbine and generator manufacturer	ROPATEC														
Turbine model	T30pro														
Nominal power	30 kW														
Wind speed	<table border="1"> <tr> <td rowspan="2">Start-up</td> <td>CUSTOMIZED</td> <td>Cut-In</td> <td>ca. 4 m/s**</td> </tr> <tr> <td>STANDARD</td> <td>CUT-OUT</td> <td>26 m/s</td> </tr> <tr> <td></td> <td></td> <td>CUT-OUT</td> <td>17 m/s</td> </tr> </table>	Start-up	CUSTOMIZED	Cut-In	ca. 4 m/s**	STANDARD	CUT-OUT	26 m/s			CUT-OUT	17 m/s	<table border="1"> <tr> <td>Wind class according to IEC 61400-2</td> <td>class III</td> </tr> </table>	Wind class according to IEC 61400-2	class III
Start-up	CUSTOMIZED		Cut-In	ca. 4 m/s**											
	STANDARD	CUT-OUT	26 m/s												
		CUT-OUT	17 m/s												
Wind class according to IEC 61400-2	class III														
Generator	Direct driven permanent magnets														
Turbine wings material	Carbon and glass fiber														
Turbine diameter	10 m														
Wing length	10 m														
Overspeed control	Safety PLC controller SIL-3 (electrical and hydraulic brake)														
Noise	<table border="1"> <tr> <td>Value</td> <td>ca. 40 dB</td> </tr> <tr> <td>Wind speed</td> <td>8 m/s</td> </tr> <tr> <td>Distance from pole</td> <td>30 m</td> </tr> </table>	Value	ca. 40 dB	Wind speed	8 m/s	Distance from pole	30 m								
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Support	<table border="1"> <tr> <td>Pole height</td> <td>Standard</td> <td>24 m class III</td> </tr> </table>	Pole height	Standard	24 m class III											
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Weight	<table border="1"> <tr> <td>Turbine (without pole)</td> <td>ca. 3500 kg</td> </tr> </table>	Turbine (without pole)	ca. 3500 kg												
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Monitoring system	SDMR / SCADA (optional)														
Operating temperature	-20°C/+55°C														
Operating altitude	≤ 2000 m AMSL														

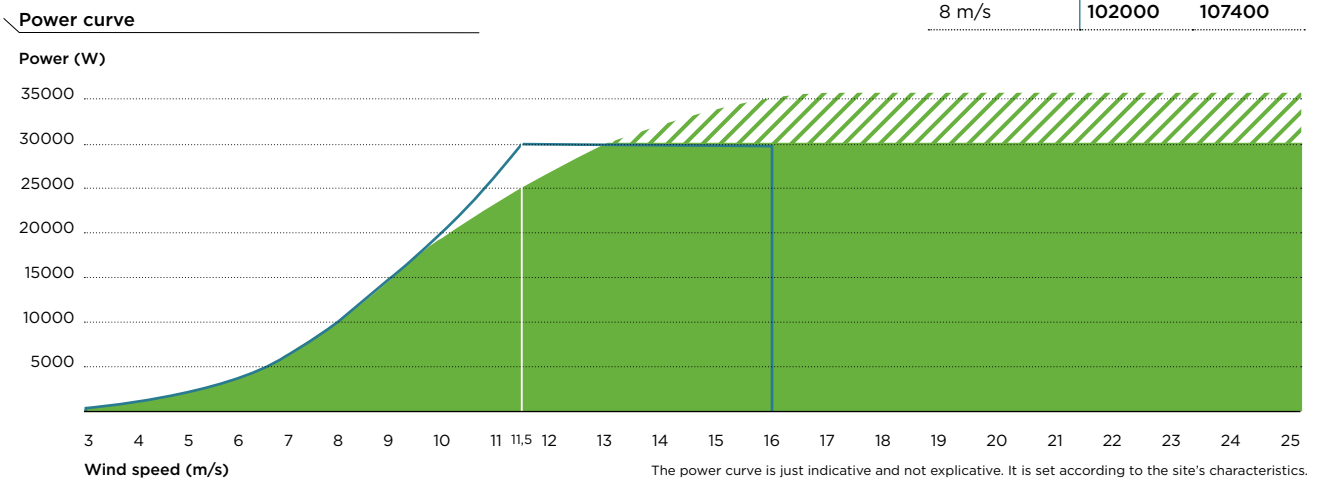
Power curve***

Wind Speed (m/s)	STANDARD	CUSTOMIZED
	Power (W)	Power (W)
3	61	61
4	760	760
5	2013	2013
6	4038	4038
7	6860	6860
8	10440	10440
9	15039	15039
10	20780	19963
11	26474	23504
11,5	30000	25000
12	30000	27496
13	30000	30000
14	30000	30000
15	30000	30000
16	30000	30000
17	-	30000
18	-	30000
19	-	30000
20	-	30000
21	-	30000
22	-	30000
23	-	30000
24	-	30000
25	-	30000

The turbine can be additionally calibrated according to the site.

AEP *
Distribution **K = 2**
IEC 61400-12-1

Annual average wind	STANDARD	CUSTOMIZED
	kWh/year	kWh/year
7 m/s	81000	84300
7,5 m/s	91700	96100
8 m/s	102000	107400



The data reported reflect ideal work conditions; they are subject to change in relations to external factors such as temperature, altitude, atmospheric pressure, turbulence level, humidity and presence of obstructions.

* **Annual Energy Production**
Strongly depending on the wind shear and distribution factor.

** This value is an average of 10 minutes.

*** The data correspond to a laminar wind.