

TECHNICAL DATA

Turbine and generator manufacturer	ROPATEC	
Turbine model	T20proS	
Nominal power	20 kW	
Wind speed	Start-up	ca. 4 m/s**
	CUSTOMIZED CUT-OUT	23 m/s
	STANDARD CUT-OUT	16 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	11 m	
Wing length	12 m	
Overspeed control	Safety PLC controller SIL-3 (electrical and hydraulic brake)	
Noise	Value	ca. 40 dB
	Wind speed	8 m/s
	Distance from pole	30 m
Support	Pole height	Standard 24 m class III
	Weight	Turbine (without pole) ca. 3200 kg
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	80	80
4	950	950
5	2520	2720
6	4935	5310
7	8190	8740
8	13020	14200
9	18500	20000
10	20000	20000
11	20000	20000
12	20000	20000
12.5	20000	20000
13	20000	20000
14	20000	20000
15	20000	20000
16	-	20000
17	-	20000
18	-	20000
19	-	20000
20	-	20000
21	-	20000
22	-	20000

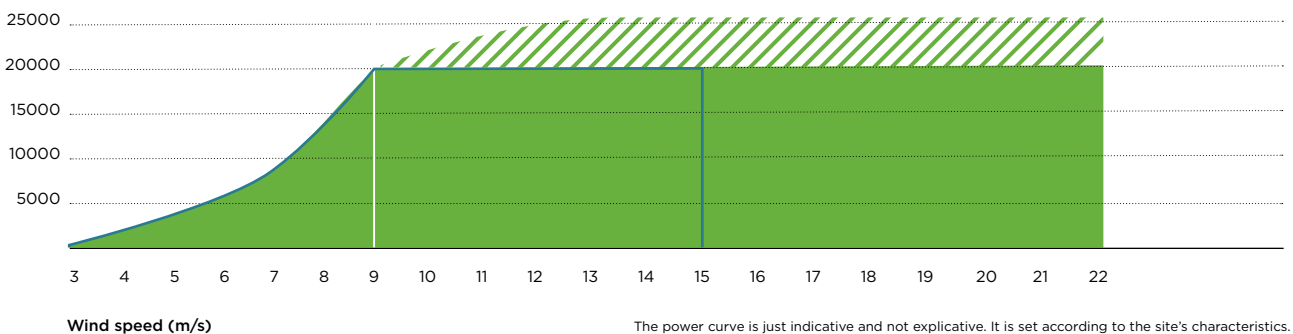
The turbine can be additionally calibrated according to the site.

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

Annual average wind	STANDARD	CUSTOMIZED
	kWh/year	kWh/year
5,5 m/s	52000	54000
6 m/s	61000	64400
6,5 m/s	69000	74000
7,0 m/s	76000	82000

Power curve

Power (W)



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.