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Vertical Axis Wind Turbines



HaHe / RND

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T30 *pro*



TECHNICAL DATA



Turbine and generator manufacturer		
Turbine model	T30 proS	
Nominal power	30 kW	
Swept area	143 m ²	
Wind speed		
	Start-up	Cut-in
	ca. 3 m/s	ca. 20 m/s
	Wind class according to IEC 61400-2	
	classe III	
Electric generator type	Direct driven permanent magnets	
Turbine blades material	Fiberglass	
Turbine diameter	11 m	
Wing length	13 m	
Overspeed control	Safety PLC controller (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. 3500 kg
	Monitoring system	SCADA
	Operating temperature	-20°C/+55°C
	Operating altitude	≤ 2000 m s.l.m./≤ 2000 m AMSL

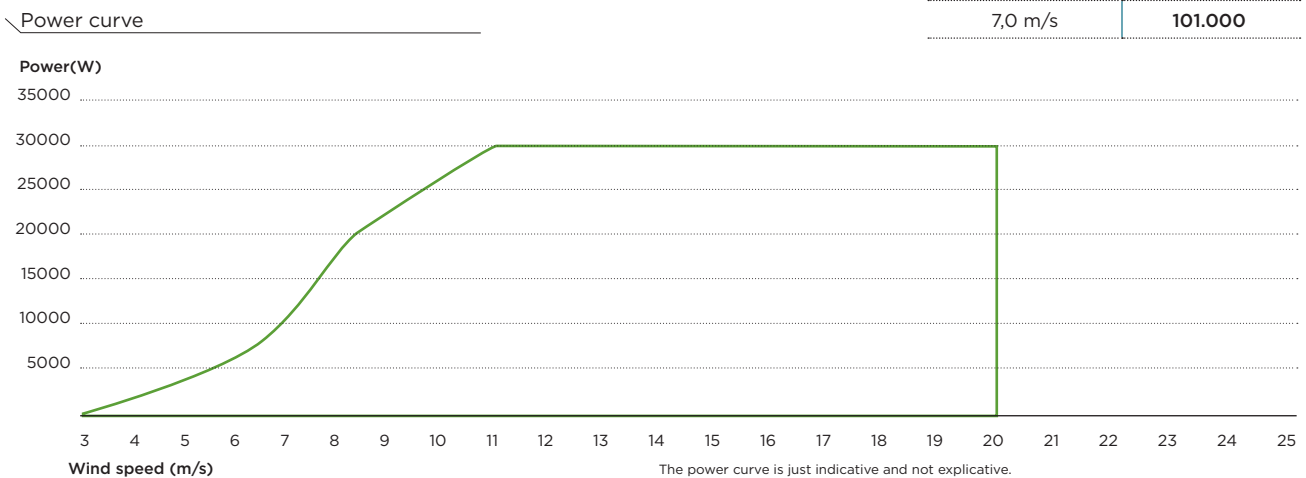
Power curve***

Wind Speed (m/s)	Potenza Power (W)
3	470
4	1100
5	2400
6	4900
7	9000
8	16100
9	24000
10	28000
11	30000
12	30000
12,5	30000
13	30000
14	30000
15	30000
16	30000
17	30000
18	30000
19	30000
20	30000
21	-
22	-

The turbine can be additionally calibrated according to the site.

AEP *
Rayleigh Distribution
IEC 61400-12-1

Annual mean wind speed	STANDARD kWh/anno kWh/year
5,5 m/s	62.000
6,0 m/s	76.000
6,5 m/s	89.000
7,0 m/s	101.000



T20 *pro*



TECHNICAL DATA



Turbine and generator manufacturer		
Turbine model	T20 proS	
Nominal power	30 kW	
Swept area	143 m ²	
Wind speed		
	Start-up	Cut-in
	ca. 3 m/s	ca. 20 m/s
	Wind class according to IEC 61400-2	
	classe III	
Electric generator type	Direct driven permanent magnets	
Turbine blades material	Fiberglass	
Turbine diameter		
Wing length		
Overspeed control	Safety PLC controller (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. 3500 kg
	Monitoring system	SCADA
	Operating temperature	-20°C/+55°C
	Operating altitude	≤ 2000 m s.l.m./≤ 2000 m AMSL
Power curve		

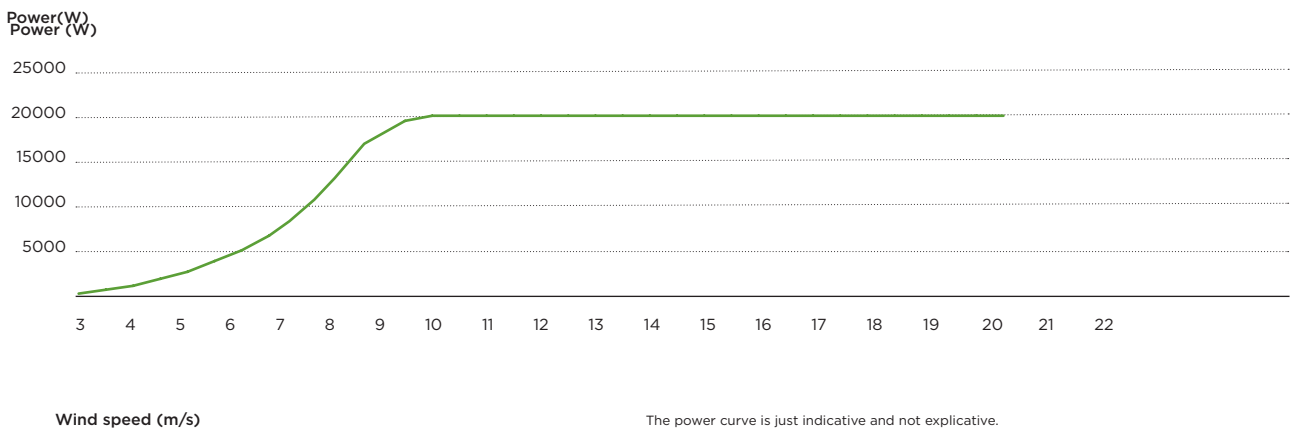
Power curve***

Wind Speed (m/s)	Potenza Power (W)
3	470
4	1100
5	2400
6	4900
7	9000
8	16100
9	20000
10	20000
11	20000
12	20000
12,5	20000
13	20000
14	20000
15	20000
16	20000
17	20000
18	20000
19	20000
20	20000
21	-

The turbine can be additionally calibrated according to the site.

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IEC 61400-12-1

Annual mean wind speed	STANDARD kWh/anno kWh/year
5,5 m/s	53.000
6,0 m/s	63.000
6,5 m/s	72.000
7,0 m/s	80.000



SA40



TECHNICAL DATA



Turbine and generator manufacturer		
Turbine model	SA40	
Nominal power	10 kW	
Swept area	40 m ²	
Wind speed		
	Start-up	Cut-in
	ca. 3 m/s	ca. 18 m/s
	Wind class according to IEC 61400-2	
	classe III	
Electric generator type	Direct driven permanent magnets	
Turbine blades material	Fiberglass	
Turbine diameter	7 m	
Wing length	5,7 m	
Overspeed control	Safety PLC controller (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. 1900 kg
	Monitoring system	SCADA
	Operating temperature	-20°C/+55°C
	Operating altitude	≤ 2000 m s.l.m./≤ 2000 m AMSL
Power curve		

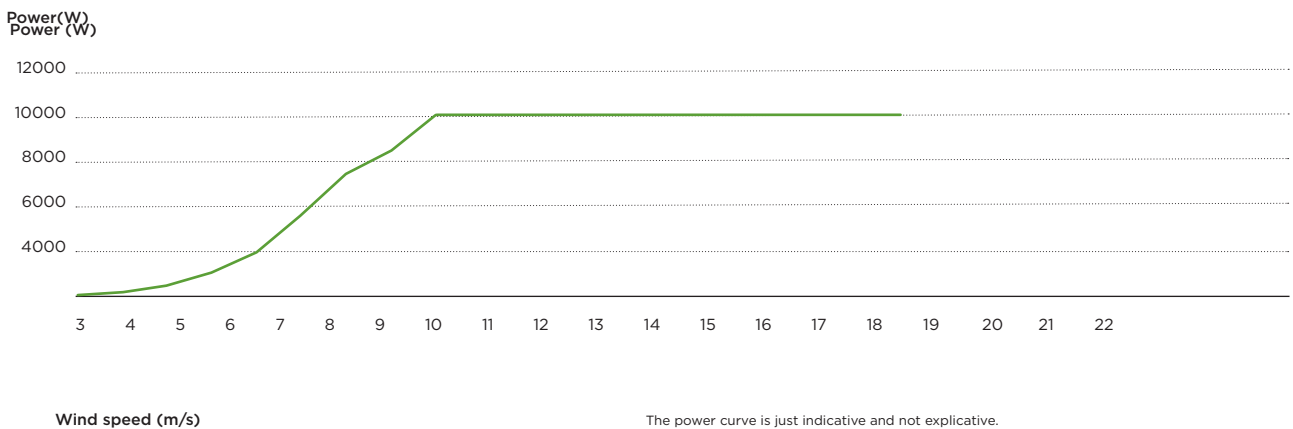
Power curve***

Wind Speed (m/s)	Potenza Power (W)
3	130
4	670
5	1370
6	2500
7	4500
8	6700
9	8000
10	10000
11	10000
12	10000
12,5	10000
13	10000
14	10000
15	10000
16	10000
17	10000
18	10000
19	-
20	-
21	-

The turbine can be additionally calibrated according to the site.

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Annual mean wind speed	STANDARD kWh/anno kWh/year
5,5 m/s	18.000
6,0 m/s	22.600
6,5 m/s	26.700
7,0 m/s	30.600





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“One small wind turbine won't change the world, but many will”

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