

TECHNICAL DATA - PTCRSI 646

50 m Hub Height (Tubular Tower)

1. General	
Nominal Output	600 KW
Rotor Shaft arrangement	Horizontal
Effect limitation	Pitch
Mode of Operation	Grid connected
Hub Height	50 m
Survival wind speed	59.5m/s
Calculated lifetime	20years

2. Power Data (10 min- mean wind speed at hub height)	
Cut in wind speed	3 m/s
Rated wind speed	12 m/s
Power in 10m/s	437 kW
Cut Out wind speed	25 m/s
Max Shaft Power	660 KW
Specific Output	332 W/m ²

3. Rotor	
Diameter	46m
Swept Area	1,662 m ²
Number of blades	3
Kind of hub	Rigid
Arrangement of rotor	Upwind
Rotor speed range	10-30 rpm
Lambda	5.5
Pitch Angle	2 - 88°
Conus Angle	0°
Nacelle Angle	4°

4. Blade	
Type	PTCRSI 22,1 - Profile :FX77xxx
Material	GFK
Length of blade	22.1 m
Weight	1,650 Kg

5. Gear	
Type	Helical Spur Gear
Ratio	1:50.3
Nominal Torque	190 kNm

6. Yaw System	
Kind(Active/Passive)	Active
Actuation	Electrical
Yaw Speed	0.5°/s
Absorbation System	Motor brake

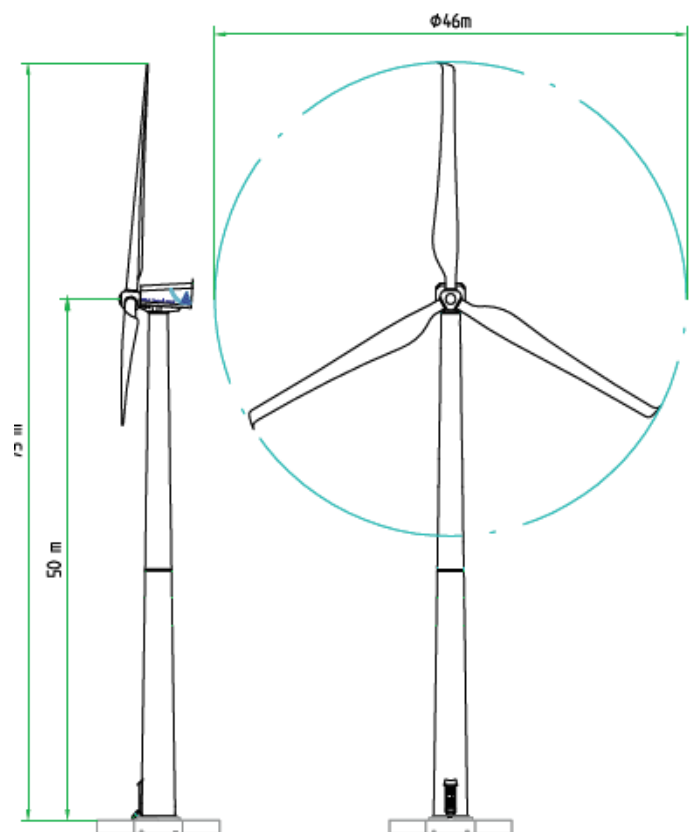
7. Generator	
Quantity	2
Type	Asynchronous, Squirrel - caged
Rated Output	330 kW
Rated Speed	1500 rpm
Voltage	690V
Frequency	50 Hz
Nominal Slip	0.90%
Protection	IP54
Grid Connection	Full size inverter

8. Tower (Material : Steel)	
Kind & Length	Tubular 48.5m
Safety Ladder	With climbing support

9. Control System	
Power regulation	Pitch, electrical activation
Operating System	WP 3100
Remote Control system	Yes, via telephone line
Automatically Start	After loss of grid and after cut out wind.

10. Brakes	
Aerodynamics brake	Pitch system(3 X)
- Activation	Electrical
Mechanical Brake	Yes
- Arrangement	Behind gearbox
- Brake Type	Disc brake
- Activation	Pneumatic

11. Masses	
Rotor Assembly	10,500 Kg
Nacelle Assembly	24,500 Kg
Tower	54,000 Kg
Total	89,000 Kg



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