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2.0MW Series Wind Turbine (Onshore) SE8220III、SE8720III SE9320III-3



Printed in China



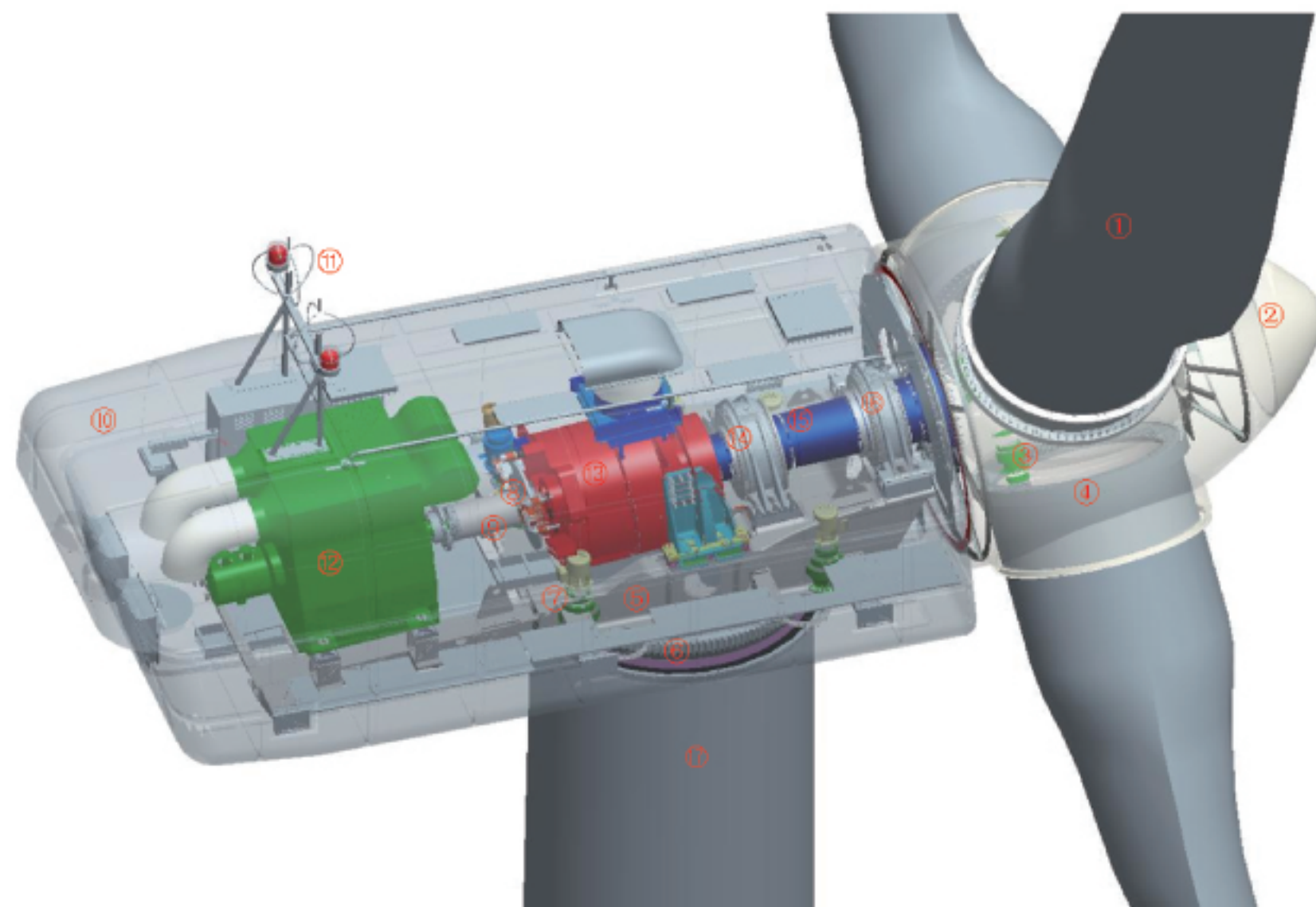
Features

- High wind power utilization and generation capacity:
Speed and pitch control technology is employed to ensure these units run on an optimal power curve, thus maintaining a high factor of wind power utilization. This efficient energy transfer allows for the enhanced generation of additional energy output for a given operating condition.
- Leading drive chain design and low maintenance cost:
The generator utilizes mid-speed, double-fed general design with two-grade drive gear box and 12 pair poles, coupled with low speed ratio, low speed and high reliability. With support of double main bearings, the gear box bears only the torque, thus decreasing the load it sees. The use of industry standard components yield superb parts availability and lowers the overall maintenance cost.
- Grid adaptability:
Safe and rapid non-impact integration technology is used to meet the requirements for grid integration. Low voltage current flows through technologically advanced line that meets international standards and exceeds the requirement for reliability that is necessary for grid demand on large scale wind farms.
- Environmental adaptability:
This innovative design is resistant to low temperatures and wind driven sand, as well as electrical storms, and readily adapts to low air density, enabling the units to adjust to a variety of extreme environments.
- Ability to adapt to a variety of wind farms:
Individual settings with multiple blade lengths and several tower options are available to adapt to a variety of wind resource conditions, meeting the requirements of varying wind farms.

Specifications

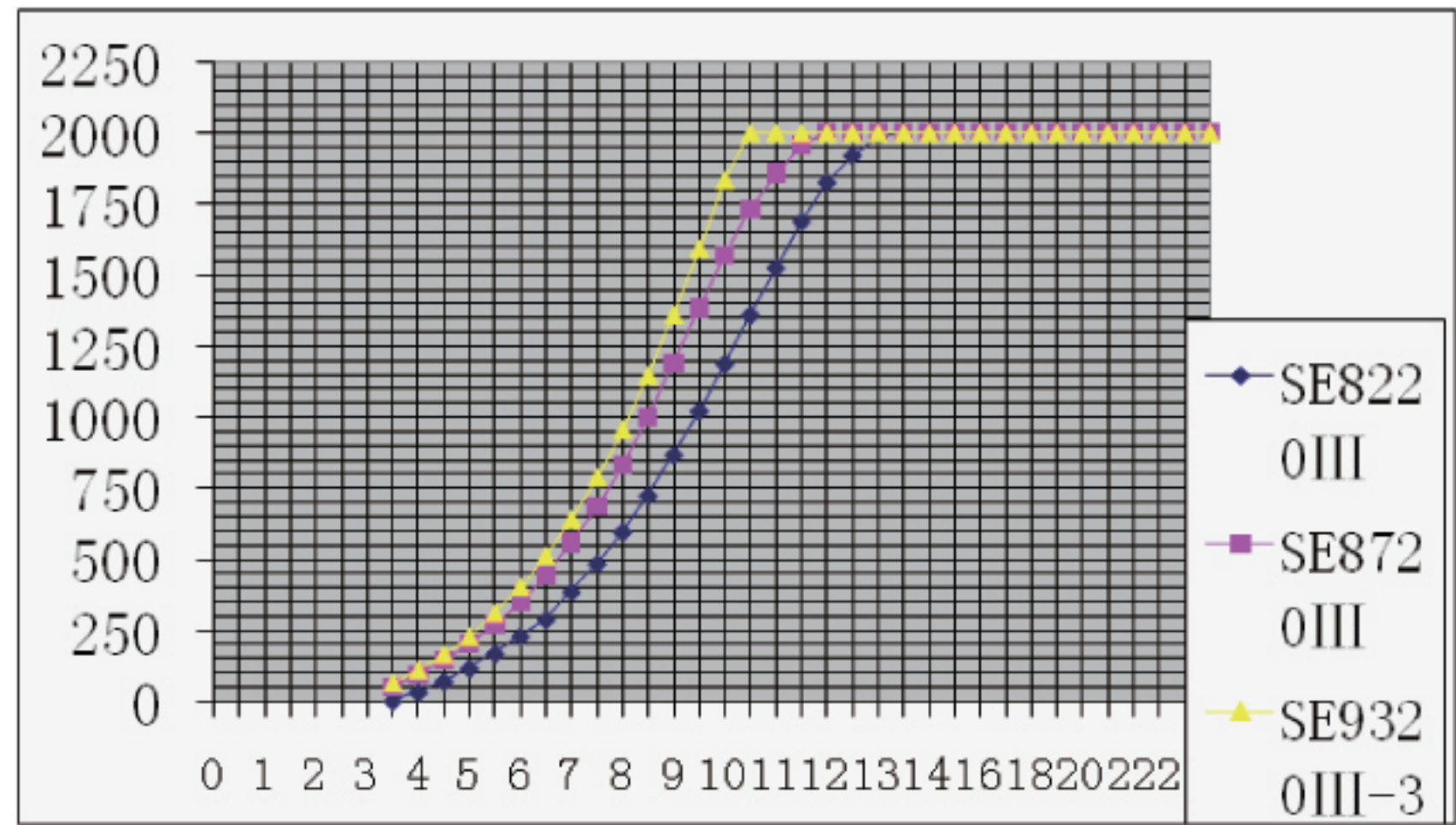
		SE8220Ⅲ	SE8720Ⅲ	SE9320Ⅲ-3
Operational data	Rated Power	2000kW	2000kW	2000kW
	Temperature Conditions	-30° C~40° C	-30° C~40° C	-30° C~40° C
	Cut-in Wind Speed	3.5m/s	3.5 m/s	3.5 m/s
	Cut-out Wind Speed	25m/s	25 m/s	22 m/s
	Design Class	IECⅠa / IECⅡa	IECⅡa	IECⅢa
Rotor	Diameter	82.5m	87m	93m
	Swept Area	5343m²	5945 m²	6793 m²
	Rotor Speed	18rpm	17 rpm	16 rpm
	Rotational direction	Clockwise	Clockwise	Clockwise
Blade	Number of Blade	3	3	3
	Length	40.6m	42.5m	45.3m
Tower	Height	70/80m	70/80m	70/80m
Gearbox	Type	One-stage Planetary Gearbox with One Spur-gear Stage	One-stage Planetary Gearbox with One Spur-gear Stage	One-stage Planetary Gearbox with One Spur-gear Stage
	Transmission Ratio	2200kW	2200kW	2200kW
	Rated Power	33.3	35.29	37.5
Generator	Type	Double-fed asynchronous	Double-fed asynchronous	Double-fed asynchronous
	Rated Power	2060kW	2060kW	2060kW
	Voltage	690V	690V	690V
	Rated Frequency	50Hz	50Hz	50Hz
	Rotational Speed	600rpm	600rpm	600rpm

Dimension



- 1-Blade
- 2-Wind Deflector
- 3-Pitch motor and speed-reducer
- 4-Pitch bearing
- 5-Nacelle under-frame
- 6-Yaw bearing
- 7-Yaw speed reducer and motor
- 8-High speed shaft brake
- 9-High speed shaft coupling
- 10- Nacelle cover
- 11- Wind speed vane
- 12- Generator
- 13- Gearbox
- 14- Rear bearing
- 15- Main shaft
- 16- Front shaft

Power Curve



	SE8220Ⅲ	SE8720Ⅲ	SE9320Ⅲ-3
Hub Speed (m/s)	Power (KW)		
3.5	4.6	50.93	63.85
4	35.1	92.15	108.49
4.5	73.3	143.56	163.43
5	119.4	203.26	227.16
5.5	171.6	271	309.11
6	232.1	351.5	401.84
6.5	290.6	447.42	511.38
7	388.4	558.77	639.00
7.5	486.0	686.68	786.62
8	597.9	834.21	955.05
8.5	725.0	1000.53	1146.03
9	868.4	1187.52	1360.04
9.5	1023.0	1383.51	1592.54
10	1188.9	1570.67	1833.14
10.5	1359.9	1728.51	2000.00
11	1525.4	1857.62	2000.00
11.5	1688.8	1955.46	2000.00
12	1825.9	2000	2000.00
12.5	1919.9	2000	2000.00
13	1988.7	2000	2000.00
13.5	2000.0	2000	2000.00
14	2000.0	2000	2000.00
15	2000.0	2000	2000.00
16	2000.0	2000	2000.00
17	2000.0	2000	2000.00
18	2000.0	2000	2000.00
19	2000.0	2000	2000.00
20	2000.0	2000	2000.00
21	2000.0	2000	2000.00
22	2000.0	2000	2000.00
23	2000.0	2000	2000.00
24	2000.0	2000	2000.00
25	2000.0	2000	2000.00