

机组 /Wind turbine	机组/Wind Turbine type	HW90/2500	HW97/2500	HW103/2500	HW110/2500
	风区类型/Wind class	IA	IIA+	IIIA	S
	额定功率/Rated Power (kW)	2500			
	切入风速/Cut in wind speed (m/s)	3			
	切出风速/Cut out wind speed (m/s)	25			22
	额定风速/Rated wind speed (m/s)	12.5	12	11.7	11.2
	运行环境温度/Operation temperature range	低温/Cold climate: -30℃~40℃, 高温/Normal climate:-10℃~45℃。			
	生存环境温度/Survival temperature range	低温/Cold climate: -40℃~50℃, 高温/Normal climate:-20℃~50℃。			
风轮系统/Rotor system	叶轮直径/Rotor diameter (m)	90	97	103	110
	叶片长度/Blade length (m)	43.8	45.6	50.3	53.6
	变桨系统/Pitch driver	直流伺服/ DC servo, 交流电机/AC motor			
传动链 /Drive chain	主轴承布置/Rotor bearing layout	圆锥滚子轴承+圆柱滚子轴承/TDI+NNU			
	齿轮箱/Gearbox	三级高速齿轮箱/high speed ratio with three stages			
	发电机和变流器/Generator and converter	高速同步永磁+全功率变流器/PMSG+Full converter			
支承系统 /Support system	机架/Main frame	前后分体,螺栓连接/Two parts connected by bolts			
	偏航系统/Yawing system	4个偏航驱动器+大型回转支承/Four yaw drivers and Slew bearing			
	塔架/Tower	圆锥钢筒/cone-shaped steel tube			
安全制动/Safety Brake	空气制动/Aerodynamic Brake	独立变桨/individual pitch system			
	机械制动/Mechanic Brake	高速制动器对称布置/symmetrical layout of high speed brakes			
控制/Control	控制管理/Management system	PLC+SCADA			
重量/Weight	叶片/Blade (Kg/per blade)	11000	11200	11600	12500
	风轮/ Rotor without blades (Kg)	24000			
	机舱/Nacelle (Kg)	87000			
塔架/Tower	风轮高度/Hub height (m)	70/80/90/100			

2, 功率曲线

风速/wind speed, (m/s)	功率/Output Power (kW), 空气密度/air density ($\rho = 1.225\text{kg/m}^3$)			
	HW90/2500	HW97/2500	HW103/2500	HW110/2500
3	1.8	2.2	3.3	4
4	45.1	52.5	78.4	91.2
5	172.6	200.5	237.9	280.3
6	325.1	377.7	440.5	511.4
7	541.8	629.4	729.7	830.2
8	837.8	973.2	1120.7	1318.2
9	1202.7	1397.1	1581.5	1893.7
10	1613.6	1874.4	2071.4	2422.5
11	2043.9	2374.3	2500	2500
12	2338.2	2500	2500	2500
13	2500	2500	2500	2500
14	2500	2500	2500	2500
15	2500	2500	2500	2500
16	2500	2500	2500	2500
17	2500	2500	2500	2500
18	2500	2500	2500	2500
19	2500	2500	2500	2500
20	2500	2500	2500	2500
21	2500	2500	2500	2500
22	2500	2500	2500	2500
23	2500	2500	2500	-
24	2500	2500	2500	-

25	2500	2500	2500	-
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