

Wind turbine and inverter specifications

Tower Height	100'	55'	60'	50'
Tower Type	tilting guyed lattice	tilting guyed pole	tilting guyed pole	tilting monopole
Tower Manufacturer	Sentinel Power	Abundant Renewable Energy	Wellington Wind Turbines	Green Ridge
Connection type	grid-connected, net-metered, battery-charging	grid-connected, battery charging	grid-tie, net-metered	grid-tie, net-metered
Battery-charging	YES	YES	NO	NO
Inverter Manufacturer	None	None	Bergey	Southwest Wind
Charge Controller Manufacturer	Westwind	Bergey	None	None
Turbine Manufacturer	Westwind	Bergey	Bergey	Southwest Windpower
Turbine Model	5 kW	1 kW	Excel 10 kW	2.4
Turbine Type	Horizontal axis (HAWT), upwind	Horizontal axis (HAWT), upwind	Horizontal axis (HAWT), upwind	Horizontal axis (HAWT), downwind rotor with stall regulation control
Start Up Wind Speed	2 m/s	3 m/s	3.4 m/s	3.5 m/s
Cut in Wind Speed	3 m/s	2.5 m/s	2.5 m/s	3.5 m/s
Rated Wind Speed	14 m/s	11 m/s	12 m/s	13 m/s
Cut out wind speed	None	None	None	25 m/s
Furling Wind Speed	16 m/s	13 m/s	15.6 m/s	does not furl
Max. Design Wind Speed	50 m/s	54 m/s	60 m/s	63 m/s
Rated Power	5.5kW	1 kW	10 kW	2.4 kW
Rotor Speed (RPM)	120 - 750	490 (rated rotor speed, no range given)	310 (rated rotor speed, no range given)	50 - 330 rpm
Rotor Diameter (m)	5.1	2.5	7	3.72
Weight	200 kg	34 kg	476 kg	77 kg
Overspeed Protection	Auto tail furl	Auto tail furl, Electrical braking system	Auto tail furl	Electronic stall regulation with redundant relay switch control
Blade Material	Pultruded fibreglass	Pultruded fiberglass	Pultruded fiberglass	Fiberglass reinforced composite
Winding Type	3 Phase Star Connected	120V/60Hz, 230V/50Hz	3 phase delta PMA	240V/60Hz is a split phase unit. 208V/60Hz is a three phase unit.
Voltages available	48V, 96V, 110V, 120V	24 VDC	24V, 48V, 120V, 240V, 60hZ and 50hZ single phase	120/240 VAC split single phase, 60 Hz
Alternator		Permanent Magnet Alternator	Permanent magnet	Slotless permanent magnet brushless
Swept area (m sq.)	20.43	4.91	38.48	10.87