

Turbine

Configuration	3 blades, horizontal axis, downwind
Rated power @ 9.5 m/s	50kW
Applications	Direct grid-tie
Rotor speed	43 rpm
Cut-in wind speed	3.5 m/s (7.8 mph)
Cut-out wind speed	25 m/s (56 mph)
Survival wind speed	52 m/s (116 mph)
Overall weight	3 990 kg (8 800 lbs)

Rotor

Rotor diameter	19.2 m (63.0 ft)
Swept area	290 m ² (3120 ft ²)
Blade length	9.00 m (29.5 ft)
Blade material	Fiberglass/Polyester
Power regulation	Stall control (constant speed)

Generator

Type	Induction generator
Configurations	3φ, 400 VAC @ 50 Hz

Brake & Safety Systems

Main brake system	Rapid fail-safe dual mechanical brakes
Secondary safety	Pitch control system (for over-speed regulation) using passive, spring-loaded mechanism

Automatic shut down triggered by :	- High wind speed - Grid failure - Over-speed - All other fault conditions
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Controls

Control System	Programmable logic controller (PLC)
User interface	Wireless or wired network software interface for remote monitoring and control

Warranty

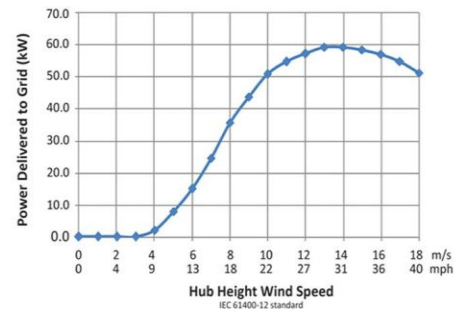
Turbine & controls	5 years parts and labour
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Towers

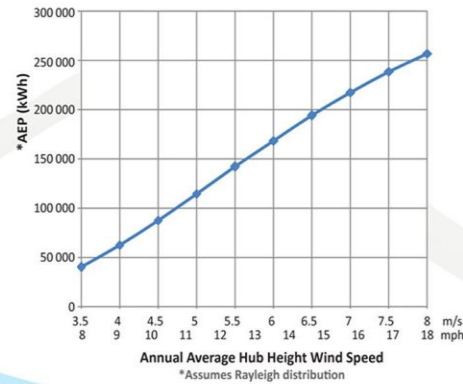
Types	Free-standing monopole: 24m (80ft) & 36.5 m (120ft)
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Maintenance access	Safe climbing system Working space inside the nacelle tower-top work platform
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Power Curve



Annual Energy Production (AEP)



Annual Average Hub Height Wind Speed (m/s)	Annual Energy Production (kWh)
3.5	40 100
4.0	62 500
4.5	88 000
5.0	114 900
5.5	142 200
6.0	168 900
6.5	194 300
7.0	217 700
7.5	238 800
8.0	257 200

Wind Speed Conversion Table

m/s	4	5	6	7	8	9	10	11	12	14
km/h	14	18	22	25	29	32	36	40	43	50
mph	9	11	13	16	18	20	22	25	27	31

www.aeoluspower.co.uk
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Endurance Wind Power uses 100% renewable energy at its head office and manufacturing plant

Approved distributors and installers
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E-3120 50kW Wind Turbine

The Endurance E-3120 wind turbine is designed to produce renewable energy efficiently, reliably, safely, and quietly. This turbine is ideal for larger farms, schools, hospitals, and commercial/industrial sites, and will produce 100,000 - 250,000 kWh per year in appropriate winds.

green energy that works

E-3120 Benefits

- Reduces the environmental footprint of your electrical energy supply
- Eligible for renewable energy credits
- Promotes community sustainability values
- Lowers and stabilizes energy costs
- Provides energy independence



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