microstrain
sustainable engineering solutions

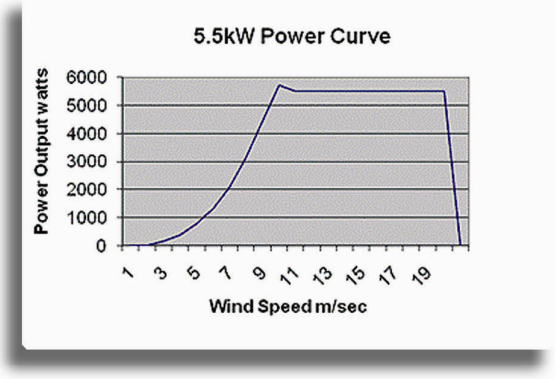
Hannevind 5.5kW Wind Turbine

This 5.5kW machine uses a highly effective 3-blade rotor design. The diameter of the rotor is 6m which maximises wind energy capture. Wind energy is converted to useful electrical power by the turbines extremely efficient and robust generator. The generator is asynchronous. This design feature provides an inbuilt safety function as the turbine will not operate without a grid connection. If a power failure occurs the turbines fail safe hydraulic brake is applied to protect the turbine from overrunning. The automatic braking system also activates if the turbine control systems recognise a fault or in the event of a storm.
The turbine starts to generate at approximately 3m/sec and reaches it rated power output at approximately 9m/sec. When the wind speed exceeds 12m/sec the turbine is yawed out of the wind by 450 and continues to deliver power. If the wind exceeds 20m/sec it is yawed 900 out of the wind and shuts down. In this situation the wind speed is monitored by the onboard anemometer every 15 minutes and the turbine remains in safety mode until the wind speed drops to a safe level.
The turbine can be mounted on either a lattice or monopole tower. Sites with average wind speeds of 5-6m/sec can expect to generate between 8000-10000kW/hrs per annum.

Turbine upwind horizontal axis	Rated power output 5.5 kW
Annual power supplied	10000 kWh (at 6m/s avg. wind speed)
Product life	20 years (minimum)
Generator	Asynchronous
Rotor	6m fibreglass blades
Mast	Mono pole or Lattice Tower
Cut in speed	2-4 m/s
Acoustic emissions	< 40bB
Grid connection	EN 50438 Compliant
Optional extra	Online Power Output Monitoring
Warranty & Maintenance	Free 2-Year Warranty and Maintenance
Country of manufacture	Sweden

Wind turbine services offered by Microstrain:

- Sizing of turbine (our range is from 1.5 kW to 45kW)
- Wind speed calculations
- Site assesment and planning advice
- Advice on tariffs and financial rationale
- Full installation and maintenance service
- Complete set of drawings for foundation, mast and electrical configuration



Please contact John Delany (086 8141208) or Ivan McFadden (087 6885234) for a quote or advice.
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www.microstrain.ie