freen

Freen-H20

Horizontal Small Wind Turbine

High Return on Investment

Competitive pricing combined with excellent annual energy production (AEP) ensures a cost-effective solution.

Quiet & Efficient

Operates at a low rotation speed, minimizing noise and ensuring a smooth energy supply.

Low Maintenance & Easy Servicing

Requires only a simple service check every two years, reducing operational costs.

Advanced Safety Features

Equipped with a fail-safe tip brake and a spring-applied electromagnetic rotor brake for reliable operation.

The **Freen-H20** is built for durability and efficiency, making it an excellent choice for those looking to invest in sustainable, long-term wind energy.

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The Freen-H20 is a 20 kW Class II horizontal-axis small wind turbine.

Designed for households, farms, and small businesses seeking a reliable renewable energy solution, it efficiently harnesses wind power to deliver strong energy yields.

freen – your wind, your power, your way

FREEN-H20

20 kW Wind Turbine

Technical specifications

Rated power, (kW)	20
Cut-out wind speed, (m/s)	25
Survival wind speed, (rpm)	51
Wind class	IEC II
Swept area, (m^2)	177
Blades	3, fixed angle, upwind
Rotor diameter, (m)	15
Tower	Lattice, Monopole, 18-36 m
Generator	Asynchronous, planetary gearbox
Brakes	Stall, electro mechanic failsafe rotor brake, tip-brakes
Grid connection	Direct with reactive power compensation
Standard	IEC 61400-2:2013 - Small wind turbines
Operating temperatures, (C°)	-25 to +40
Remote monitoring	4G or Ethernet (Scada)
Lifetime, (years)	20

AEP (Annual Energy Production)

Wind speed (m/s)	AEP (kWh)
3.5	26300
4	35000
4.5	43800
5	52400
5.5	60500
6	68000
6.5	74900
7	81000
7.5	86600
8	91500
8.5	95900
9	99700
9.5	103000
10	106000

AEP is based on a Rayleigh wind speed distribution, K=2, t=15°C, P=1013 mbar, ρ=1.225 kg/m^3

Contact us

Description

The main parts of the wind turbine are foundation, tower and nacelle with rotor and tail, electric panels and cables necessary for energy transfer and turbine control. Wind turbine has free yaw with tail. The turbine rotation speed is constant. For safe operation blade tip-brakes will activate with rotor over speed and mechanical rotor brake is used to stop the rotor. All these methods allow for safe operation and control of the turbine.

Yearly maintenance – visual check of general condition, slew bearing, gearbox bearing and generator bearings greasing.

Every 2 years – gearbox oil change, slew bearing, gearbox bearing and generator bearings greasing.

The product specifications are provisional and subject to change at any time due to improvements or other reasons.