



Aeolos-H 20KW

windturbinestar.com



Turbine

Rated power 20 kW Max Power 25kW

Cut-in wind speed 3 m/s (6.7 mph)
Rated Wind speed 10m/s (22.3 mph)
Survival wind speed 50m/s (111.5 mph)

Design lifetime 20 years

Overall weight 820kg (1807.8lbs)

Rotor

Rotor diameter 10.0 m (32.8 ft) swept area 78.5m² (844.5ft²) Rotor speed 90 rpm Blade material Fiber Glass

Generator

Drive Type Direct Drive (Without Gearbox)
Generator Type Permanent Magnet Generator

Generator Voltage 100V - 380V

Efficiency 95%

Controller

Control System PLC with Touch Screen

Remote Monitoring Optional

Safety

Main Brake System Yaw Control & Electronic Brake
Secondary Brake System Mechanical Hydraulic Brake

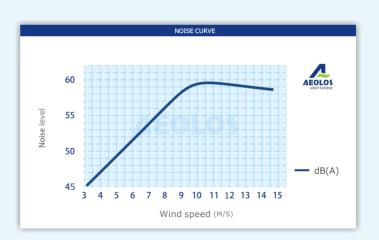
Tower

Monopole Tower 18m 24m 30m Hydraulic Tower 18m 24m

Warranty

Standard warranty 5 years





Aeolos-H 20kW Wind Turbine Output								
Wind Speed(m/s)	3	4	5	6	7	8	9	10
Generator Power(w)	616	2202	3500	5098	7200	10210	13640	19800
Annual Energy Output(kwh)	5395	19288	30660	44659	63072	89440	119494	173448



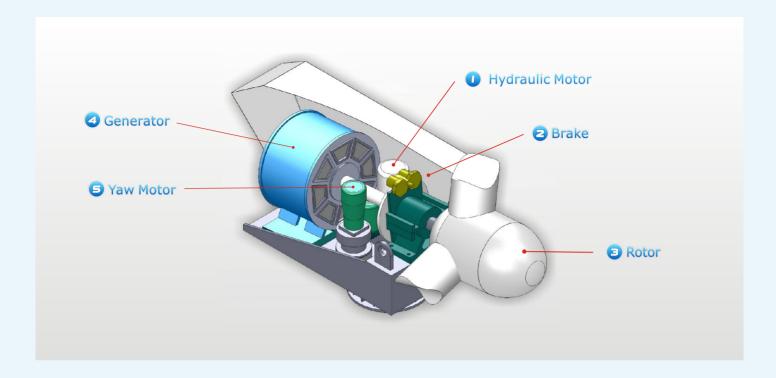






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Why Choose AEOLOS-H 20kW Wind Turbine?

Triple Safety & Brake Protection

Yaw Control: PLC controller will control the yaw motor to deviate wind turbine from the wind direction at an angle of 30 degrees, 60 degrees or 90 degrees when it detects the faults of over wind speed, over voltage or generator over temperature.

Electronic Brake: Aeolos-H 20kW has a 30kW dump load box and uses PWM technology as the electronic brake control. PWM could control the over voltage and turbine over speed smoothly.

Mechanical Brake: As the secondary protection system, mechanical brake was driven by high quality German hydraulic station. It could stop the wind turbine rotor in over speed, over voltage, over temperature or grid failure.

High Efficiency & Reliable Design

Aeolos-H 20kW uses a directly driven generator without gearbox or booster device. The generator is directly driven by blade rotor. It has 30% more power output than induction generator at the same wind speed.

The directly driven design is more reliable than the induction generator with gearbox. All of the mechanical and electronic components choose the best quality manufacturers like SKF, ABB and Omron. All of designs follow the less or free maintenance principles.









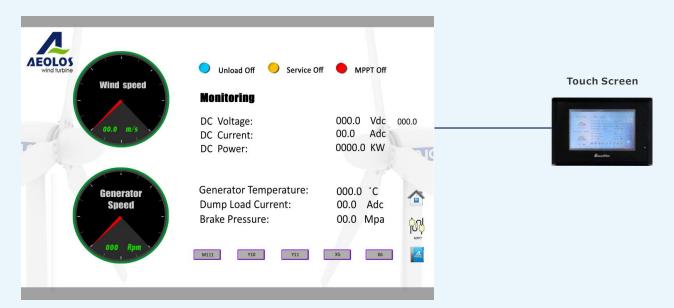




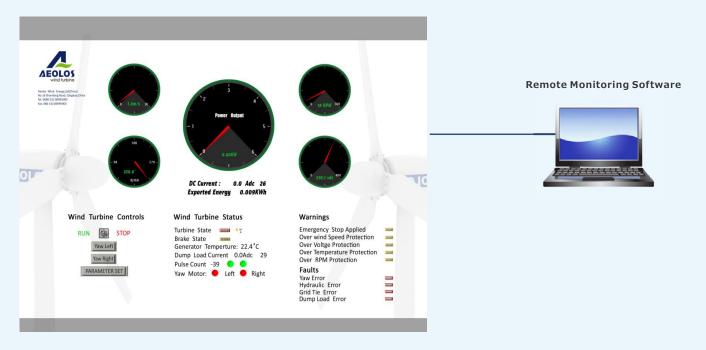
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Intelligent Control & Remote Monitoring

Aeolos employs Programmable logic controller (PLC) and touch screen as the control system. All the operation data like wind speed and power output can be recorded and customer can easily adjust the protection data of wind speed, voltage, current and rpm through controller.



Aeolos provides remote monitoring function to the customers. You can remotely monitor and control the wind turbine operation through wireless or wire internet in home, office, airport and anywhere.



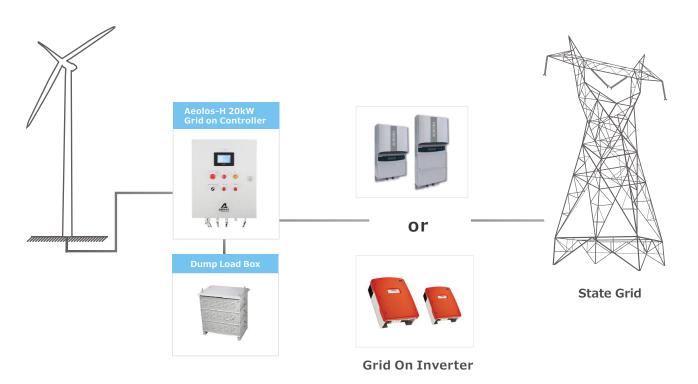




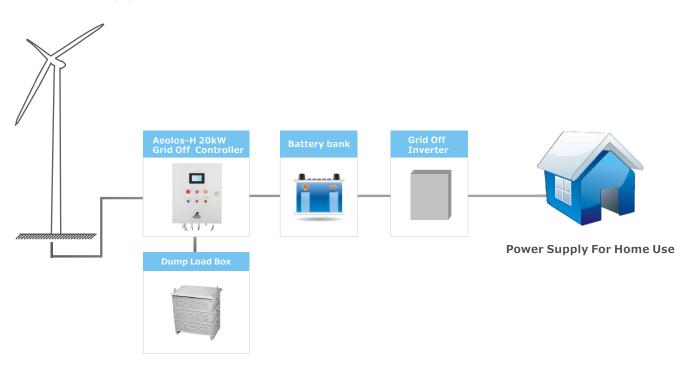
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Wire Diagram

Grid-on



Grid-off



Aeolos Wind Energy,Ltd (UK)







