

ecosolutionitalia

Soluzioni Energetiche Innovative



EOLO-H 20 kW
wind turbine

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Eolo-H 20 kW wind turbine



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Turbine

Rated power	20 kW
Max Power	27.5 kW
Cut-in wind speed	3 m/s (6.7 mph)
Rated Wind speed	11.5 m/s (25.7 mph)
Survival wind speed	50 m/s (111.5 mph)
Design lifetime	20 years
Overall weight	820 kg (1807.8 lbs)

Rotor

Rotor diameter	10.0 m (32.8 ft)
swept area	78.5 m ² (844.5 ft ²)
Rotor speed	90 rpm
Blade material	Fiber Glass

Generator

Drive Type	Direct Drive (Without Gearbox)
Generator Type	Permanent Magnet Generator
Generator Voltage	360 VDC (Grid-off) 450 VDC (Grid-on)
Efficiency	95%

Controller

Control System	PLC with Touch Screen
Remote Monitoring	Optional

Safety

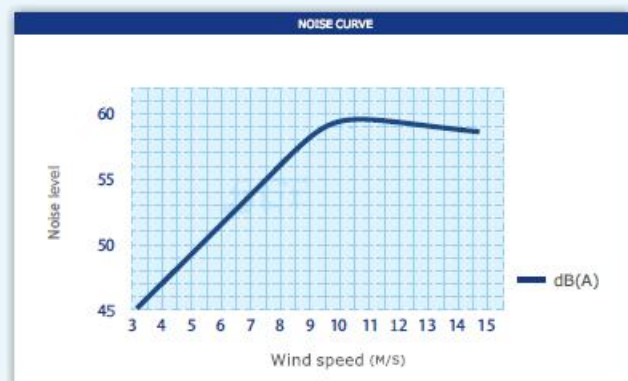
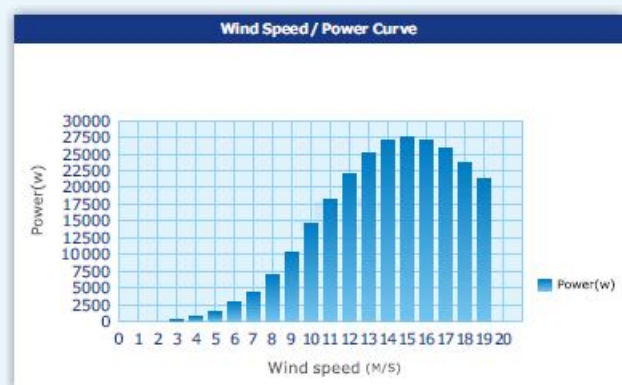
Main Brake System	Yaw Control & Electronic Brake
Secondary Brake System	Mechanical Hydraulic Brake

Tower

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

Warranty

Standard warranty	5 years
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eolo -H 20kW Wind Turbine Output									
Wind Speed(m/s)	3	4	5	6	7	8	9	10	11
Generator Power(w)	295	745	1550	2750	4500	6950	10250	14500	18500
Annual Energy Output(kwh)	5992	11747	23083	38544	59130	85235	116727	152424	194472

5 YEAR WARRANTY

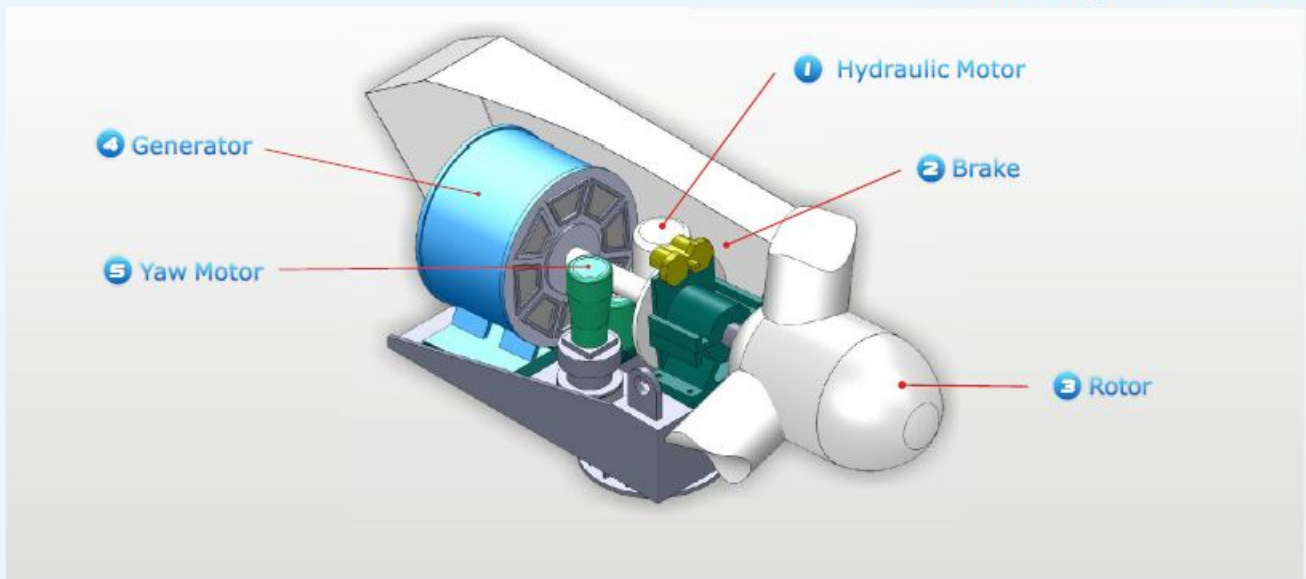


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Why Choose EOLO-H 20kW Wind Turbine?

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.

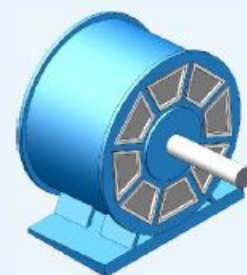
Electronic Brake: eolo -H 20kW has a 30kW dump load box and uses PWM technology as the electronic brake control. PWM could control the over voltage and turbine over speed smoothly.

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

eolo -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.



5 YEAR WARRANTY



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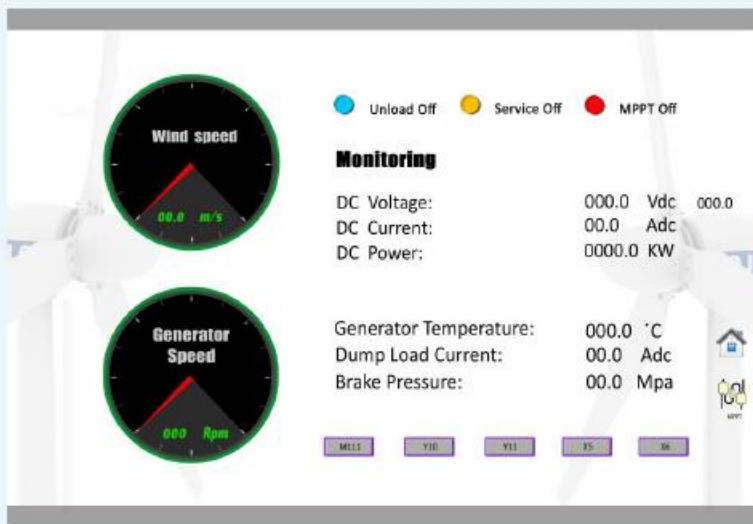
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Intelligent Control & Remote Monitoring

eolo 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.



Touch Screen



eolo 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.



Remote Monitoring Software



5 YEAR WARRANTY



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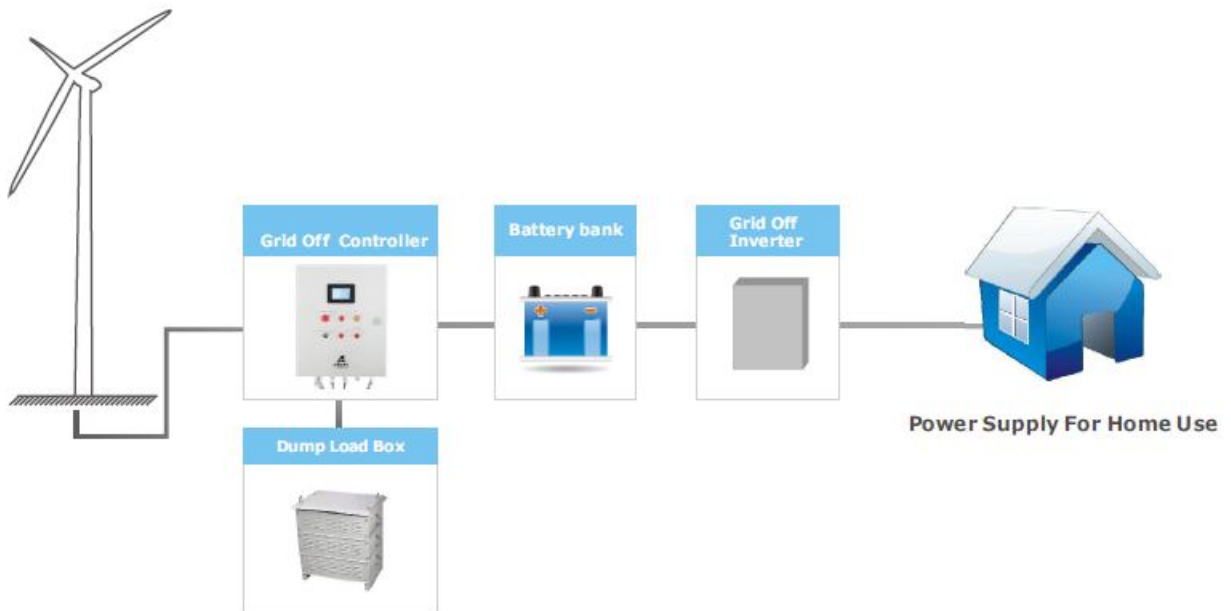


Wire Diagram

Grid-on



Grid-off



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5 YEAR WARRANTY  