



WES100

'Bringing renewable energy everywhere'

The WES100 is a two bladed, high performance, reliable 100 kW midsize wind turbine with a rotor diameter of 18 meters. The mechanical part of the WES100 is based on the original proven design from 1983. For the electrical part, power conversion and control, the latest technology is used.

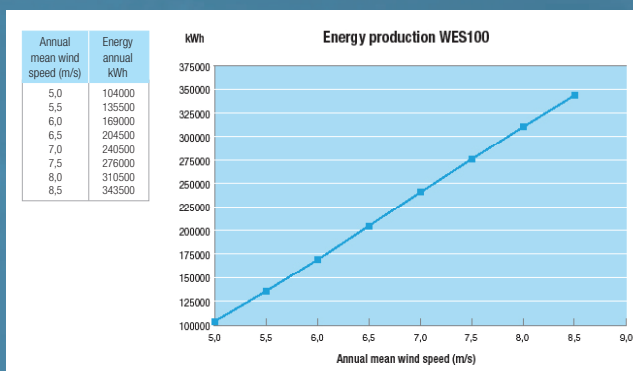
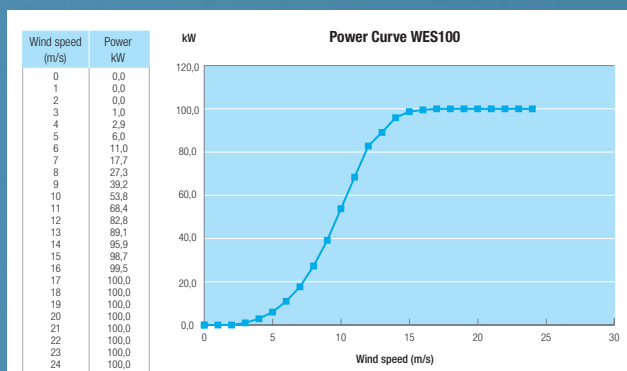
The WES100 is also available as Hybrid Wind/diesel system.



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TECHNICAL SPECIFICATIONS



GENERAL

Life expectancy: Minimum 20 years
 Rated power: 100 kW
 Cut in Wind speed: < 3 m/s (6.7mph)
 Cut out Wind speed: 25 m/s (56mph)
 Rated wind speed: 13 m/s (28mph)
 Survival wind speed: 60 m/s (134mph)
 Wind class: II
 Yawing: Active
 Passive power regulation: Blade-angle adjustment
 Active power regulation: Fully variable back-to-back IGBT system
 Towers heights: 18 m, 24 m, 30 m (31 m lattice)
 Number of blades: 2
 Rotor diameter: 18 m
 Noise emission at 8 m/s: 45 dB(a) at 100 m
 Operating temperatures: from -20°C up to + 40°C

ELECTRICAL

Power: 100 kW
 Voltage: 400V/50Hz 3 phase + neutral or
 400V/60Hz 3 phase + neutral
 Connection: grid connected / Hybrid
 Converter: back-to-back inverter (IGBT)

MATERIAL SPECIFICATIONS

Blades: carbon and glass fibre reinforced epoxy
 Nacelle: steel
 Cover: polyester
 Tower: steel (hot dip galvanized)
 Foundation: concrete block with anchor

WEIGHTS

Blade assembly: 110 kg per blade
 Rotor: 900 kg
 Nacelle incl. Rotor and blades: 3.300 kg

KEY COMPONENTS

Generator: ABB
 Gearbox: Siemens
 Converter: Control Techniques (Emerson)

APPLIED STANDARDS

Degree of protection: IP55
 Complies with standards: NEN1010 (electrical), EN50308 (safety), EN6096 (wind turbines)
 UI1741, G59/2 (anti Islanding), IEC61346-2000 (Cabinet)
 CE-mark: yes

