



WES I 8 80kW Wind Turbine

PRODUCT DATASHEET



The WES I 8, known as the “farmer’s turbine”, has the reputation of being durable and reliable. The two-bladed rotor has a unique hinge system and a passive blade-angle adjustment. This unique mechanism needs very little maintenance. Over 600 units have been installed at (agricultural) businesses, small communities and on coastal and mountainous sites. It’s weight and size allow for easy installation at difficult and remote locations.

With the WES I 8 connected to your farm, business, school, golf club, resort or any other location, you can harvest the wind and generate your own green energy. This powerhouse can produce an average of 180,000 kWh/year of reliable and renewable energy (depending on the wind availability). It takes little imagination to see the substantial dividends from payment schemes and the enormous reduction possible in your electricity bill!

STATE OF THE ART

The WES I 8 is equipped with a “State-of-the-Art” control cabinet with IGBT converters and a user and maintenance friendly IPC interface. The control system has effective functions, including dynamic output control. It assures high power quality and low harmonics and enables secure operation, even in weak grids. A Remote Monitoring System is available. The WES I 8 is also available as a stand-alone or Hybrid Wind/Diesel system with a lattice tower.

FEATURES

- IGBT control cabinet
- IPC user interface
- Hinged blades
- Low weight and height
- Mechanical design
- Unique mechanical rotor

BENEFITS

- weak grid corrective capability
- fully automatic functions/user friendly
- low stress loads on the drive train
- easy transport and installation
- low maintenance
- optimum reliability



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GENERAL SPECIFICATIONS

Supplier / manufacturer	WES BV
Life expectancy	minimum 20 years
Service maintenance	twice a year
Nominal Power	80 kW
Cut in wind speed	< 3 m/s - 6,7 mph
Cut out wind speed	25 m/s - 56 mph
Nominal wind speed	12 m/s - 27 mph
Survival wind speed	60 m/s - 134 mph
Yawing	active yawing
Passive power regulation	blade angle adjustment
Active power regulation	fully variable back-to-back system
Hub height	18 - 30 - 40 m
Number of blades	2
Rotor diameter	18 m
Noise emission at 8 m/s	45 dB(a) at 100 m.

ELECTRICAL SPECIFICATIONS

Power	80 kW
Voltage	400V/50Hz 3 phase or 400V/60Hz 3 phase
Connection	grid connected
Converter	back-to-back inverter (IGBT)

APPLIED STANDARDS

Degree of Protection	IP55
According	NEN1010 & NEN6096
First safety	passive blade pitch
Second safety	yawing out of the wind

GENERATOR

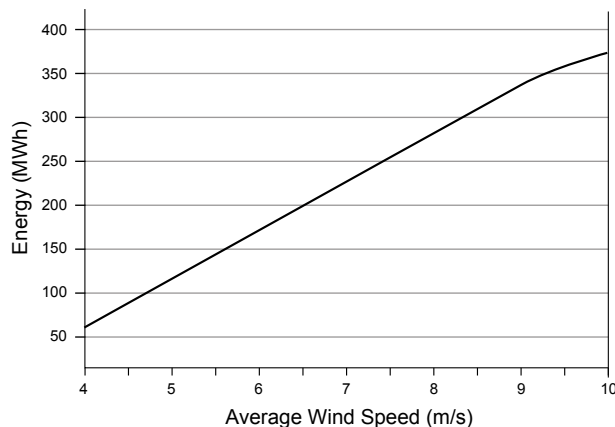
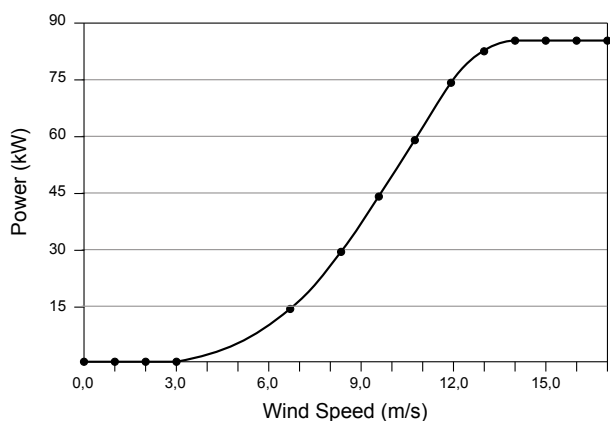
Type	a-synchronous
Number of poles	4
Frequency variable	25 – 80 Hz

WEIGHTS

Blade	86 kg
Rotor	900 kg
Nacelle incl. rotor	3.000 kg
Tower: 30 m.	8.020 kg
Tower: 40 m.	9.400 kg

MATERIAL SPECIFICATIONS

Blades	carbon fibre reinforced epoxy
Blade length	7.8 m
Tower	steel: tubular or lattice
Foundation	concrete block with anchor or tube
Corrosion protection	galvanised steel and other non corrosive materials.



For sales, surveys, installation and servicing contact:



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