

DW61 1MW



**MORE ENERGY
LESS COMPLEXITY**

The NEW DIRECTWIND-1MW with 61 m rotor

The DW61–1MW builds on the advantages of EWT’s market leading DW54. The DW61 significantly increases kWh output through a larger rotor diameter, which is the result of the latest blade design aerodynamics and advanced control technologies. The DW61 is designed for wind class IEC IIIA conditions and retains the tip heights of 76.5 and 99.5 meters, which have proven favourable to planning authorities.

Direct drive technology for optimum reliability

EWT offers a wide product range based on direct drive technology with a high yield and low cost of energy. The combination of proven direct drive technology and advanced control features makes EWT’s DIRECTWIND a first-class choice for energy yield and reliability.

In the DIRECTWIND turbines, the rotor directly drives the synchronous generator without the use of a gearbox. Eliminating the gearbox means that the number of rotating components is reduced and therefore, the wear and tear on the parts, leading to lower maintenance.

Perfect for weak grids and micro grids

Energy generated from the turbine is fed into the grid via a modern back-to-back full-power converter, which controls the power output.

Specifications:

Rotor diameter:	61 m
IEC wind class:	IIIA
Rotor speed variable:	8 - 29 rpm
Nominal power output:	1000 kW
Hub heights:	46 and 69 m
Cut-in wind speed:	3 m/s
Rated wind speed:	14 m/s
Cut-out wind speed:	25 m/s, 10 min. avg.
Survival wind speed:	52.5 m/s
Power output control:	Pitch controlled
Generator:	Synchronous multi-pole
Power converter:	IGBT-controlled

In addition, the turbine has a number of programmable functions, such as a capability to adjust the power factor and a capability to automatically control the voltage in order to comply with stringent grid requirements. This makes our turbine suitable to operate in weak grids and micro grids. The perfect choice for single wind turbine applications, behind the meter off-setting brown power, and demanding locations where specific environmental demands must be met.

Co-generation

The flexibility that the direct drive and back-to-back full-power converter technology offers, makes the turbine highly suited for integration with other generation sources such as hybrid/diesel/solar/hydrogen power systems.

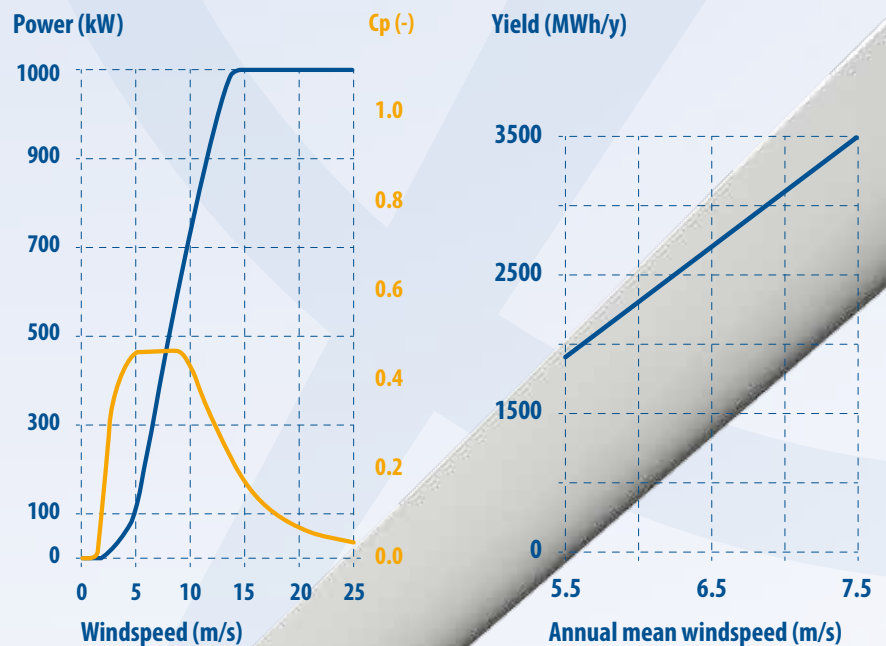
Suits medium and low wind regimes

Much of the world’s turbine demand is in low-medium wind areas (IEC class II and III). EWT’s turbines are designed to maximize yield from such sites relative to other turbines in our capacity range. This enables wind project owners to achieve high yields and, therefore, more attractive financial returns, even at sites with low wind conditions.

DW61 - 1MW wind turbine

The new DIRECTWIND 61–1MW is an optimized pitch controlled variable speed wind turbine that combines continuous market driven innovation with highly advanced and proven direct drive technology.

Power Curve:



Advantages of EWT's NEW DW61 - 1MW:

- ⊗ High energy yield
- ⊗ High return on investment
- ⊗ High availability
- ⊗ Low costs of ownership
- ⊗ Low noise emissions
- ⊗ Friendly to weak grids

DW61 1MW

Individual pitch control :

Reducing the loads on the main turbine components.

New rotor blades:

Latest aero dynamical design, resulting in high efficiency and low noise levels.

Direct drive:

Fewer rotating parts reduce mechanical stress, leading to a lower maintenance need and therefore superior availability levels.

Redesign nacelle:

Improved spacious nacelle design for easier servicing at maximum health and safety standards.

New tower design:

In accordance with the latest IEC standards.



DSP - DIRECTWIND Service Program

EWT stands for high-quality direct drive turbines characterised by reliability and cost efficiency. To ensure optimal performance and trouble-free operation of our DIRECTWIND turbines, we offer an extensive service and maintenance program.

The DIRECTWIND Service Program offers:

- ⊗ Preventive maintenance
- ⊗ Power curve guarantee
- ⊗ Corrective maintenance
- ⊗ Extended product warranty
- ⊗ Availability guarantee
- ⊗ Business Interruption compensation

EWT's remote monitoring strength

All DIRECTWIND turbines that have been installed worldwide are monitored 24/7 from EWT's headquarters in Amersfoort, The Netherlands. Our highly experienced, professional staff, together with a modern and efficient control room and innovative turbine analysis software, contribute towards the high availability of our turbines.



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