

RISE ABOVE

AW3000



> The Nordex Group has seen explosive growth of orders for its AW3000 platform. This success is due to a track record of reliability and product innovation coming from one of the most experienced wind energy companies in the world. The latest evolutions are the AW140 for light-wind locations in addition to uprating options to 3300 kW for certain configurations. Partner with the Nordex Group to make your projects rise above the competition.

OPTIMIZED PERFORMANCE FOR ALL SITES

- Full suite of configuration options covering all wind conditions
- Steel and concrete tower options with hub heights from 80 to 137.5 meters
- Proven and bankable designs including double-bearing support on main shaft, glass fiber and epoxy blades and DFIG electrical generation

BUILT BY OPERATORS FOR OPERATORS

- Based on a scaled design of our successful AW1500, the AW3000 provides more energy capture per wind turbine location
- Our track record of fleet wind turbine performance includes global average availability over 98% and extremely low failure rates of major components

COMPATIBILITY & CONTROL

- Zero voltage ride-through beyond current regulatory requirements, in addition to grid integration and reactive power solutions to allow for maximum control for stringent grid codes
- Control software that allows intelligent automatic monitoring and operation

SAFETY

- Hydraulic pitch control for safe and reliable blade pitching in all wind environments
- Two-person lift; hub access from inside the nacelle; and spacious, ergonomic nacelle design allow for operational efficiency

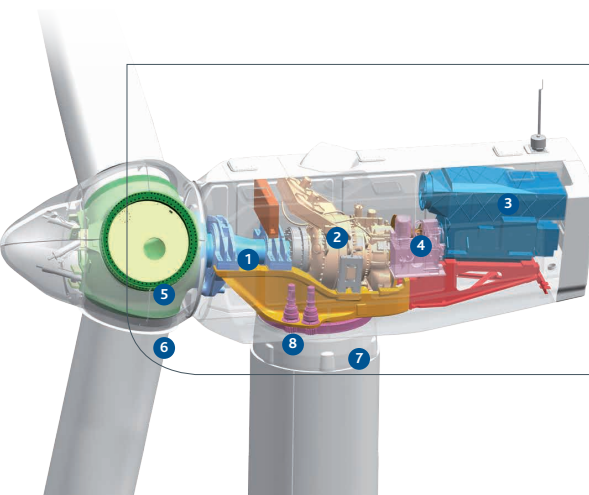
12 KV VERSUS 690 V

- This configuration, proven in our wind turbines, can remove the step-up transformer from the equation and is ideal for projects that are in close proximity to the substation
- The result is significant savings over the life of the project
- Up to 50% savings in collection system costs
- Average of 1% greater energy productions due to the avoidance of transformer electrical losses
- Avoidance of maintenance and potential failures of transformers

AW3000 DESIGN ADVANTAGES

- 1) Double bearing-supported main shaft
- 2) Robust gearbox with HALT completed
- 3) 6 pole DFIG 12 kV generator
- 4) Elastic coupling
- 5) Cast hub with access from nacelle
- 6) Blades with structural shell design and proven materials including glass fiber and epoxy resin
- 7) Steel and concrete tower options from 80 m to 137.5 m hub heights
- 8) Yaw bearing and caliper brakes

AW 100 | AW 116 | AW 125 | AW 132 | AW 140
AW3000



AW3000

TECHNICAL SPECIFICATIONS

MODEL	AW 100	AW 116	AW 125	AW 132	AW 140
Rotor diameter	100 m	116 m	125 m	132 m	140 m
Wind class	IEC Ia	IEC IIa	IEC IIb	IEC IIb	IEC S
Power	3000 kW	3000 kW	3000-3300 kW	3000-3300 kW	3000 kW
Turbine suitability	Strongest wind sites	Strong-wind and turbulent sites	Moderate to strong wind sites with low turbulence	Moderate wind sites with low turbulence	Light-wind sites

OPERATING DATA

Cut-in wind speed	4 m/s	3.5 m/s	3.5 m/s	3 m/s	3 m/s
Cut-out wind speed	25 m/s	25 m/s	25 m/s	25 m/s	20 m/s
Cold Weather Operational Temperature range (Optional)	-30°C to +40°C				
Power factor range	+/- 0.93 (1,200 kVA) dynamic between +/- 5% p.u. voltage				
Zero voltage ride through	Meets or exceeds global requirements				

ROTOR

Swept area	7,854 m ²	10,568 m ²	12,305 m ²	13,720 m ²	15,431 m ²
Power regulation	Independent pitch regulated with variable speed				

DRIVE TRAIN

Gearbox	3 stages: 2 planetary, 1 parallel (helical)				
Bearings	Double spherical roller bearings				
Lubrication	Pressure and splash with oil cooler/oil filter				

PITCH SYSTEM

Actuation	Hydraulic cylinders				
Failsafes	Blade-independent piston accumulators on hub				

YAW SYSTEM

Type	Four-point ball bearing, external gear				
Slewing ring	External				
Braking system	Disk+callipers, plus electro-mechanical brake per motor drive				

GENERATOR

Type	6 poles, double feeding				
Frequency	50/60 Hz				
Nominal voltage	12,000 V (able to eliminate step-up transformers depending on wind farm layout)				

TOWER

Steel hub height options (m)	-	92	87.5	84, 112.5	82 and custom
Steel tower number of sections	-	4	3, 4	4, 5	4
Concrete hub height options (m)	100	100, 120	80, 100, 120, 137.5	120, 137.5	120
Concrete tower number of sections	5	5, 6	4, 5, 6, 7	6, 7	6

NACELLE

Weight (tons)	108 t (without hub)				
Dimensions	10.9 m (length) 4.09 m (width) 4.15 m (height)				
Transportability	Four options (split nacelle), and rail capable				

LIFE AND HOIST CAPACITIES

Service lift capacity	250 kg				
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