



Nordic Windpower Ltd

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N1000 Technical Data	54 m rotor	59 m rotor
GENERAL		
Nominal power	1000 kW	1000 kW
Rated wind speed	16 m/s	16 m/s
Operational range	4-25 m/s	4-22 m/s
Certification	DNV Design to IEC Class IIb	DNV Design to IEC Class IIIa
Extreme wind speed	59.5 m/s	52.5 m/s
Control principle	Stall	Stall
WIND TURBINE		
Rotor diameter	54 m	59 m
Number of blades	2	2
Rotor orientation	Upwind	Upwind
Rotational speed	25 rpm	21.5 rpm
Blade tip speed	71 m/s	66 m/s
Blade material	GRP/Carbon	GRP/Carbon
Type of hub	Teeter	Teeter
Teeter bearing	Elastomeric	Elastomeric
BRAKING SYSTEMS		
Aerodynamic blade tip brakes		
Hydraulic disc brake on rotor shaft		
GEARBOX		
Type	2 planetary & 1 stage helical, integrated turbine bearings	2 planetary & 1 stage helical, integrated turbine bearings
Gear ratio	1:62	1:87
Cooling	heat exchanger	heat exchanger
GENERATOR		
Rating	1,000 kW	1,000 kW
Type of generator	4-pole induction	4-pole induction
Voltage	600 V / 690 V	600 V / 690 V
Environmental Protection	NEMA3/IP54	NEMA3/IP54
Cooling	Liquid (glycol-water)	Liquid (glycol-water)
Power factor	0.98 at 100% power	0.98 at 100% power
YAW SYSTEM		
Hydraulic drive motors		
TOWER		
Hub height	60 m or 70 m available	60 m or 70 m available
Diameter top/bottom	1.9/3.0 m	1.9/3.0 m
Type	Welded steel tube, painted	Welded steel tube, painted
Number of tower sections	2	2
Tower weight	47 tonnes (60 m tower), 58 tonnes (70 m tower)	47 tonnes (60 m tower), 58 tonnes (70 m tower)
CONTROL SYSTEM		
Distributed control system		
IEC 61131-3 compliant turbine controller		
SCADA system		
WEIGHTS		
Nacelle, with hub	37 tonnes	37 tonnes
Blades (each)	4 tonnes	4 tonnes
NOISE LEVEL		
Less than 104 dB(A) at 8 m/sec		
IEC 61400-11 compliant		