

Technical Specifications

ROTOR

Diameter	77 m
Number of blades	3
Swept area	4657 square meters
Rotor speed range	11.1~18.1 rpm
Rated rotor speed	18.1 rpm
Rotational direction	Clockwise looking downwind
Rated tip speed	75 m/s
Orientation	Upwind
Speed regulation	Pitch control
Aerodynamic brakes	Full feathering

BLADES

Material	Fiberglass and polyester resin
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PITCH SYSTEM

Principle	Independent blade pitch control
Actuation	Individual electric drive
Pitch drives	Planetary gearbox, DC motor
Pitch bearing	Ball bearing

HUB

Material	Cast ductile iron
Corrosion protection	Sandblasted & multi-layer coated

DRIVE TRAIN

Mechanical power	1600 kW
Gear ratio	1:120
Cooling	Oil pump with oil cooler
Fluid capacity	300 liters
Operation speed at rated power	2160rpm

GENERATOR

Rated power	1500 kW
Rated speed	2160rpm
Rated voltage	690 V
Rated frequency	60 Hz
Protection class	IP 54
Insulation class	F
Synchronous speed	1800 rpm
Cooling system	Air cooled

TOWER

Type	Tubular steel
Sections	3
Nominal Hub heights	80 m

YAW SYSTEM

Number of yaw drives	4
Actuation	Electrical
Yaw rate	0.5 degree per second
Motor type	Asynchronous, 6 pole, and 1200 rpm
Voltage / frequency	690V/60Hz
Yaw bearing	Dual ball bearing

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CPC FD- 7X – 1500 Wind Turbine



Technical Specifications

CONTROL SYSTEM

Type	Custom
Protection class	IP 20

OPERATIONAL LIMITS

Height above sea level	Maximum 1000m
Minimum standard ambient temperature (operational/survival)	-15°C / -20°C
Maximum standard ambient temperature (operational/survival)	+40°C / +50°C
Wind conditions acc. IEC S for the standard temperature range	8.5 m/s @ 18 % turbulence
Maximum extreme gust (3 s) for the standard temperature range	55 m/s



OPERATIONAL LIMITS

1.5 MW WIND TURBINE POWER CURVE - RATED AT SEA LEVEL

