



## Reliability. Performance.

With 4,000 employees and market capitalization of over \$300 million, CPC is a highly regarded technological conglomerate in Changzhou, China. Since launching a wind turbine subsidiary in 2005, CPC has invested millions of dollars in research and development, and in a state-of-the-art, ISO 9001-certified, manufacturing facility. With a commitment to uncompromising quality and service, CPC's powerful 1.5-megawatt turbines quickly became known for reliability and performance.

## Proven Technology. Value.

The same proven technology is now available in the United States, where Dallas-based Soaring Wind Energy is CPC's authorized representative. Working with Chinese partners since 1995 uniquely qualifies Soaring Wind Energy to help CPC meet the needs of U.S. wind farm developers with confidence, timeliness and value. Per kilowatt hour, CPC wind turbines produce a significantly-higher internal rate of return than competing turbines and are available for delivery in the third quarter of 2009.

## Guaranteed.

CPC and Soaring Wind Energy stand behind their wind turbines with a comprehensive, two-year warranty, a 95 percent production guarantee, and a 95 percent availability guarantee. Each commitment is fully backed by a letter of credit from a U.S. bank.

## Certified.

- CPC turbines are DEWI-certified with G/L currently pending.
- CPC's manufacturing facility has obtained ISO 9001 and DIN6700 International Welding Certifications.

## Available.

*Deliveries, in most cases, can be expected within eight months of the contract signing date.*



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## 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

