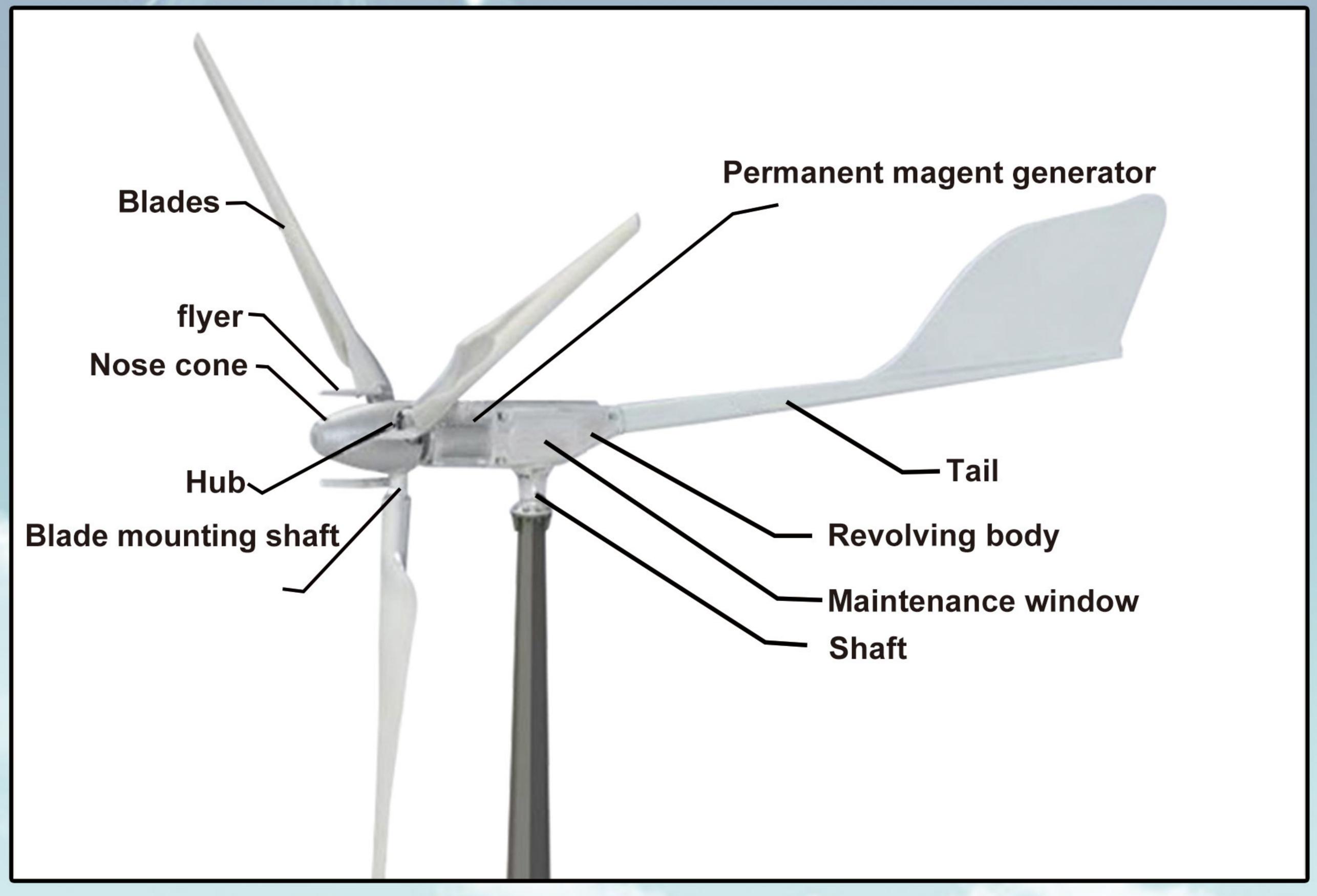


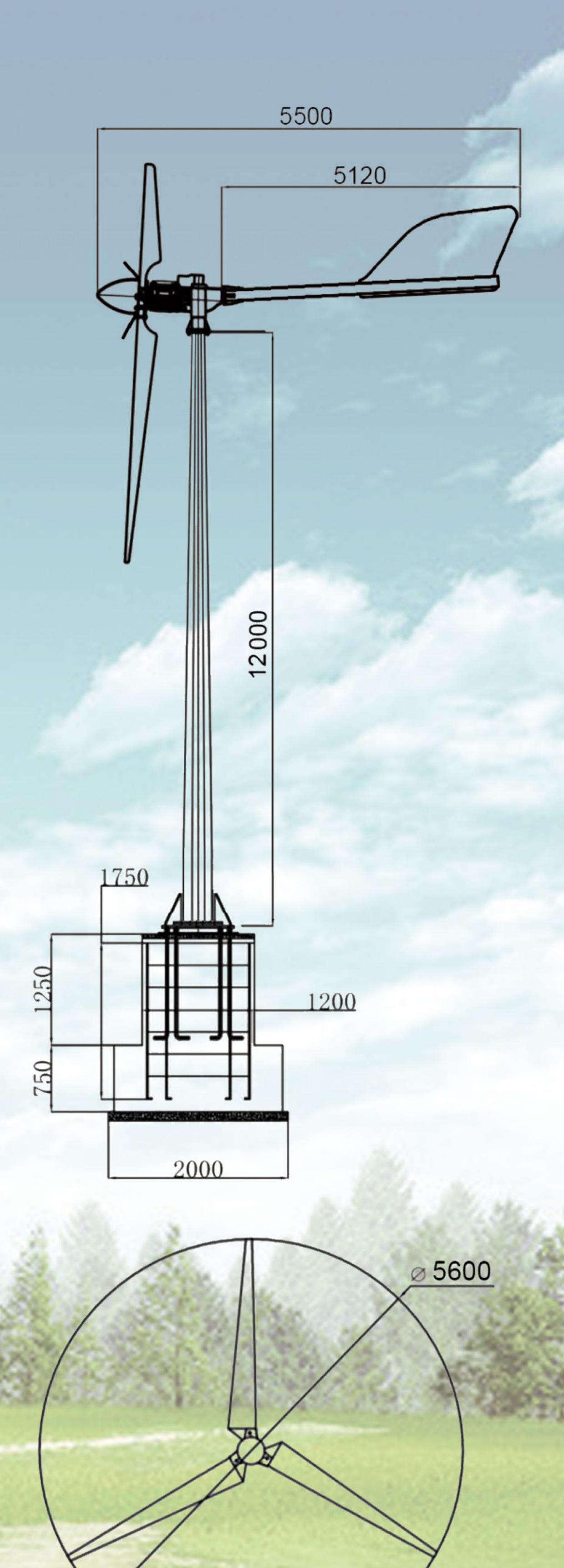
5KW





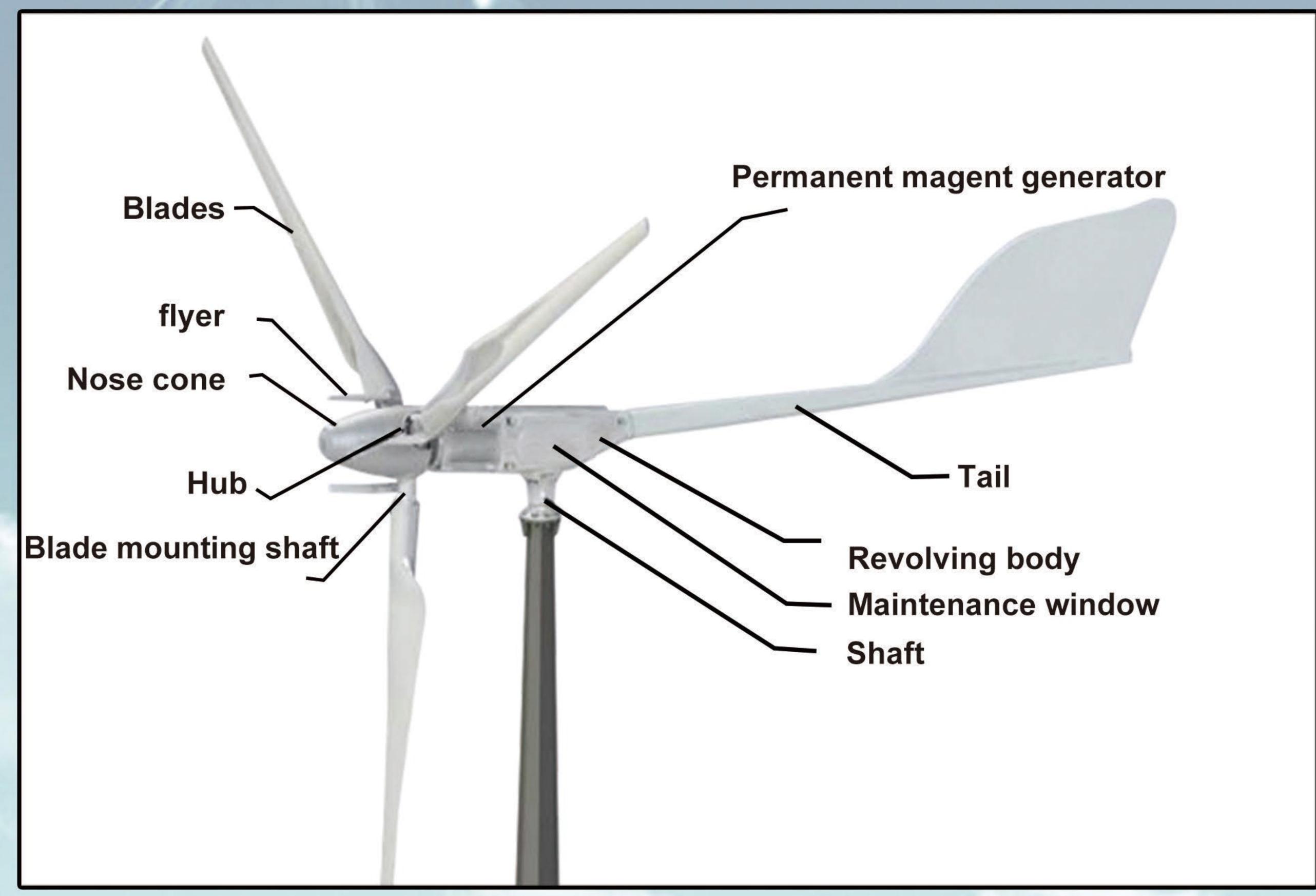
AH-5KW Parameter

Model	AH-5KW
Performance	
Rated Power	5kW
Max Power	6kW
Start Wind Speed	2.5m/s (5.59mph)
Rated Wind Speed	10m/s(22.4mph)
Working Wind Speed	3-30m/s (6.71-67.2 mph)
Safety Wind Speed	60m/s(133.8mph)
Physical Parameters	
Blades Length	2.5M(8.2ft)
Blades Rotor Diameter	5.6M(18.37ft)
Blades Material & Quantity	FRP /3PCS
Mill Weight	400kg
Swept Area	24 m²
Tower Height	≥8, Hot dip galvanized
Tower Height Generator Parameters	≥8, Hot dip galvanized
	≥8, Hot dip galvanized 240 RPM
Generator Parameters	
Generator Parameters Rated Speed	240 RPM
Generator Parameters Rated Speed Rated Working voltage	240 RPM DC400V/DC240V
Generator Parameters Rated Speed Rated Working voltage Start Torque	240 RPM DC400V/DC240V <0.3N.M Three-phase permanent
Generator Parameters Rated Speed Rated Working voltage Start Torque Generator Type	240 RPM DC400V/DC240V <0.3N.M Three-phase permanent magnet generator
Generator Parameters Rated Speed Rated Working voltage Start Torque Generator Type Wind Answering Method	240 RPM DC400V/DC240V <0.3N.M Three-phase permanent magnet generator Up wind+yawing
Generator Parameters Rated Speed Rated Working voltage Start Torque Generator Type Wind Answering Method Stop Method	240 RPM DC400V/DC240V <0.3N.M Three-phase permanent magnet generator Up wind+yawing Pitch brake + active yaw Pitch + active yaw +
Generator Parameters Rated Speed Rated Working voltage Start Torque Generator Type Wind Answering Method Stop Method Speed Mode	240 RPM DC400V/DC240V <0.3N.M Three-phase permanent magnet generator Up wind+yawing Pitch brake + active yaw Pitch + active yaw + electromagnetic brake
Generator Parameters Rated Speed Rated Working voltage Start Torque Generator Type Wind Answering Method Stop Method Speed Mode Protection Grade	240 RPM DC400V/DC240V <0.3N.M Three-phase permanent magnet generator Up wind+yawing Pitch brake + active yaw Pitch + active yaw + electromagnetic brake IP54





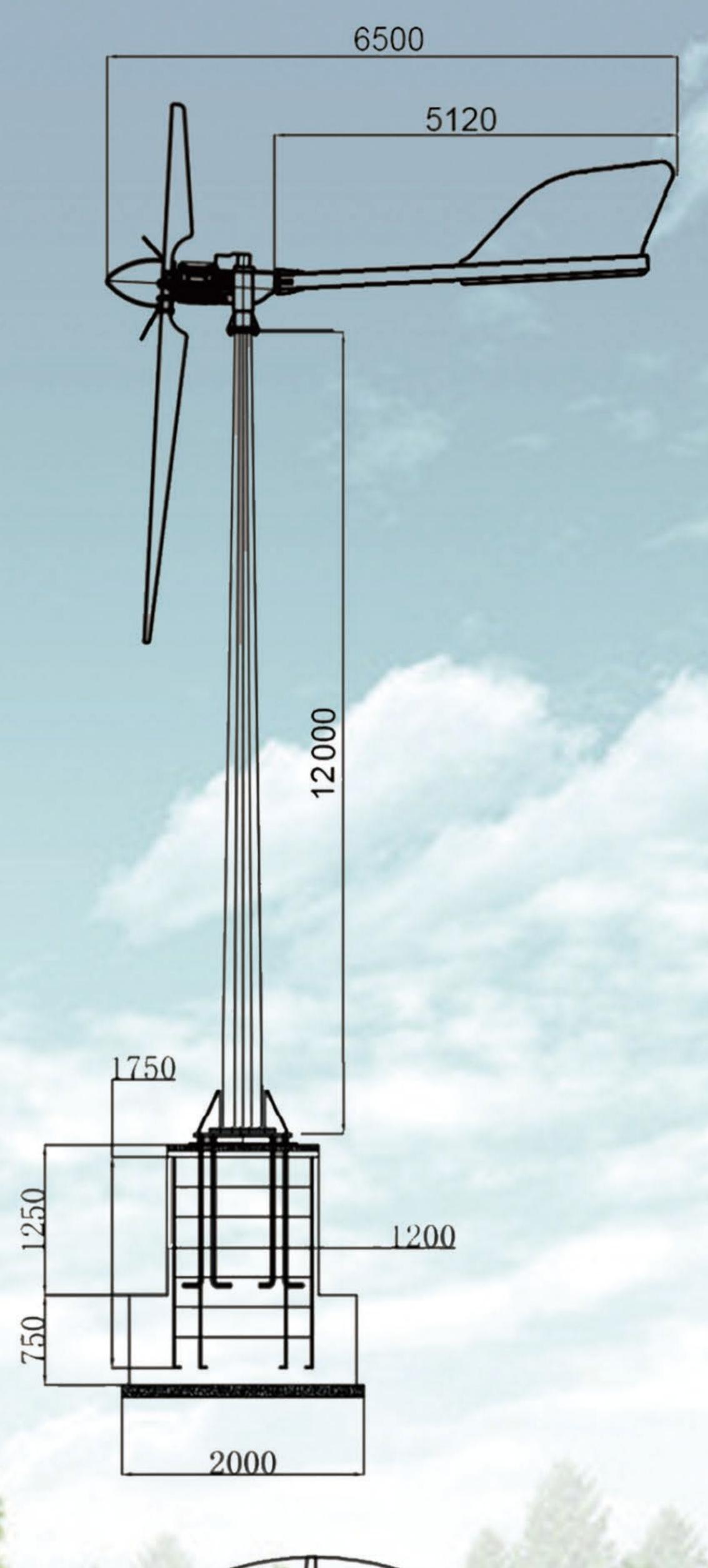
Variable Pitch Wind Turbine 10KW

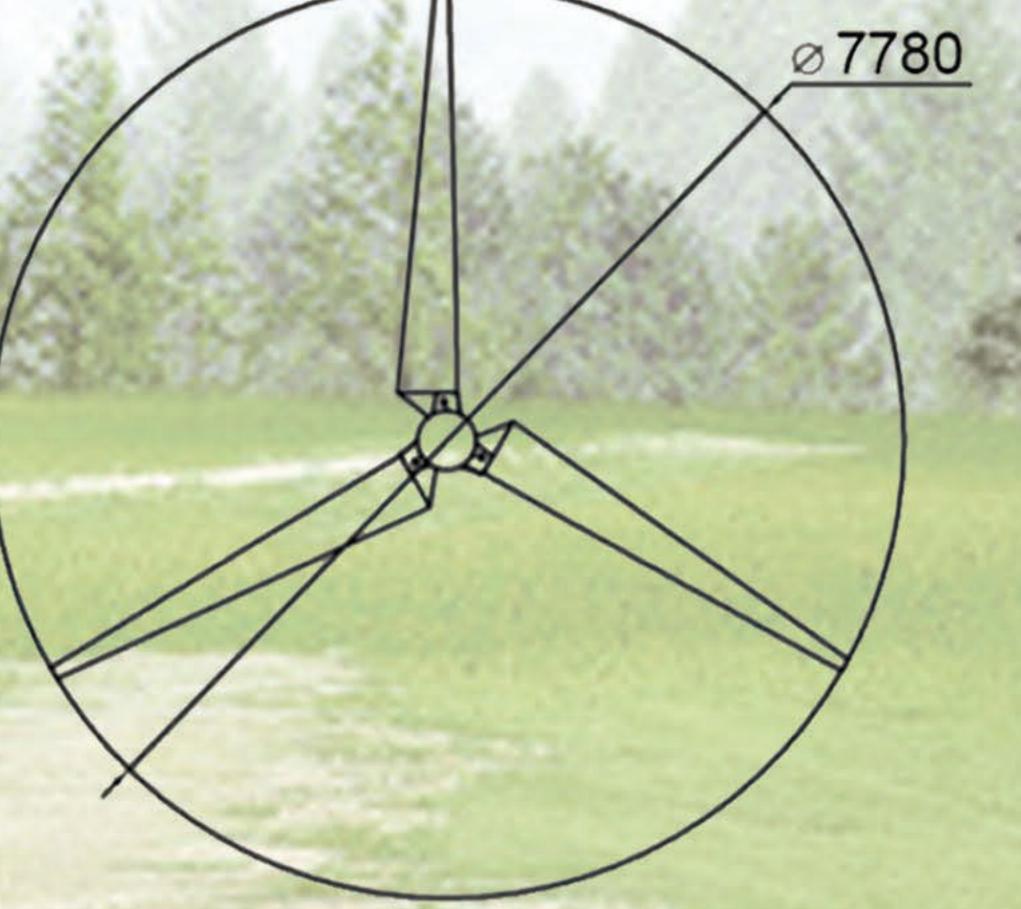




AH-10KW Parameter

Model	AH-10KW
Performance	
Rated Power	10kW
Max Power	12kW
Start Wind Speed	2.5m/s (5.59mph)
Rated Wind Speed	11m/s(24.6mph)
Working Wind Speed	3-30m/s (6.71-67.2 mph)
Safety Wind Speed	60m/s(133.8mph)
Physical Parameters	
Blades Length	3.6M(11.8ft)
Blades Rotor Diameter	7.78M(25.2ft)
Blades Material & Quantity	FRP /3PCS
Mill Weight	550kg
Swept Area	47.5 m ²
Tower Height	≥12, Hot dip galvanized
Generator Parameters	
Rated Speed	180 RPM
Rated Working voltage	DC400V
Start Torque	<0.3N.M
Generator Type	Three-phase permanent magnet generator
Wind Answering Method	Up wind+yawing
Stop Method	Pitch brake + active yaw
Speed Mode	Pitch + active yaw + electromagnetic brake
Protection Grade	IP54
Working Temperature	-20+50°C
Life time	20 Years

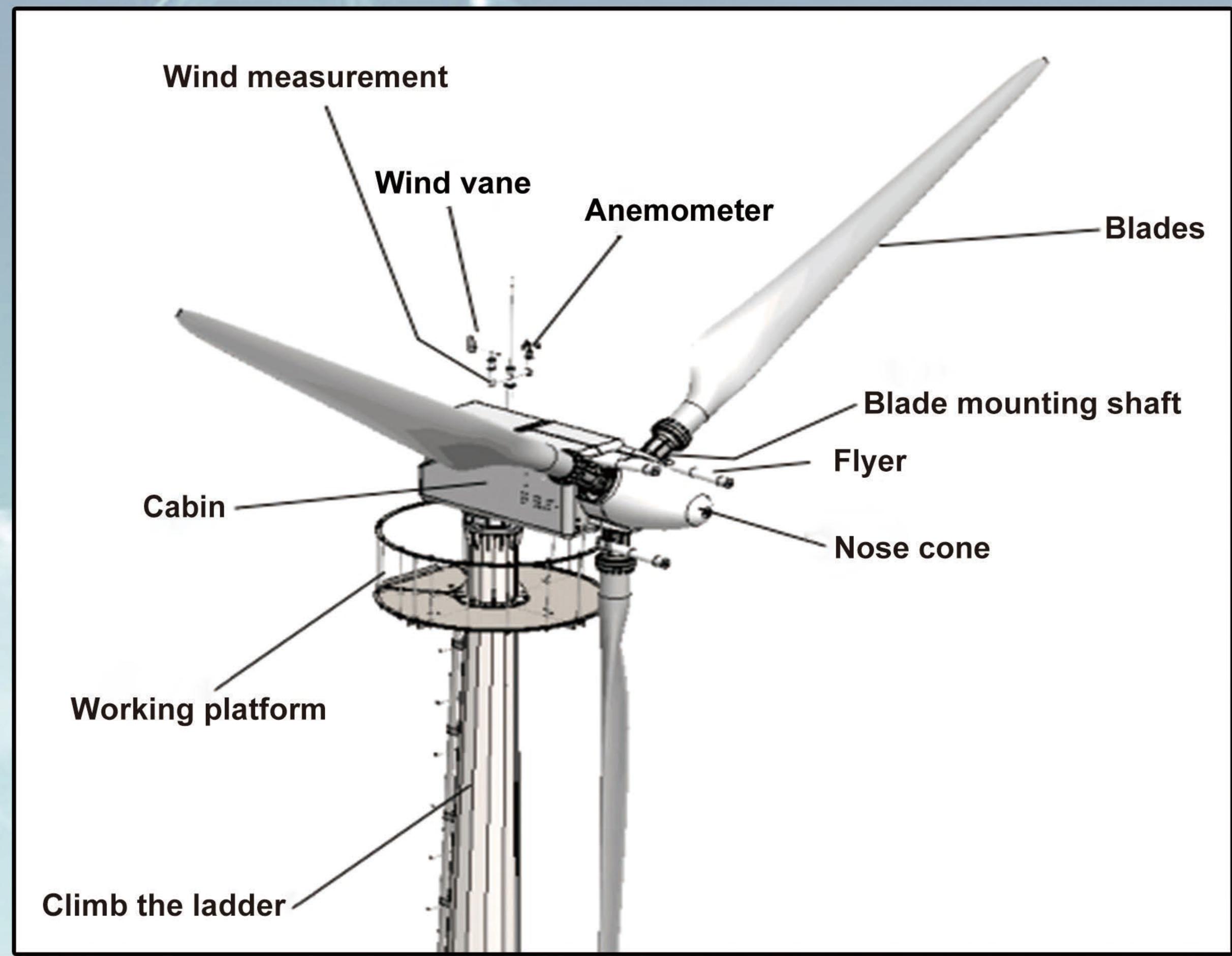




07



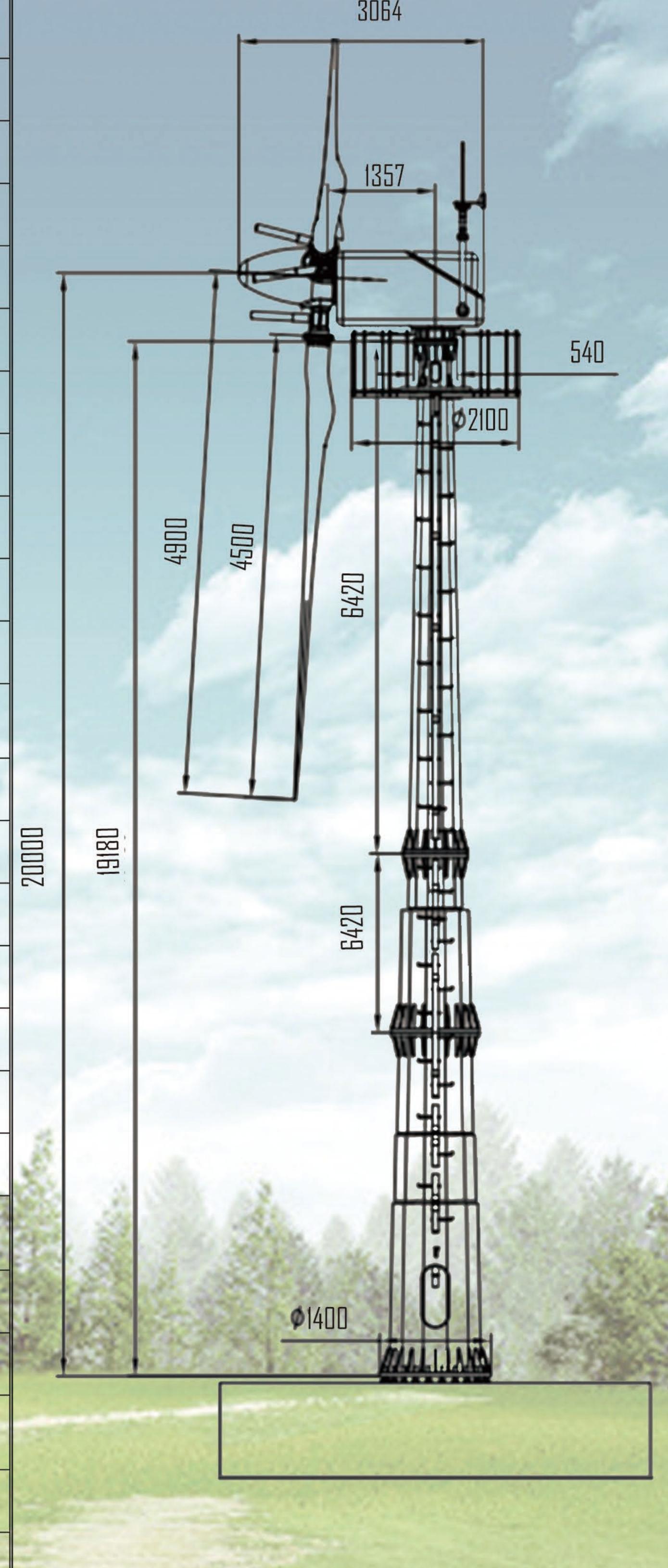
Variable Pitch Wind Turbine 20KW





AH-20KW Parameter

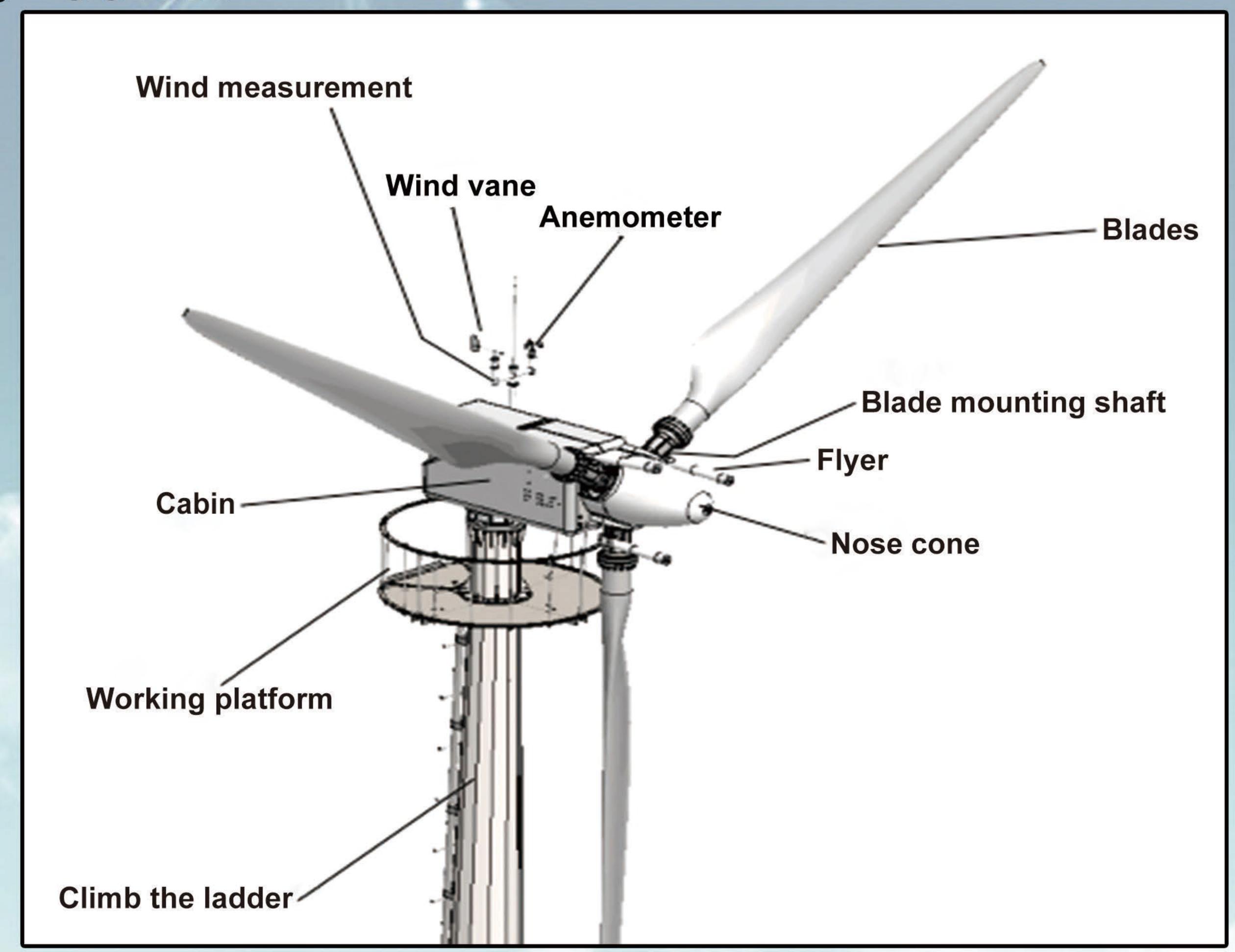
Model	AH-20KW
Performance	
Rated Power	20kW
Max Power	22kW
Start Wind Speed	2.5m/s (5.59mph)
Rated Wind Speed	11m/s(24.6mph)
Working Wind Speed	3-30m/s (6.71-67.2 mph)
Safety Wind Speed	60m/s(133.8mph)
Physical Parameters	
Blades Length	4.5M(14.8ft)
Blades Rotor Diameter	9.8M(32.1ft)
Blades Material & Quantity	FRP /3PCS
Mill Weight	1210kg
Swept Area	75.39 m²
Tower Height	≥20, Hot dip galvanized
Generator Parameters	
Rated Speed	175 RPM
Rated Working voltage	DC280V/DC450V
Start Torque	<0.3N.M
Generator Type	Three-phase permanent magnet generator
Wind Answering Method	Up wind+yawing
Stop Method	Pitch brake + active yaw
Speed Mode	Pitch + active yaw + electromagnetic brake
Protection Grade	IP54
Working Temperature	-20+50°C
	20 Years



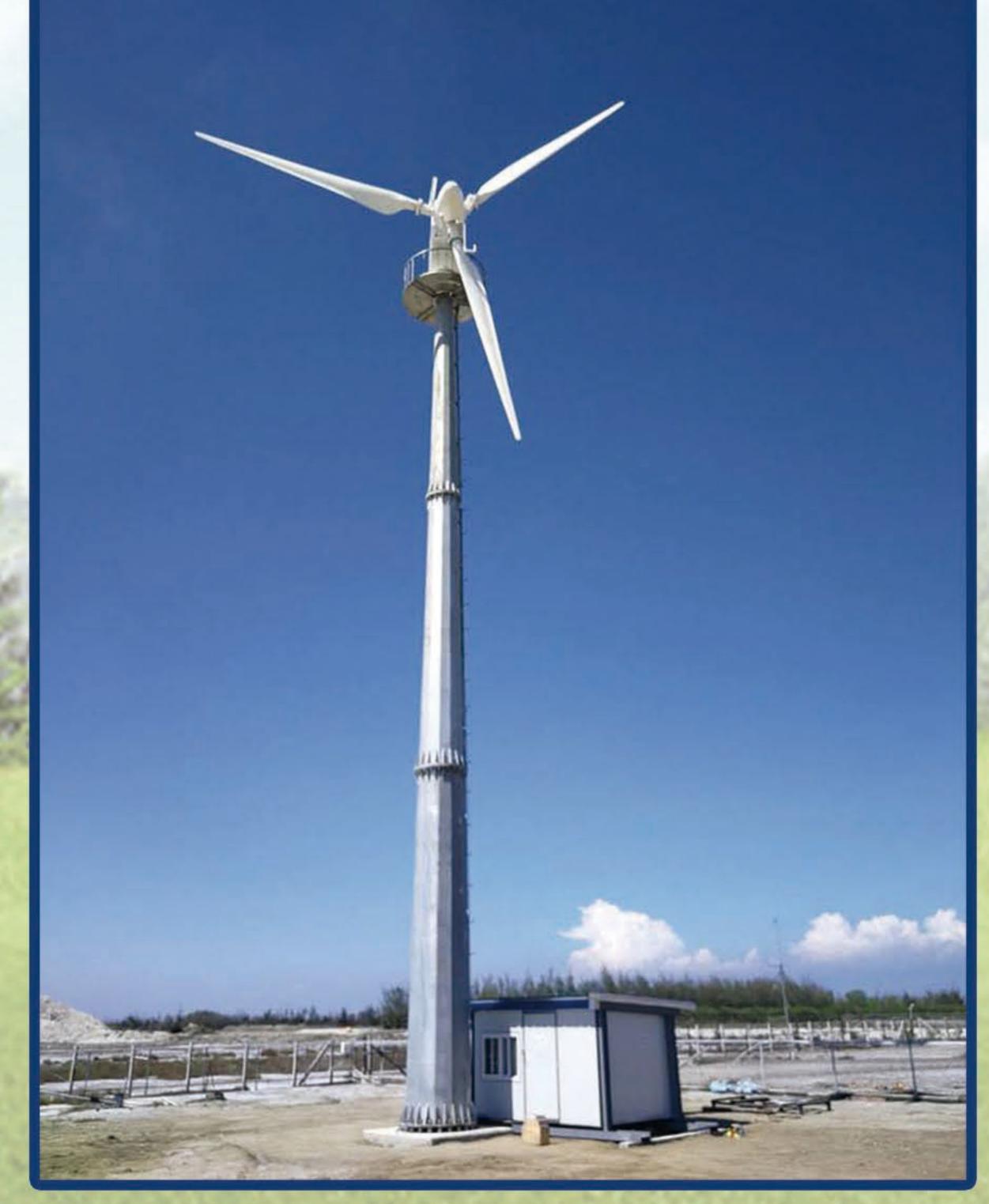
09



Variable Pitch Wind Turbine 30KW

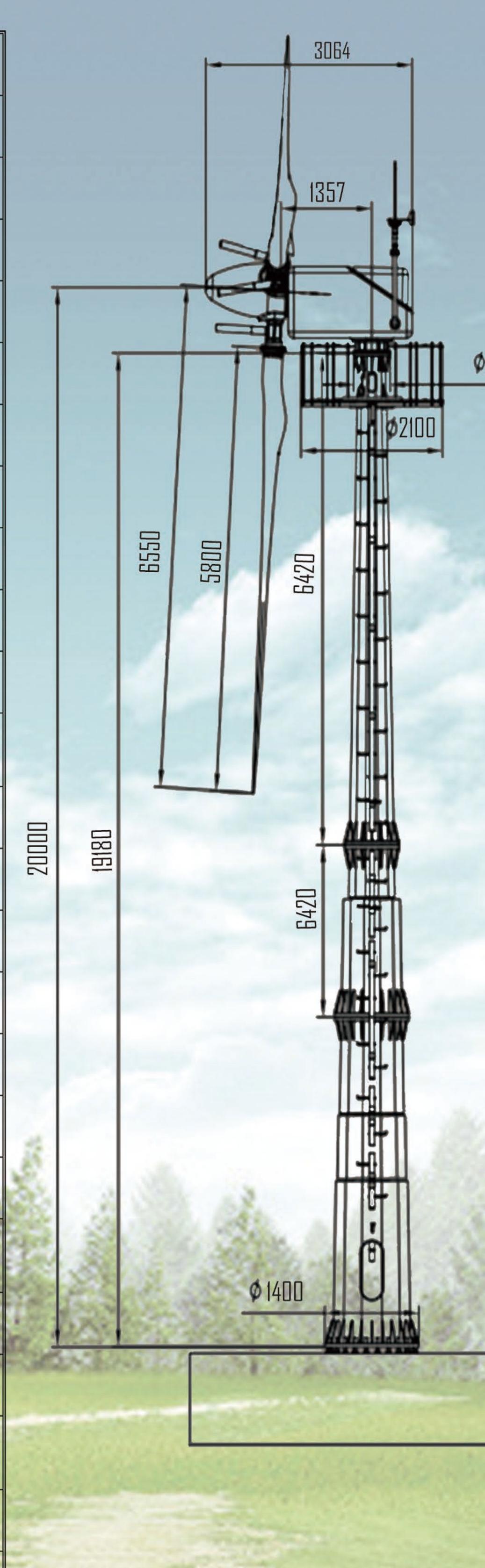






AH-30KW Parameter

	Model	AH-30KW
	Performance	
	Rated Power	30kW
	Max Power	34kW
	Start Wind Speed	2.5m/s (5.59mph)
	Rated Wind Speed	11m/s(24.6mph)
	Working Wind Speed	3-30m/s (6.71-67.2 mph)
	Safety Wind Speed	60m/s(133.8mph)
	Physical Parameters	
	Blades Length	5.8M(19.02ft)
	Blades Rotor Diameter	13.1M(42.97ft)
	Blades Material & Quantity	FRP /3PCS
	Mill Weight	2800kg
	Swept Area	132 m²
	Tower Height	≥20, Hot dip galvanized
	Generator Parameters	
	Rated Speed	105 RPM
	Rated voltage	400 Vac
	Start Torque	<0.3N.M
	Speed regulation method	Auto yawing+pitch-controlled
	Wind answering method	Up wind+yawing
	Stop method	Auto brake
	Gale protection	Smart control+unattended
	Protection Grade	IP54
	Working Temperature	-20+50℃
	Life time	20 Years
1		





Wind Turbine Controller









ON GRID SOLAR WIND HYBRID (1KW-100KW) WATER POWER RECTIFIER(1KW-5MW) WIND TURBINE (300W-100KW) SOLAR WIND HYBRID (300W-100KW) SOLAR PANELS(300W-100KW) WATER GENERATOR(1KW-5MW)

Wind Turbine Inverter













INVERTOR ON GRID

~ OFF GRID ~

SOLAR WIND HYBRID (300W-3MW)

SOLAR PANELS(1KW-5KW)

WIND TURBINE (1KW-3MW)

WATER GENERATOR(500W-3MW)

WIND TURBINE (300W-3MW)

SOLAR WIND HYBRID (300W-3MW)

SOLAR PANELS(300W-3MW)

WATER GENERATOR(500W-3MW)

Remarks prompt:

According to the customer's system scheme, we can provide various types of controllers and inverters. If you have special requirements, please contact us.



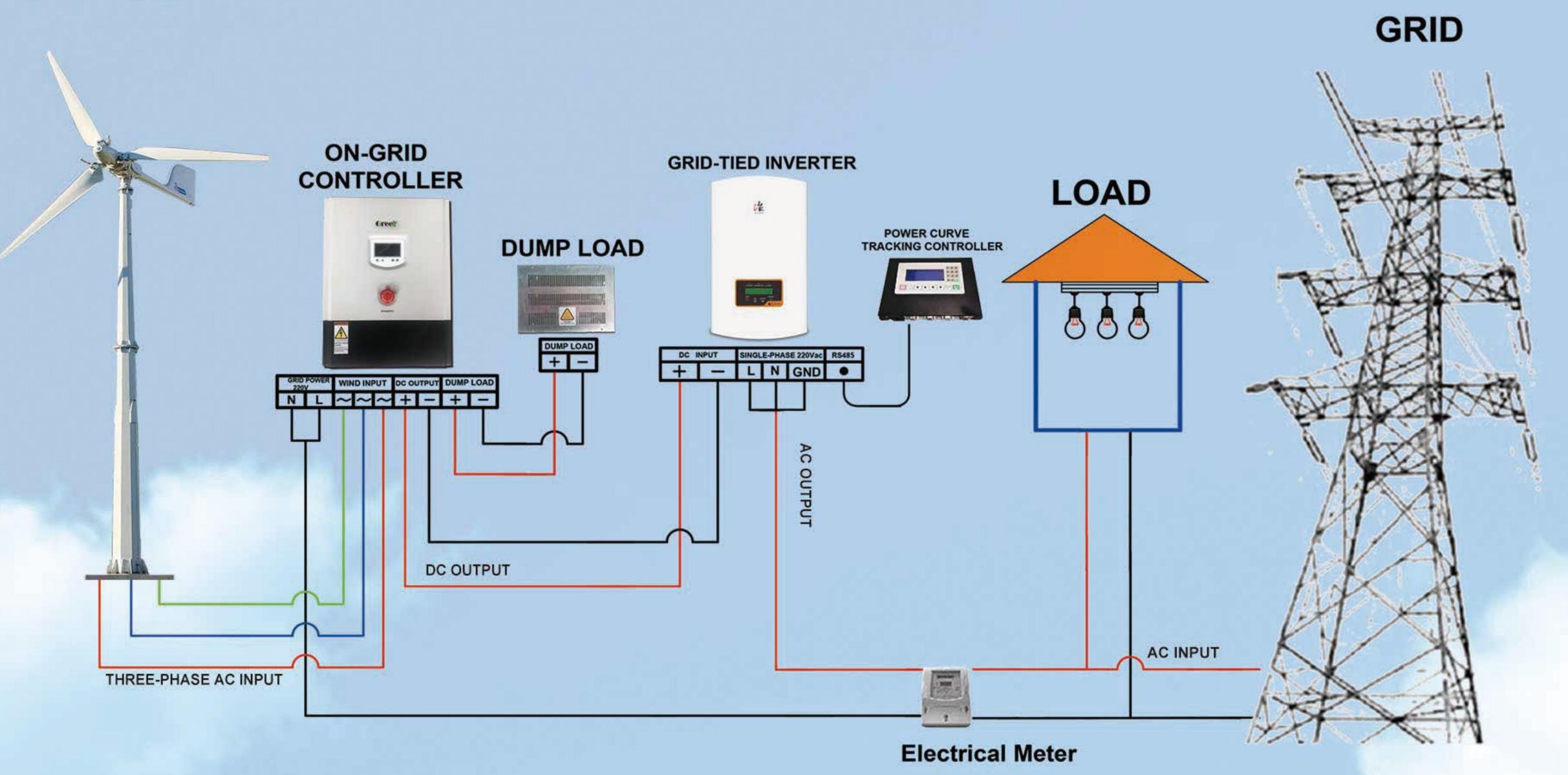
System Solution Diagram

For the Pitch control wind turbine used in wind power generation system, GREEF engineer team can provide system design service and equipments of the whole system.



ON-GRID WIND SYSTEM

WIND TURBINE





WIND TURBINE

ON-GRID WIND SYSTEM

ON-GRID CONTROLLER

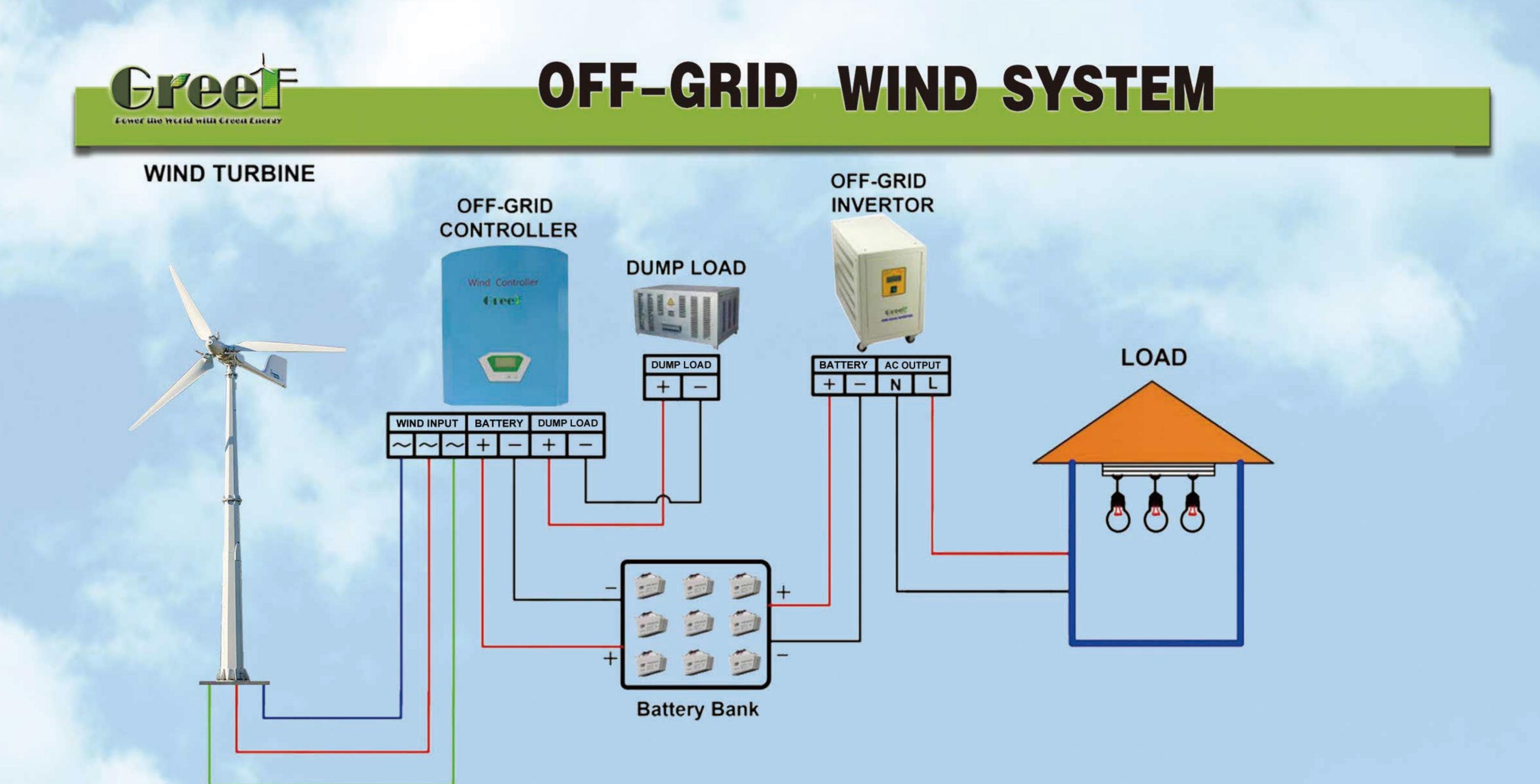
DUMP LOAD

TRACKING CONTROLLER

AC INPUT

THREE-PHASE AC INPUT

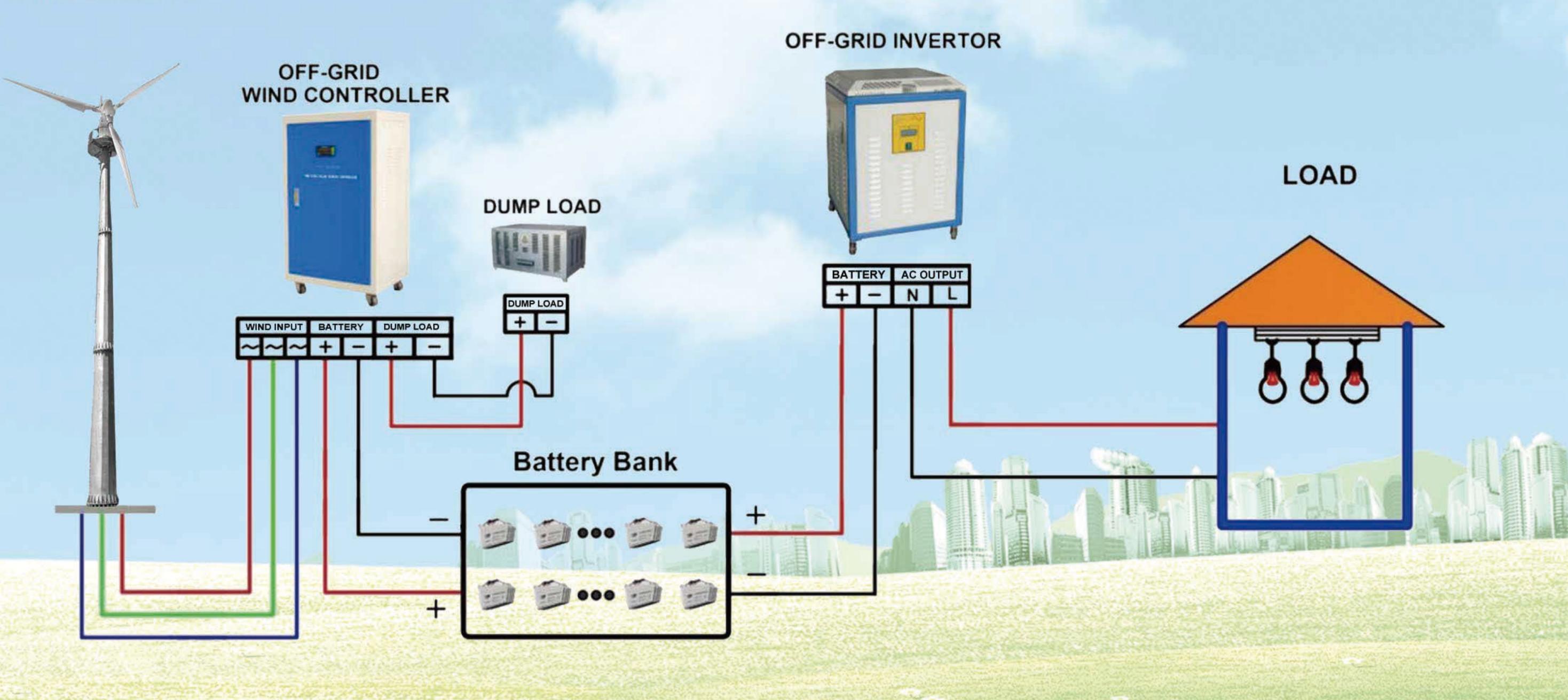
Electrical Meter



Greet the wested with Erecut Energy

OFF-GRID WIND SYSTEM

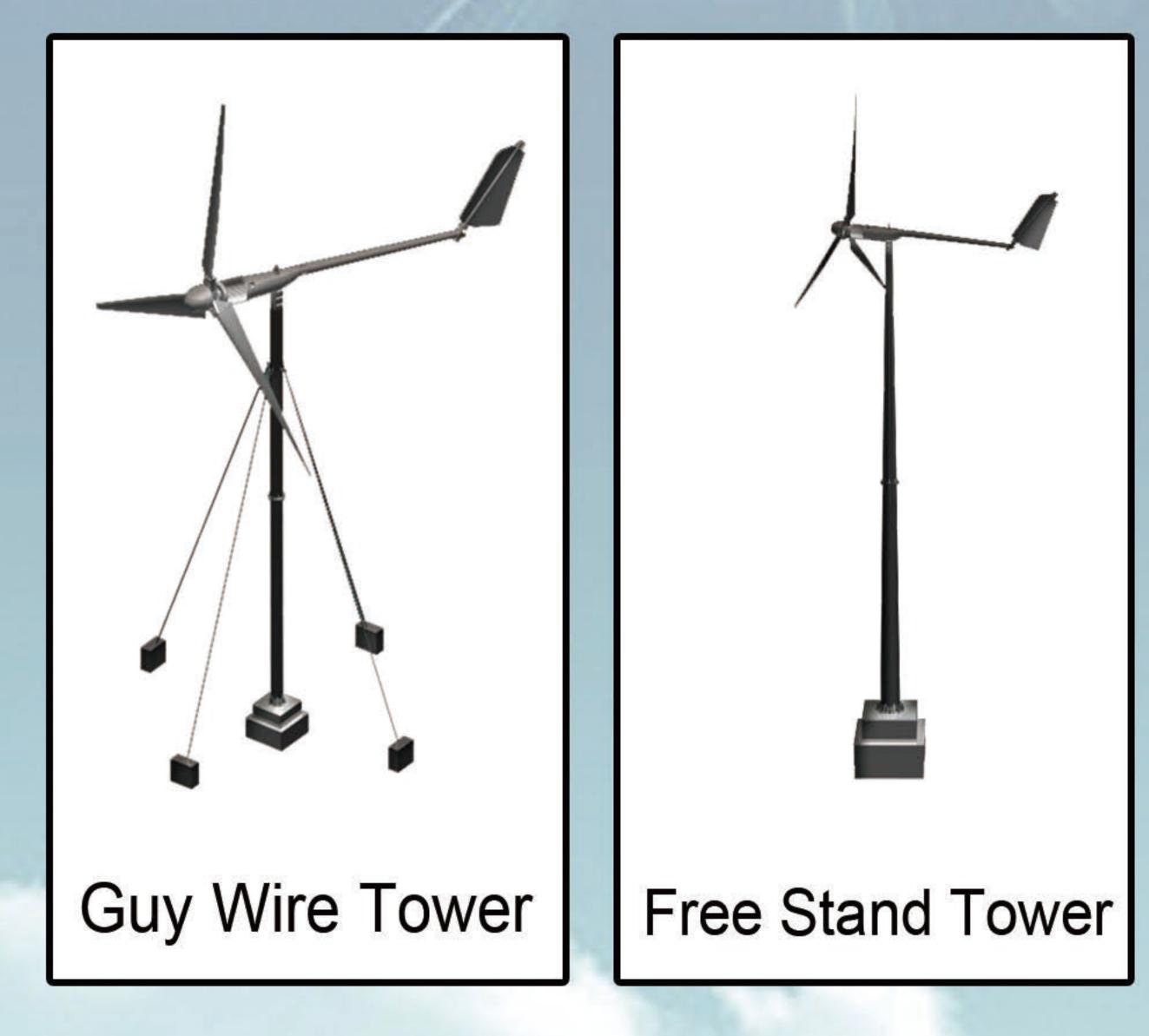
WIND TURBINE





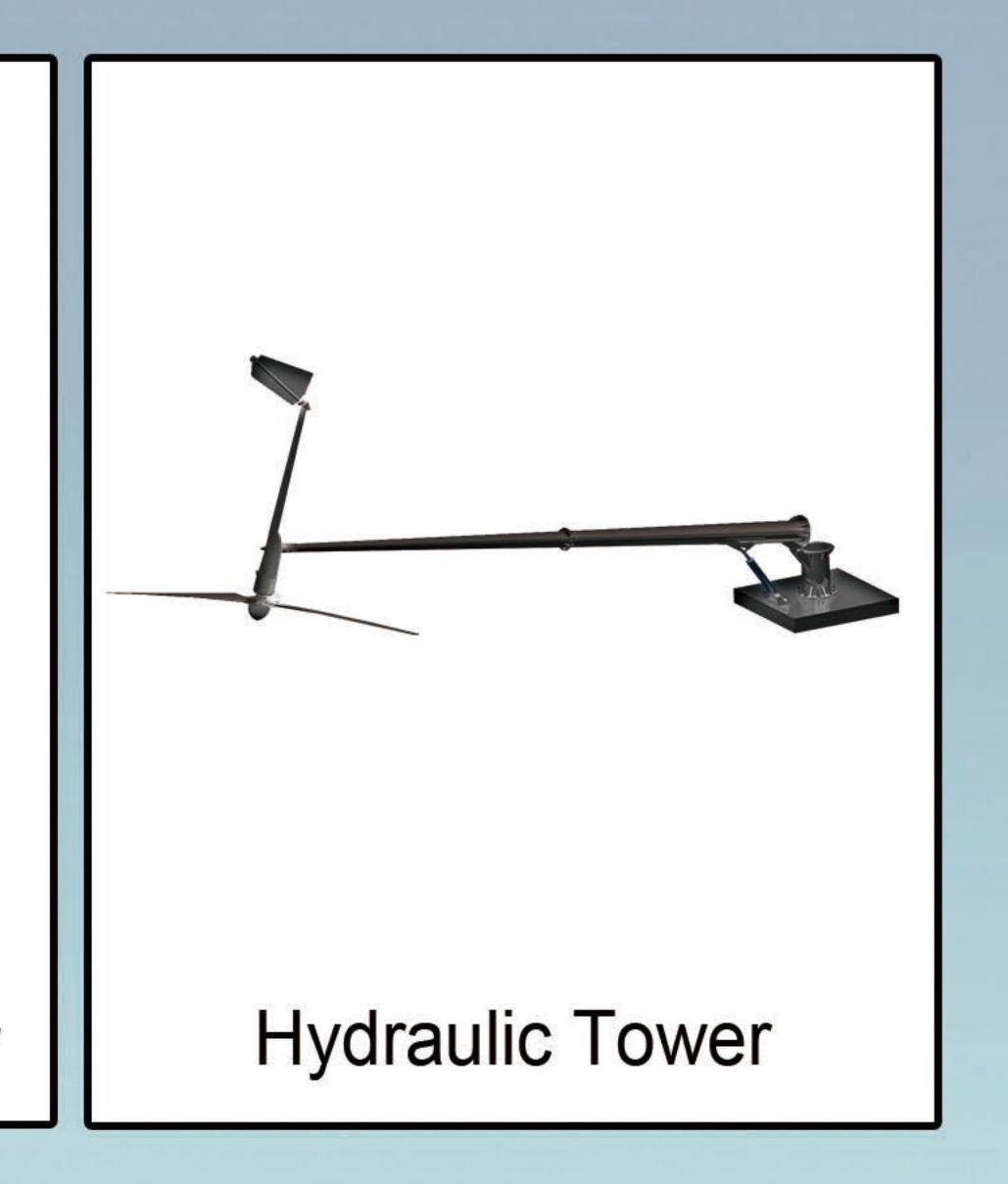
Wind Turbine Project Cases

Tower









Blades



















20kW In Antarctica



20kW In Fiji



20kW In Shanghai



20kW In Turkey

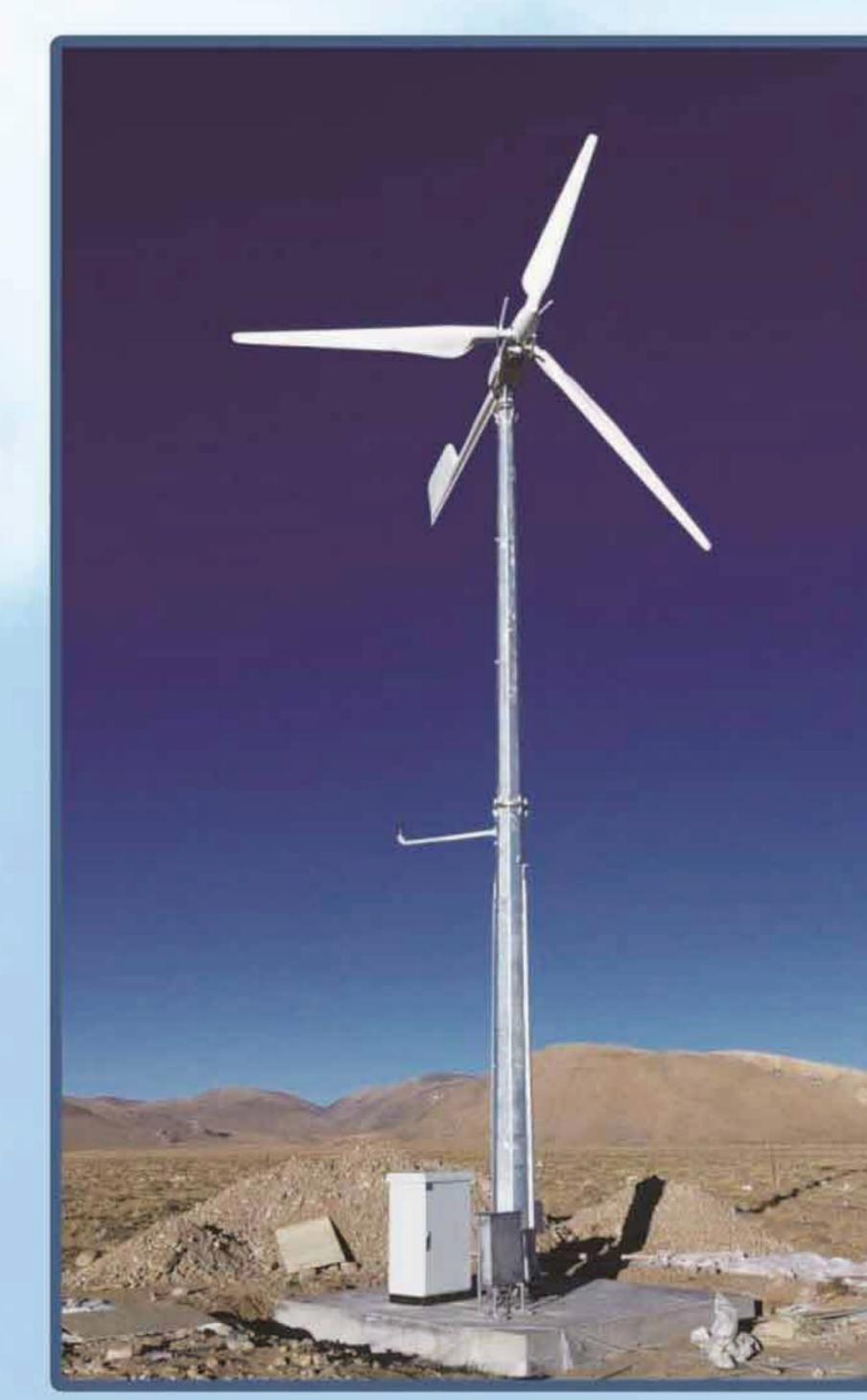


20kW In Denmark

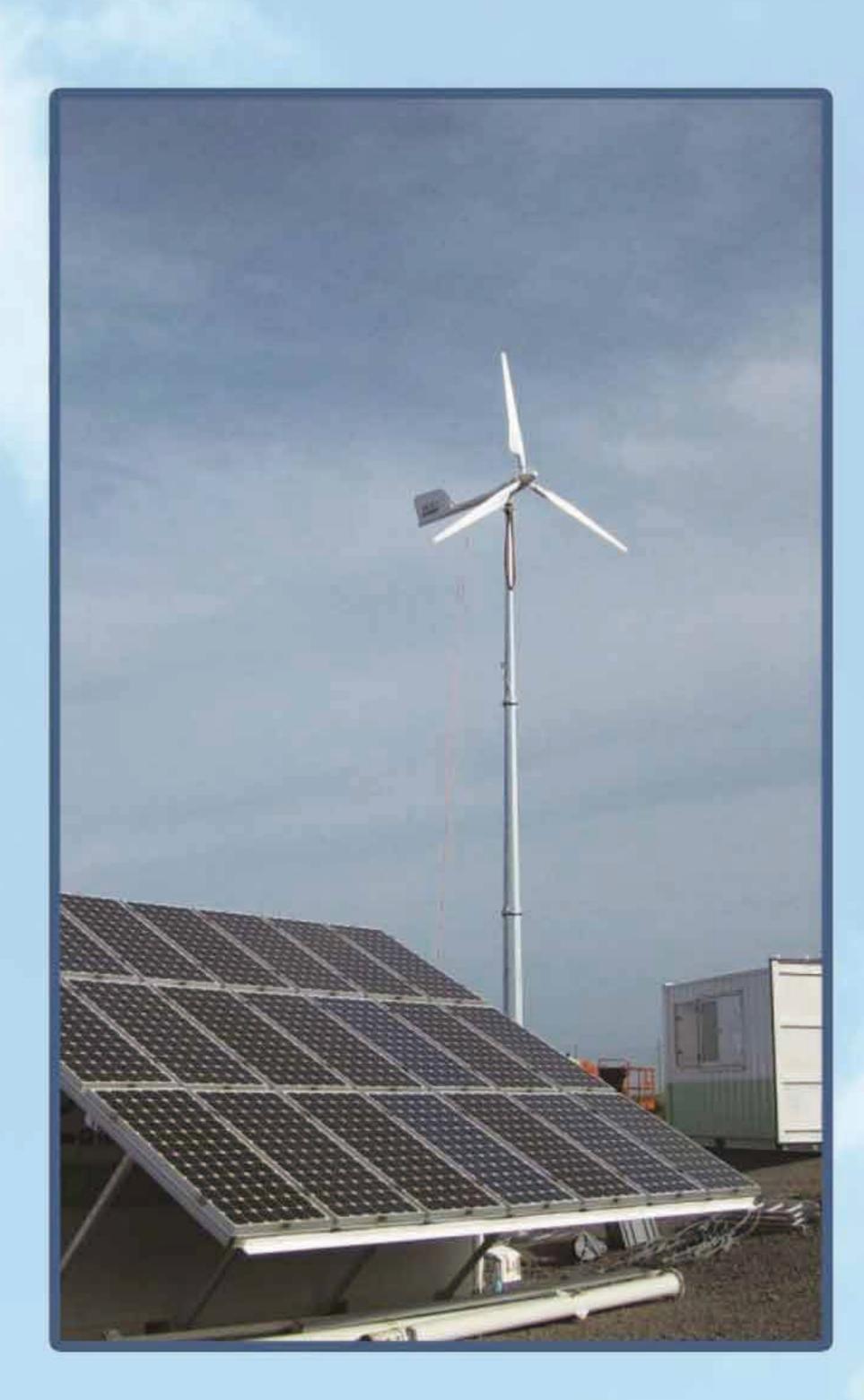


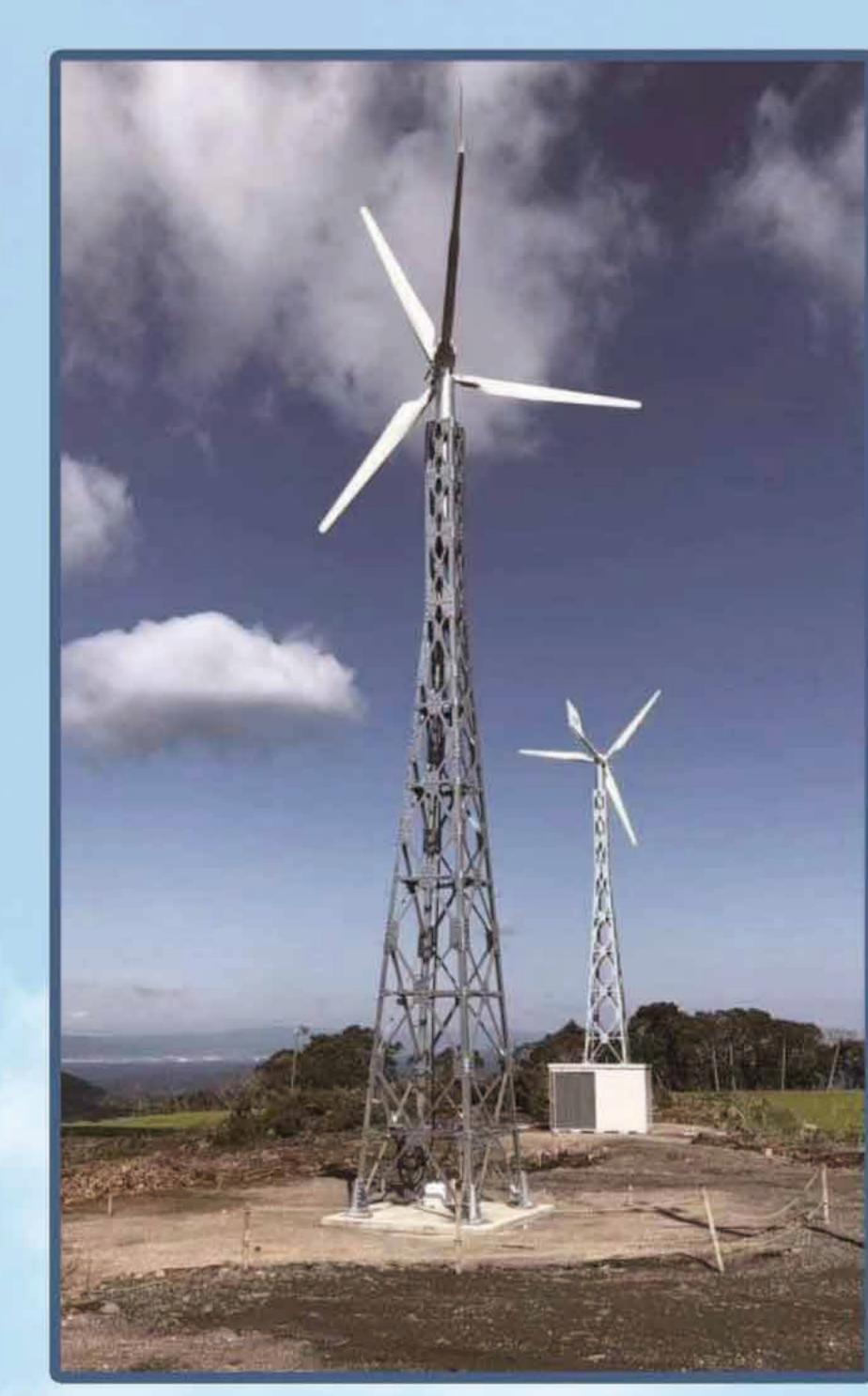
20kW In Iran

















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After-Sales Service

Thank you for choosing "GREEF" new energy products. We always provide a comprehensive range of services before, during and after sales. "GREEF NEW ENERGY guarantee as follows:

I. Warranty period:

Pitch Comntrol Wind Turbine is Three years warranty.

OFF-GRID controller &i nvertor &convertor is One years warranty.

ON-GRID Wind invertor is Three years warranty.

- (1) The warranty period is start from the date of on the guarantee card.
- (2) During the warranty period, the cost of maintenance services caused by our product's quality problems, be borne by our company, do not charge a fee from customers; if any maintenance outside the warranty period, our company will charge a fee from customers.
- (3) During the warranty period, the freight of maintenance service caused by our product's quality problems, be borne by our company, do not charge a fee from customers; if not under warranty or not quality problem, all the freight charges by the customer.

II. Warranty:

We will provide the approved products for all customers to provide maintenance services. But in order to enable the two sides can enjoy fair Treatment, for the following reasons for failure or damage, we will not provide free warranty.

- (1) When beyond the warranty period;
- (2) Disasters, leaving damage to the product caused by accident;
- (3) The user-transport, carrying, falling, collision and damage caused by the failure;
- (4) The product as user-modification, and other failures caused by improper use and damage;
- (5) The users' un-normally operation, like test with other equipment, and caused by the failure;
- (6) Customer open and repair device without our guide and cause damage.

III. Maintenance services implementation:

- (1) If your machine meet any problems, please take photos and videos send to our service department and explain the details of the problems. or send to the sales which you contact before.
- (2) Our engineers will check the problem, and give you suggestion to solve the problem. Most of the small problem can be solved after engineer guide.
- (3) If we find that any parts need to be replacement, we will send the parts to customers. Quality problem we afford all the charge within warranty period.
- (4) If a major problem in our products, we will send engineers to provide appropriate support.

IV. Fees:

During the After-sale process, if we need charge fee form customers, the fees = replacement parts + technical service fees + freight + labor costs, we will provide timely material Price (cost).

GLOBAL PARTNER



































