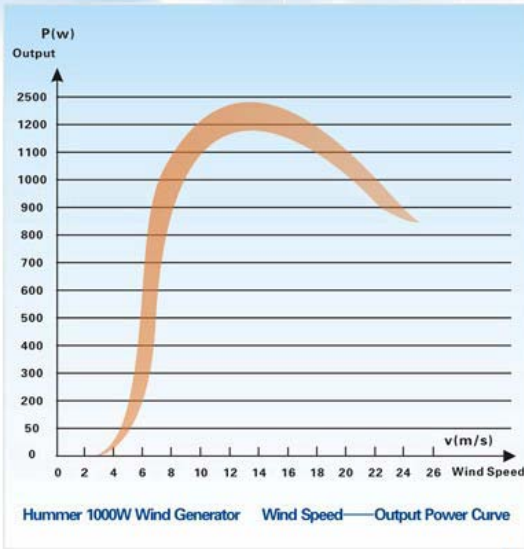


ANHUI HUMMER DYNAMO CO.,LTD

Generator Invisible Wind Turbine

1kW

Model:H3.1-1000W



HUMMER



Main technical data:

H3.1-1000

Rotor blade diameter	3.1m	Max output	≥2000W
Numbers of blade	3	Output Voltage	AC 220V DC70V
Start up wind speed	3.0m/s	Height	8m
Rated wind speed	9m/s	Generator weight	20kg
Rated output power	1000W	Temperature	± 45°C
Allocated battery	5 × 12V	Speed protection	Tower leaned

If any change, please see the real products



ANHUI HUMMER DYNAMO CO.,LTD

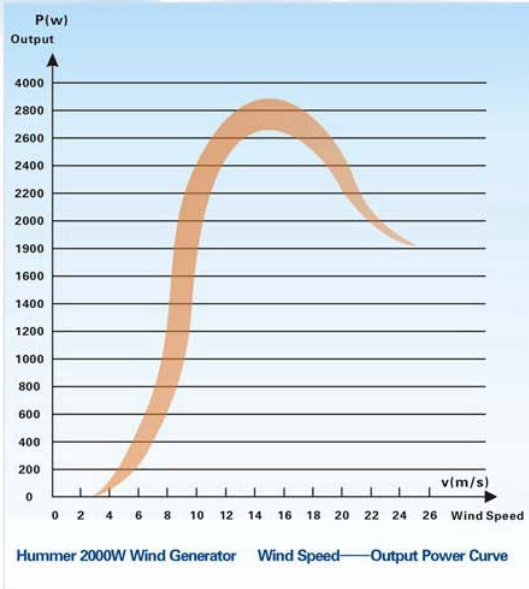
Generator Invisible Wind Turbine

2kW

Model:H3.6-2000W



HUMMER



Main technical data:

H3.6-2000

Rotor blade diameter	3.6m	Max output	≥3500W
Numbers of blade	3	Output Voltage	AC 220V DC70V、140V
Start up wind speed	3.0m/s	Height	10m
Rated wind speed	9m/s	Generator weight	25kg
Rated output power	2000W	Temperature	± 45°C
Allocated battery	10 × 12V	Speed protection	Tower leaned

If any change, please see the real products

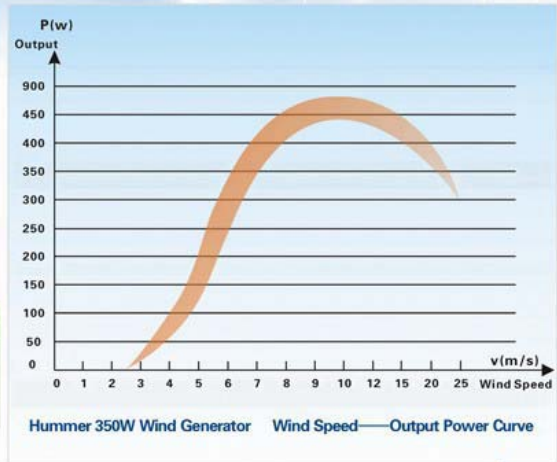


ANHUI HUMMER DYNAMO CO.,LTD

Generator Invisible Wind Turbine

350W

Model: H2.5-350W



HUMMER



Main technical data:

H2.5-350

Rotor blade diameter	2.5m	Max output	≥700W
Numbers of blade	3	Output Voltage	AC 220V DC 28V
Start up wind speed	2.5m/s	Height	6m
Rated wind speed	6.5m/s	Generator weight	5kg
Rated output power	350W	Temperature	± 45°C
Allocated battery	2 × 12V	Speed protection	Tower leaned

If any change, please see the real products

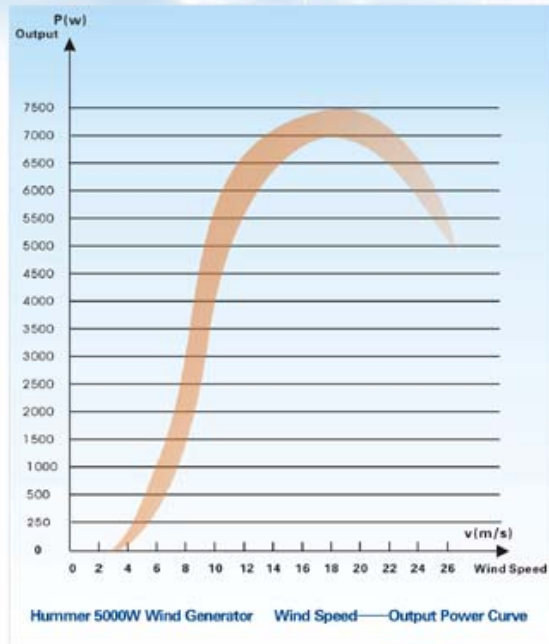


ANHUI HUMMER DYNAMO CO.,LTD

Generator Invisible Wind Turbine

5kW

Model:H6.4-5000W



Main technical data

H6.4-5000

Rotor blade diameter	6.4m	Max output	≥7500W
Numbers of blade	3	Output Voltage	AC 220V DC 140V, 280V
Start up wind speed	3m/s	Height	12m
Rated wind speed	10m/s	Generator weight	100kg
Rated output power	5000W	Temperature	± 45°C
Allocated battery	10 × 12V	Speed protection	Tower leaned

If any change, please see the real products

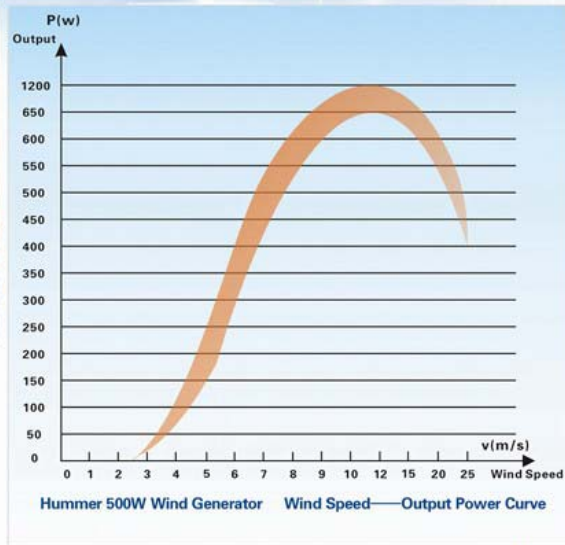


ANHUI HUMMER DYNAMO CO.,LTD

Generator Invisible Wind Turbine

500W

Model:H2.7-500W



HUMMER



Main technical data:

H2.7-500

Rotor blade diameter	2.7m	Max output	≥1000W
Numbers of blade	3	Output Voltage	AC 220V DC 28v
Start up wind speed	2.5m/s	Height	6m
Rated wind speed	7m/s	Generator weight	6.5kg
Rated output power	500W	Temperature	±45°C
Allocated battery	2 × 12V	Speed protection	Tower leaned

If any change, please see the real products



■ Applied cases



Residents:  
pastoral, plateau, island



Culturist:  
river, lake, coast



Sea use:  
lighthouse, beacon, island



Ship use:  
lake shipment river  
shipment



Telecommunication:  
telecommunication relay  
station,TV relay station,  
emergency telecommunication  
car



Scene spot:  
park, villas, inhabit



Water pumping:  
grassland, autopumping,  
salt bleachery



Street lamp:  
coastal city,suburban area



pipe protection:  
petrol pipe protection  
gas pipe protection



express highway:  
green keeping, way signal



Whether station



Combined to grid



## Corporation introduction

Hefei Hummer Dynamo Co., Ltd., located in APEC High and New Technology Garden -- Hefei National Hi-Tech Development Zone, is a burgeoning private high technology enterprise in the line of wind generator. We specialize in R&D, producing and promoting of small-sized wind generator system. And providing solutions for setting up small -sized wind power plants.

The two generations, totally about 30 years' hard working has developed seven patents to Manufacture the extreme light and high efficient wind generator with its control system.

Hummer has its aim that to be the best domestic manufacturer and service provider as well as worldwide influential expertise corporation.



## Product features

**Hummer the smallest bird in the world, the heaviest of which weighs 20g and the lightest 2g.**

Hummer 350W Wind Generator weighs only 5kg, 20kg for 1KW, and 25kg for 2KW, 45kg for 3KW, 100kg for 5KW, 200kg for 10KW (including blades, hub and nose cone).

**Hummer-as small as a wasp, is the smallest bird in the world.**

Hummer Generators small in size, motors are all covered by low energy consumption, low noise, low rated wind speed(6.5m/s for 350W)  
Hummer Small-sized Wind Generator System is commended as generator-invisible system.

**Hummer flutters its wings 50 to 200times/s, it is the quickest moving wings in the world.**

**Swift Start-up:** While conventional wind generator is waiting for higher wind to start up, the Hummer has been working already.  
**Swift Running:** Due to lightness, high efficiency and low resistance, Hummer generator runs 1.5 to 3 times faster than other types of generators under coequal condition. So the energy transforming rate is high, and can produce more power.  
**Swift Charging:** Hummer's running time is longer, so it can charge battery faster.

**Hummer is a flying expert, it can freely fly, hover, suddenly stop or turn.**

The system is compact and light, its blades adopt end joint and can fly stably. Hummer adopts wide range of wind speed from 2.0m/s to 40m/s, and can stably inhale wind. Hummer provides perfect protection for overcharging, overdischarging, short circuit, overloading, over heating, etc.; Its charging, inverting and unloading system are all designed and manufactured to meet the features of Hummer generator; it adopts LED display, as to be easily read.  
Besides the buzzing alarm has enhanced the system's stability and reliability.



## Core techniques

Through nearly 30 years' research and develop, Hummer has got seven patents: four at generator (two of them are international), one at structure, one at low wind start, and one at electrical controller.

Hummer's mini wind generator is a high-tech product, which has synthesized several high techniques. Such as air Dynamics, new material, auto controlling and magnetic cutting, etc. We take the lead in this line home and abroad, esp. The super small structure, which weighs only 20% of traditional generator.

Besides, our new way of craft and surface design also go ahead in the industry. We have six technical features as extreme small structure, low wind start, low rated wind speed, Quick output in low wind, wide wind speed ranges, reliable speed restriction, and stable quiet running.

We have a powerful R&D team (consisting of experts enjoying government allowance) which has been providing reliable force for product-upgrading & technical support, while the department has equipped with the first-class generator measure system and battery measure system, with five research rooms for mechanism design, products design, control management, and air dynamics, etc.

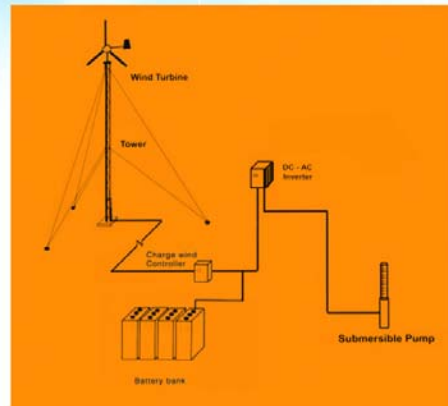


		Technical data							
Data	Power	350W	500W	750W	1000W	2000W	3000W	5000W	10000W
Rated power(W)		350	500	750	1000	2000	3000	5000	10000
Rated output voltage(V)		28	28	42	56/70	140	140/280	220/280	320
Number of glass fiber reinforced plastic blades		3	3	3	3	3	3	3	3
Blade diameter (mm)		2.5	2.7	2.8	3.1	3.6	4.8	6.4	8.0
Start up wind (m/s)		2.5	2.5	3	3	3	3	3	3.5
Rated wind speed (m/s)		6.5	7	8	9	9	10	10	10.5
Rated running speed (m/s)		600	600	650	500	450	400	230	180
Wind energy transforming rate(Cp)		0.5	0.48	0.45	0.45	0.45	0.45	0.45	0.45
Generator efficiency		>0.78	>0.78	>0.78	>0.78	>0.78	>0.78	>0.78	>0.78
Plate size (mm)		Φ76	Φ76	Φ76	Φ90	Φ120	Φ173	Φ273	Φ380
Plate height (mm)		6	6	6	8	10	10	12	14
Generator Weight(kg)		5	6.5	8	10	25	45	100	200

Generator Invisible Wind Turbine

**■ Wind-pump hybrid system**

- Generating equipment——wind generator
- Controlling system——wind-pump controller
- Energy storing equipment——battery bank
- Irrigation equipment——pump

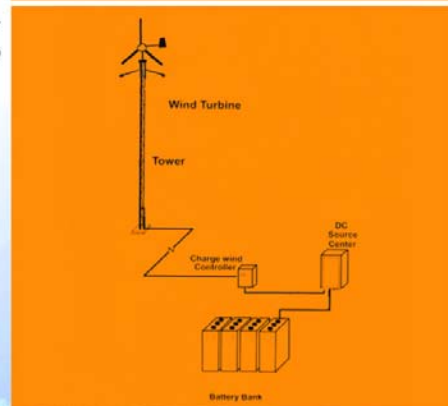


**Solution:**

It can absorb water from underground 70 meters or any well with diameter more than 100mm . It does work steady and under no influence by wind, so it is widely used in water absorbing, auto irrigation, etc.

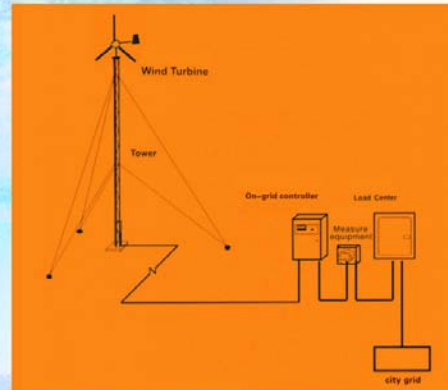
**■ Wind-light hybrid system**

- Generating equipment——wind generator and solar battery
- Controlling equipment——DC wind-solar hybrid controller
- Energy storing equipment——battery bank
- Lamp equipment——street lamp and pole



**■ Grid tie-in system**

- Generating equipment——wind generator
- Controlling equipment——grid tie-in controller
- Measure equipment——e-display, communication terminal
- Applying equipment——city grid





### Product structure



**Rotor blade:** designed according to airfoil structure. They are made of glass fiber reinforced plastic to increase the wind power utilization ratio. The end joint tech ensures the low wind start, and stable quiet running.

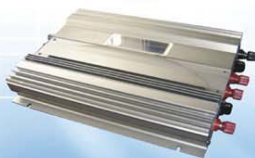


**Yaw shaft:** made of reinforced aluminum alloy, light and strong.



**Tail pole & tail wing:** made of stainless steel, anti-high wind, swift and strong

**Tower:** made of carbon steel, salt and acid proof, as well as UV-proof.



**Generator:** extreme light and small, low in sound, quick in startup, quick in heat defusing, running, and generating, high in efficiency ( $>0.78$ ).



**Nose cone:** made of reinforced aluminum alloy, antiseptic casting

**Controller:** Integrated of charging & discharging, inverting & unloading; compact input of wind and solar power; LED digital displaying of input current, and battery voltage; with 350W for refrigerator; With function of protection for over input, over output, output overloading, etc.; It can bear the highland as 6,000m, temperature ranging from  $-20^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ .



### ■ Wind-gas hybrid system

Generating equipment—wind generator, diesel generator

Controlling equipment—wind power controller, diesel charging controller

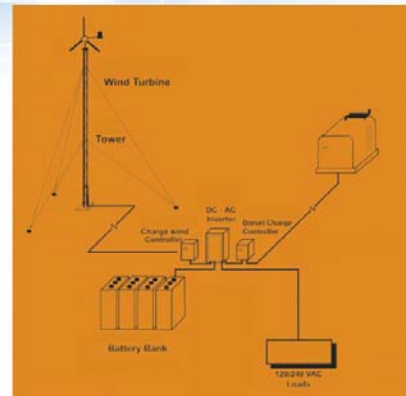
Energy storing equipment—battery bank

Inverting equipment—alternator

Applying equipment—low voltage casement and cables

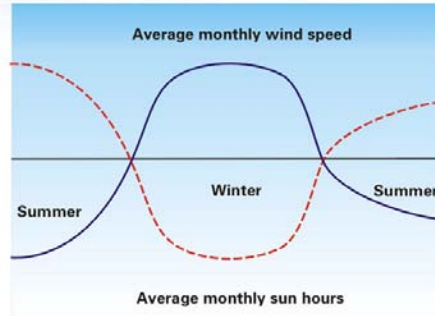
#### Solution:

If wind is strong enough, the wind generator can assure the demand; if not, the diesel generator will take the place. It is economical and 100%steady.



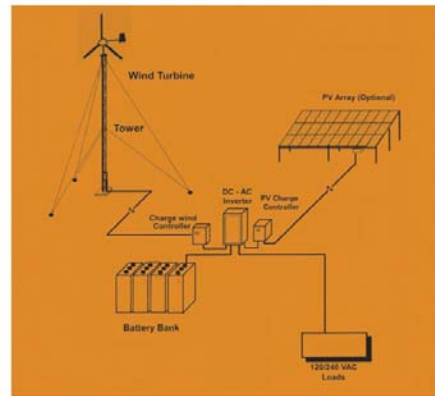
### ■ Wind-solar hybrid system

- Generating equipment—wind generator, solar battery
- Controlling equipment—wind power controller, solar charging controller
- Energy storing equipment—battery bank
- Inverting equipment—alternator
- Applying equipment—low voltage casement and cables



#### Solution:

Solar power is greatly influenced by season, climate and terrain, having the feature that more in summer and less in winter, while the wind power is rightly opposite. According to the situation, Hummer developed this green product to get a balanced electricity output and 85% provision ratio.



# HUMMER