Super Light & Small
Wind Generator
Professional Provider

HUMMER

HUMMER

Generator Invisible Wind Turbine

ANHUI HUMMER DYNAMO CO.,LTD

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Company Profiles

Anhui Hummer Dynamo Co., Ltd., a famous high and new tech enterprise in wind power industry, is specialized in the research, development, production, sales and service on medium and small-sized wind turbines. Our manufacturing base, covering an area of 7.5 acres, is located in Lujiang economic and technical development zone in Anhui province, China. In the Plant, there are about 200 workers among whom 40 R&D personnel, more than 70 sets of production equipment and 30 sets of detecting system. It gains the maximum monthly production capacity of 3,000 sets and the annual production capacity of 20,000 sets.

Hummer scientific research team is composed of experts who have got special government allowance support. With SCF generator technology as the core, we have researched and developed Hummer wind turbines, including 7 patents and independent intellectual property rights. It's lighter, smaller and more efficient comparing with traditional wind turbines.

We have been devoting ourselves to the improvement of the whole system's stability, safety and reliability with the adoption of Siemens PLC, SKF bearings, etc. We strictly follow the ISO9001 quality management system. Hummer wind turbine system has passed CE certificate and its generator has passed UL certificate.

Hummer's current wind turbines include 400W, 500W, 600W, 1KW, 2KW, 3KW, 5KW, 10KW, 20KW, 30KW and 50KW, together with the controller, inverter and tower etc. Our products have being exported to 91 countries and areas, such as the USA, Australia, Germany, the UK, France, Russia, Brazil, South Africa, India, Israel, Japan etc.

Market Position

Hummer has become one of the most famous brands which are widely distributed all over the world in the industry of medium and small-sized wind turbines.

Enterprise Objectives

Our goal is to become an expert enterprise and a well-known professional manufacturer in the global medium and small-sized wind power manufacturing field.

Company History

In March, 1993, Anhui Develop Amorphous Equipment Co., Ltd, invested by WanWei group, was established as the parent company of Hummer.

In May, 1998, Its project department on wind turbines was founded.

In July, 2002, Hummer wind turbines were produced in a small amount and in trial sale in China.

In May., 2005, with 3 years' continuous improvement, 500W and 1KW wind turbines were finally shaped

In July., 2005, Anhui Hummer Dynamo Co. Ltd. was registered and began to manufacture wind turbines in a large scale.

In March, 2006, the first 12 sets of 500W and 1KW wind turbines were exported to France.

In Nov., 2010, Hummer 50kW wind turbines passed the strict test and were put into production.

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Products Features

- With SCF technology, light in weight, small in size, and high in efficiency
- With 2 SKF bearings, free maintenance
- The generator locating in nose cone, easy to radiate heat and reduce wind resistance
- Siemens PLC control system with high reliability
- Multiple protection: mechanical furling, electrical yawing, electromagnetic braking, manual and electric hydraulic braking
- Equipped with a closed transmission slip ring to prevent cable from being wrapped
- The blades with Airfoil design, aerodynamically optimized based on the wind tunnel test, efficient and practical
- The anticorrosive processing, like hot galvanizing and spray painting, being efficient to prevent the turbine from atmospheric, salt spray and Aeolian erosion
- CE tested and certified
- Grid-tied, off-grid, wind-grid power supply system plans on an individual project basis
- Guyed tower, free standing tower, hydraulic tower for different customers' demands

Company Honor

Production at a glance


Generator Winding


Vacuum Paint Dipping

Hummer has a complete production line of wind turbine system with a series of quality guarantee system from start to end so as to maintain the high quality of product.


Control Cutting


Machinery Processing


CNC Lathe Processing


Generator Testing


Blade Static Balance Adjustment


System Integradted Testing


Inspection before Sealing


Ready for Delivery

SCF Supercritical Generator Technology

SCF supercritical generator technology, as the core of Hummer wind turbine, has won gold award of the 37th World Invention Exposition in Brussels Eureka, as well as several international and national patented certificates, including the international patents--big series generator, and the national patents--infinitely adjustable-speed generator, the new structure permanent magnet generator, New permanent magnetism wind turbine etc. This technology can widely replace the traditional generator technology and it marks great innovation in the field of generator technology.

SCF generator technology takes advantage of special structure and materials to make the generator operate in critical state, which can make full use of generator's materials, lower its volume, weight, and improve its working efficiency in a large extent. Hummer applies this technology in the field of wind turbines and has successfully developed Hummer wind turbines.

Hummer SCF generator differs from traditional ones as follows:
Smaller size and lighter weight: 1/3-1/5 of traditional ones; for example, the traditional 500W generator is 25kg, while Hummer's is only 6.5kg.

Higher generation efficiency: 10%-30% higher than traditional ones; for example, the traditional 1KW wind turbine outputs 300-650W at the wind speed of 8m/s, while Hummer's will output 800W at the same wind speed.

More unique structure: Hummer SCF generator locates in nose cone easy to radiate heat and reduce wind resistance, also suitable to operate in all weather conditions.

Easier assembly: with enough light SCF generator, 400W-2KW Hummer wind turbines can be assembled by manpower, the installation and erection cost saved.

Lower noise: Hummer SCF generator, over 10% lower than traditional ones

Siemens PLC and Touch Screen for Hummer Control System

With rigorous system, good integration and strong specialization, Siemens PLC features with small volume, standard design, high reliability as well as strong network communication ability. It can well realize the complex control for one or more associations.

The touch controlling interface, matching with PLC control module, offers users various data and images display as well as the functions of manual and remote control.

Hummer 3KW-50KW wind turbines adopt Siemens PLC control module with touch screen, which is capable of quick reaction to wind signal. If any abnormal situations occur, the controller will alarm and adjust the running status of the wind turbine automatically to protect the system.

Users can monitor various data like the generator rotate speed, temperature, current, voltage, power, frequency, wind direction, wind speed etc from the screen; Users can use touch screen to fulfill the manual seek wind, manual stop and forced start-up. Remote control can also be realized by internet.

SKF Bearings, etc. for High-Quality Hummer wind turbines

Hummer wind turbine adopts the SKF (Svenska Kullager Fabriken) bearings, which is produced by the largest bearing manufacturer in the world. With the perfect internal geometric structure, rough surface, stable inner and outer ring, its advantages are more obvious.

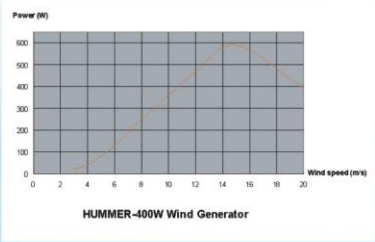
Wide temperature ranges: operation in the high temperature (150-350℃) and low temperature (-50℃)

Long life span, reach up to 60000-100000 hours. User may not change the bearing during the wind turbines using. It can greatly reduce the maintenance costs.

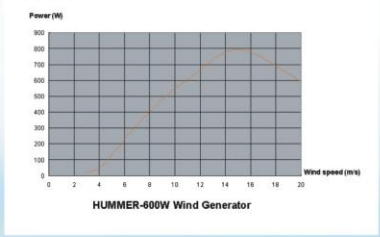
Wind Turbine 400W-600W Small wind turbine for streetlight

Specifications

Model	H1.25-400W	H1.25-600W
Rated power(W)	400	600
Maximum output power（W）	600	800
Battery bank voltage (Vdc)	12	24
System output voltage (Vdc)	12	24
Start-up wind speed (m/s)	2.5	2.5
Rated wind speed (m/s)	11	11
Working wind speed(m/s)	3-25	3-25
Survival wind speed(m/s)	50	50
Generator efficiency	>0.8	>0.8
Wind energy utilizing ratio (Cp)	0.4	0.4
Generator type	Permanent Magnet Alternator	
Generator weight (kg)	5.5	7
Blade material/ quantity	GRP/ 3	GRP/ 3
Blade diameter（m）	Ø1.25	Ø1.25
Speed regulation method	Yawing + Electromagnetism braking	
Shutting down method	Manual +Automatic	

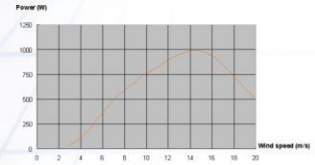


HUMMER-400W Wind Generator

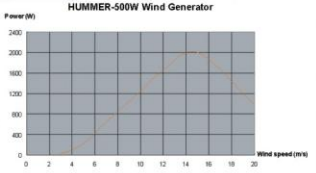


HUMMER-600W Wind Generator

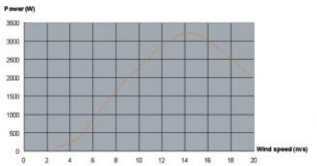
Wind Turbine 500W-2KW



HUMMER-500W Wind Generator



HUMMER-1KW Wind Generator



HUMMER-2KW Wind Generator

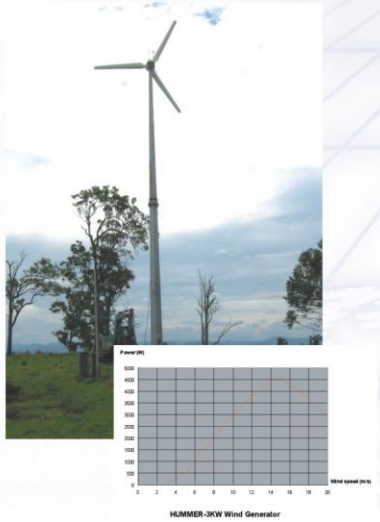
Specifications

Model	H2.7-500W	H3.1-1KW	H3.8-2KW
Rated power(W)	500	1000	2000
Maximum output power（W）	1000	2000	3200
Battery bank voltage (Vdc)	24	60	120
System output voltage (Vac)	110/220	110/220	110/220
Start-up wind speed (m/s)	3	3	3
Rated wind speed (m/s)	7	9	9
Working wind speed(m/s)	3-25	3-25	3-25
Survival wind speed(m/s)	50	50	50
Generator efficiency	>0.78	>0.8	>0.8
Wind energy utilizing ratio (Cp)	0.48	0.45	0.45
Generator type	Permanent Magnet Alternator		
Generator weight (kg)	6.5	15	25
Blade material/ quantity	GRP/ 3	GRP/ 3	GRP/ 3
Blade diameter（m）	Ø2.5	Ø3.1	Ø3.8
Speed regulation method	Yawing + Electromagnetism braking		
Shutting down method	Manual +Automatic		

Wind Turbine 3KW-5KW

Specifications

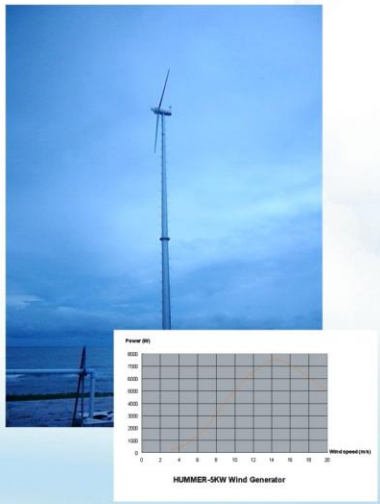
Model	H4.6-3KW
Rated power(W)	3000
Maximum output power（W）	4500
Battery bank voltage (Vdc)	180
System output voltage (Vac)	110/220
Start-up wind speed (m/s)	2.5
Rated wind speed (m/s)	10
Working wind speed(m/s)	3-25
Survival wind speed(m/s)	50
Generator efficiency	>0.8
Wind energy utilizing ratio (Cp)	0.4
Generator type	Permanent Magnet Alternator
Generator weight (kg)	71.8
Blade material/ quantity	GRP/ 3
Blade diameter（m）	Ø4.8
Speed regulation method	Yawing+electromagnetism braking (Optional hydraulic braking)
Shutting down method	Manual + Automatic



HUMMER-3KW Wind Generator

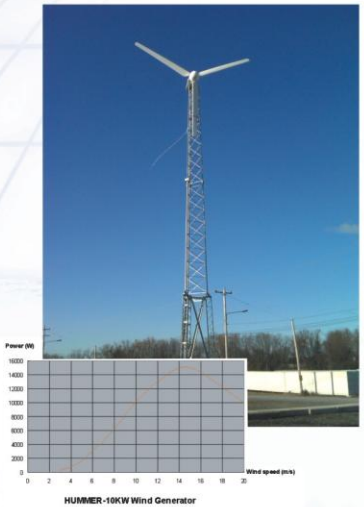
Specifications

Model	H6.4-5KW
Rated power(W)	5000
Maximum output power（W）	7500
Battery bank voltage (Vdc)	240
System output voltage (Vac)	110/220/380
Start-up wind speed (m/s)	2.5
Rated wind speed (m/s)	10
Working wind speed(m/s)	3-25
Survival wind speed(m/s)	50
Generator efficiency	>0.8
Wind energy utilizing ratio (Cp)	0.4
Generator type	Permanent Magnet Alternator
Generator weight (kg)	147
Blade material/ quantity	GRP/ 3
Blade diameter（m）	Ø6.4
Speed regulation method	Yawing+electromagnetism braking (Optional hydraulic braking)
Shutting down method	Manual + Automatic



HUMMER-5KW Wind Generator

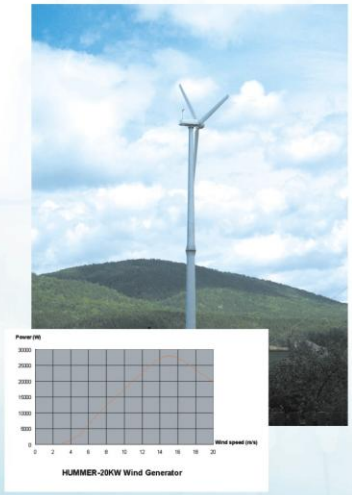
Wind Turbine10KW-20KW



HUMMER-10KW Wind Generator

Specifications

Model	H8.0-10KW
Rated power(W)	10000
Maximum output power（W）	15000
Battery bank voltage (Vdc)	240
System output voltage (Vac)	110/220/380
Start-up wind speed (m/s)	3
Rated wind speed (m/s)	10
Working wind speed(m/s)	3-25
Survival wind speed(m/s)	50
Generator efficiency	>0.85
Wind energy utilizing ratio (Cp)	0.4
Generator type	Permanent Magnet Alternator
Generator weight (kg)	287
Blade material/ quantity	GRP/ 3
Blade diameter（m）	Ø8.0
Speed regulation method	Yawing+electromagnetism braking (Optional hydraulic braking)
Shutting down method	Manual + Automatic



HUMMER-20KW Wind Generator

Specifications

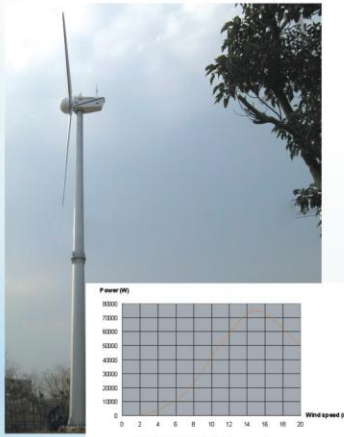
Model	H9.0-20KW
Rated power(W)	20000
Maximum output power（W）	28000
Battery bank voltage (Vdc)	240
System output voltage (Vac)	220/380
Start-up wind speed (m/s)	3
Rated wind speed (m/s)	11.5
Working wind speed(m/s)	3-25
Survival wind speed(m/s)	50
Generator efficiency	>0.85
Wind energy utilizing ratio (Cp)	0.4
Generator type	Permanent Magnet Alternator
Generator weight (kg)	496
Blade material/ quantity	GRP/ 3
Blade diameter（m）	Ø9.0
Speed regulation method	Yawing+electromagnetism braking (Optional hydraulic braking)
Shutting down method	Manual + Automatic

Wind Turbine 30KW-50KW

HUMMER-30KW Wind Generator

Specifications

Model	H10.0-30KW
Rated power(W)	30000
Maximum output power（W）	45000
Battery bank voltage (Vdc)	360
System output voltage (Vac)	380
Start-up wind speed (m/s)	2.5
Rated wind speed (m/s)	11
Working wind speed(m/s)	3-25
Survival wind speed(m/s)	50
Generator efficiency	>0.92
Wind energy utilizing ratio (Cp)	0.42
Generator type	Permanent Magnet Alternator
Generator weight (kg)	680
Blade material/ quantity	GRP/ 3
Blade diameter（m）	Ø10.0
Speed regulation method	Yawing+electromagnetism braking /hydraulic braking
Shutting down method	Manual + Automatic



HUMMER-50KW Wind Generator

Specifications

Model	H12.0-50KW
Rated power(W)	50000
Maximum output power（W）	75000
Battery bank voltage (Vdc)	400
System output voltage (Vac)	380
Start-up wind speed (m/s)	2
Rated wind speed (m/s)	11
Working wind speed(m/s)	2.5-25
Survival wind speed(m/s)	50
Generator efficiency	>0.92
Wind energy utilizing ratio (Cp)	0.42
Generator type	Permanent Magnet Alternator
Generator weight (kg)	1200
Blade material/ quantity	GRP/ 3
Blade diameter（m）	Ø12.0
Speed regulation method	Yawing+electromagnetism braking /hydraulic braking
Shutting down method	Manual + Automatic

Tower Options

Guyed Tower

Made by connection of high strength steel tubes and processed by galvanization and spray-painting, it features with low cost, convenience of assembling and delivery. It is well suitable for applications in prairie or other remote and open areas where the crane is not accessible.
Standard height: 6m-12m;
Diameter: 76mm-220mm;
Suitable models: 500W-5KW.
Customized tower is also available upon requests.

Free Standing Tower

With multiple rhombus taper structure, it is made of fine steel and strong enough to resist heavy wind. The tower surface can be well anticorrosive and rust-proof after being hot galvanized and spray painted. Concise in appearance and small in occupation area.
Standard height: 8m-25m;
Suitable models: 1KW-50KW.
Customized tower is also available upon requests.

Hydraulic Tower

Automatically erect up and lay down thanks to the hydraulic pump system, it's pretty easy for turbine assembling and maintenance in addition to be the merit of ordinary free standing tower; it will be your wise option for remote areas where the crane is not accessible.
Standard height: 8m-18m.
Suitable models: 2KW-30KW.

Model:500W-2KW

RotorBlade:
with airfoil structure; made of glass reinforced plastic

Generator:
extremely light and small, low in sound, swift in startup, quick in heat dissipation, high in efficiency (>0.8)

Yaw Shaft:
with the slip ring to ensure the rotation at 360°

Nose Cone:
made of reinforced aluminum alloy, antisepsis casting

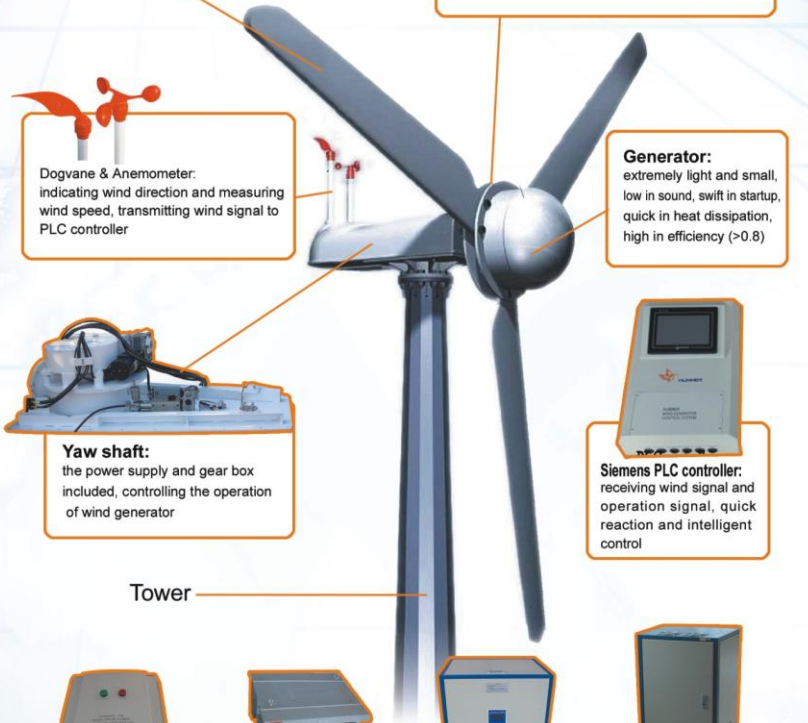
Tail Pole & Tail Wing:
connecting the body of wind turbine through bearing, more sensitive

Tower:
made of high quality steel, spray painting and galvanization, salt and acid proof, UV-Proof

Off-Grid Inverter:
integrating the functions of battery charger, inverter, controller;diversion lights included; a spare terminal ofsolar panel on the back

Grid-Tied Inverter:
adopting MPPT and IGBT technologies, with high power generating capacity, wide AC voltage range

Model:3KW-50KW



Blades

Hydraulic Brake:
brake block assembled in the flange of wind generator for hydraulic braking

Dogvane & Anemometer:
indicating wind direction and measuring wind speed, transmitting wind signal to PLC controller

Generator:
extremely light and small, low in sound, swift in startup, quick in heat dissipation, high in efficiency (>0.8)

Yaw shaft:
the power supply and gear box included, controlling the operation of wind generator

Siemens PLC controller:
receiving wind signal and operation signal, quick reaction and intelligent control

Tower

Rectifier:
rectifying and controlling the dumping load

Dumping Load:
metal dumping box, heat dissipation by air convection, without the fan and the controlling box

Grid-Tied Inverter:
adopting MPPT and IGBT technologies, with high power generating capacity, wide AC voltage range

Off-Grid Inverter:
adopting SPWM technology, amorphous transformerand high frequency breaker, with high converting efficiency, outputting stable frequency, stable voltage, filtering out noise, low distortion of pure sine wave

Wind-Solar Hybrid Street Lamp System

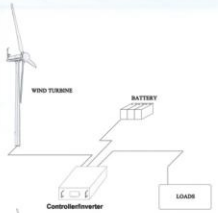
Configuration Reference

Products Accessories	Specifications	
Wind Turbine	Hummer 400W specially for wind-solar hybrid street lamp system	Hummer 600W specially for wind-solar hybrid street lamp system
LED Lamp	22W, 3000LM, 20LUX on the floor, Color Temperature: 4000-6000K	45W, 3600LM, 25LUX on the floor, Color Temperature: 5000-7000K
Solar Panel	12V 80W*1PCS, mono crystalline silicon, Conversion efficiency 16-17%	12V100W*2PCS, mono crystalline silicon, Conversion efficiency 16-17%
Free Maintenance Storage Battery	12V 120AH *1PCS	12V 150AH*2PCS
Wind-Solar Hybrid Controller	Charging, Over-charging and over-discharging protection; Microcomputer timer switch	
Lamp Pole	9m, fine steel, galvanized anti-corrosion and rust-proof	
Optional Accessories	Battery moisture-proof box, support, cables, etc	
Working Time	8 hours per day, 3 -5 overcast and rainy days	
Wind Resistance	33m/s (12 Grade typhoon)	

Applications

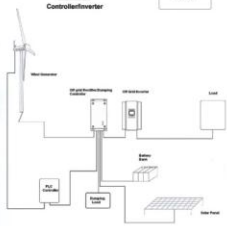
Solution 1

Distributed Off-Grid Wind Turbine System
Applicable models: 500W-50KW.
Operation principle: the electricity from wind generator charges the batteries after being rectified and powers the loads through the inverter.
Features: intelligent charging and discharging, independent power supply.



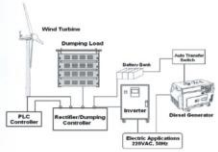
Solution 2

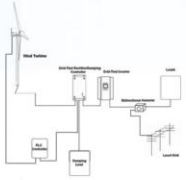
Wind-Solar Hybrid Power-Supply System
1. Applicable models: 500W-50KW.
2. Operation principle: the electricity from wind generator and solar panels charges the batteries after being rectified and powers the loads through the inverter.
3. Features: solar energy as complementary when no wind or low wind, wind energy as complementary when no sunlight or poor sunlight; the wind-solar complementary with independent power supply.



Solution 3

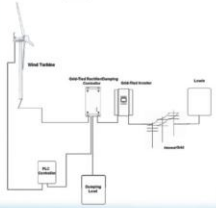
Wind-Solar-Diesel Hybrid Power Supply System
1. Applicable models: 1KW-50KW.
2. Operation principle: the electricity from wind generator and solar panels charges the batteries after being rectified and powers the loads through the inverter. Diesel generator serves as standby when wind and solar energy can meet the power demands.
3. Features: wind turbine and solar panel as the main power supply with diesel generator as standby to guarantee the steady power demands.





Solution 4

Distributed Grid-Tied Wind Power System
1. Applicable models: 1KW-50KW.
2. Operation principle: the electricity from wind generator outputs to the gird-tied inverter after being rectified. When the input DC voltage reaches up to the start-up voltage, the inverter will merge into state grid.
3. Features: wind power merging into state grid.



Solution 5

Distributed Wind-Grid Dual Wind Power System
1. Applicable models: 5kW-50KW.
2. Operation principle: the electricity from wind generator connects with state grid; Wind power has the priority to be used. The grid automatically supplements when without enough wind power; the surplus energy will be consumed by dumping load.
3. Features: batteries-free configuration; the electricity from wind generator connecting with state grid.


1KW-GE


2KW-ZM


10KW-KR


1KW-IQ


3KW-AU


5KW-DK


20KW-RU


3KW-JP


50KW-CN


1KW-CUR


1KW-PL


5KW-CA


500W-HU


500W-SA


500W-NZ


3KW-TR


2KW-FR


1KW-IL


5KW-TH


20KW-US