

# Horizontal Wind Turbine Catalogue

Model: GH-2KW    Horizontal axis wind turbine    On-grid|Off-grid system

## Overview

GREEF GH-2KW wind generator is the conversion of wind energy into mechanical energy first and electric energy afterwards. This equipment can fully make use of wind power to recharge a battery, and also can saved energy into ac source alternating current. Without the necessity of fuel, the GH-2KW wind generator is pollution free and far away from noise. The GH-2KW wind generator is generally applicable to the area which has good condition but is far away from the power grid, or the power grid is not normal. The GH-2KW generator can supply lighting, the television set, the searchlight, the communication equipment, the power tool and other household appliances.

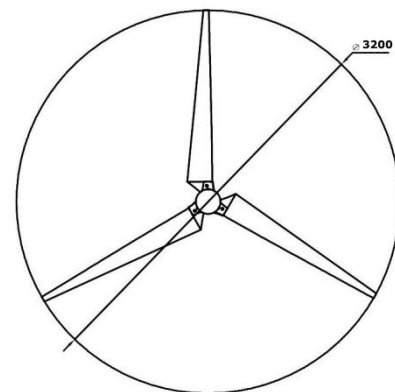
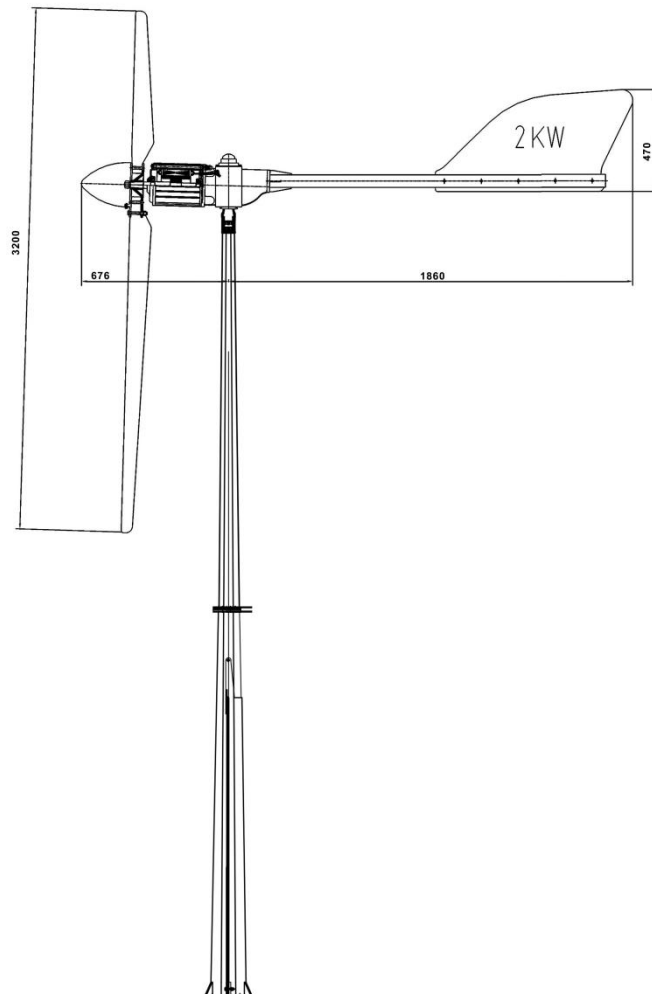


## Recommended for:

- Household,Garden,farm,Urban ,Rooftop
- Telecommute sites.
- Rural electrification programs. Island , sentry, island, sight lighting

## Technical specification

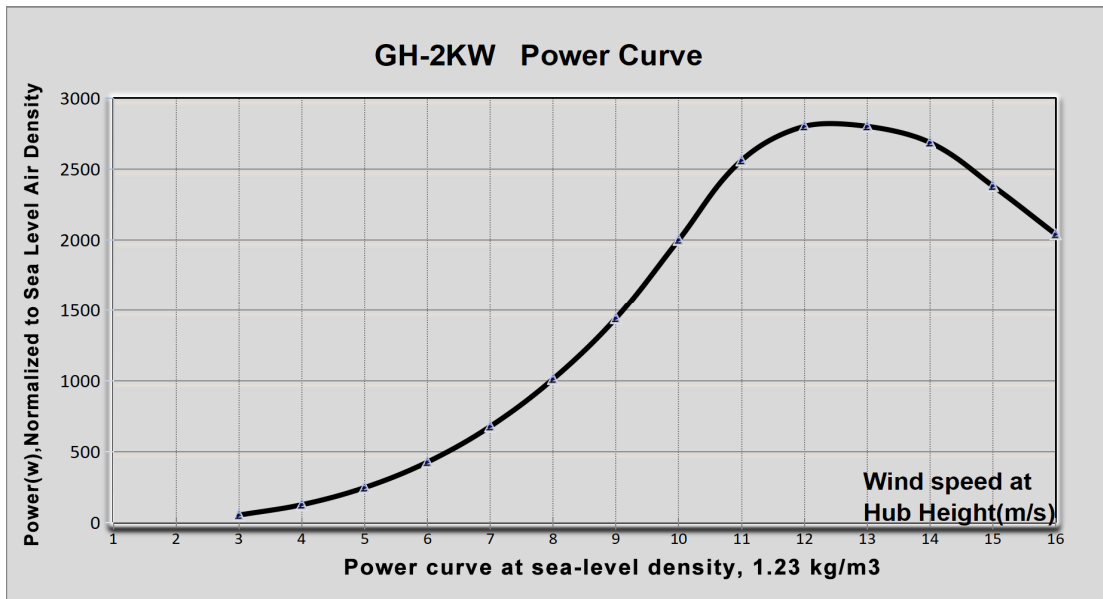
Model	GH-2KW
<b>Performance</b>	
Rated Power	2000W
Start Wind Speed	3m/s(6.72mph)
Rated Wind Speed	10m/s(22.4mph)
Working Wind Speed	3-25m/s(6.72-56 mph)
Safety Wind Speed	40m/s(89.6mph)
<b>Physical Parameters</b>	
Blades Length	1.6M(5.25ft)
Blades Rotor Diameter	3.2M(10.50ft)
Blades Material &Quantity	FRP /3PCS
Top Weight	68kg
Swept Area	8.04 m <sup>2</sup>
Tower Height	6m(19.68ft.) Free Folding Tower



### Generator Parameters

Generator Type	Permanent Magnet Generator
Rated Speed	400RPM
Start Torque	0.8N.M
Option Voltage	24-350VAC
Protection Method	Electromagnetic Brake +PWM
Protection Grade	IP54
Working Temperature	-40-50°C
Life time	20 Years

## Power Curve



## Annual Energy Production

Model	Annual Wind Speed (m/s)	3	4	5	6	7
GH-2KW	Production (kWH)	421	998	1949	3367	5347

This data will have  $\pm 10\%$  difference according to real condition.

## Sound Data

Test position: At 15m away from generator (average value of 3 point-rears, left, right.)

Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Sound( dB )	18.6	20.5	25.9	27.9	30.5	33.5	38.2	39.6	43.6
Wind Speed (m/s)	12	13	14	15	16	17	18	19	20
Sound( dB )	44.8	46.3	49.6	52.3	55.4	57.6	61.2	64.3	66.5

Note: The sound value includes wind noise.

## Pictures





## Accesses Details Pictures

### Generator

Aluminum Alloy shell



Light & antirust

Copper wires



Long lifetime Good performance in high temperature

Magnetic steel



NdFeB permanent Magnet

### Blades



FRP longlife time

### Nose Cone



FRP longlife time

### Hub Plate



Iron steel Electrostatic spraying

### Tail



Electrostatic spraying





### Bolts



Stainless steel

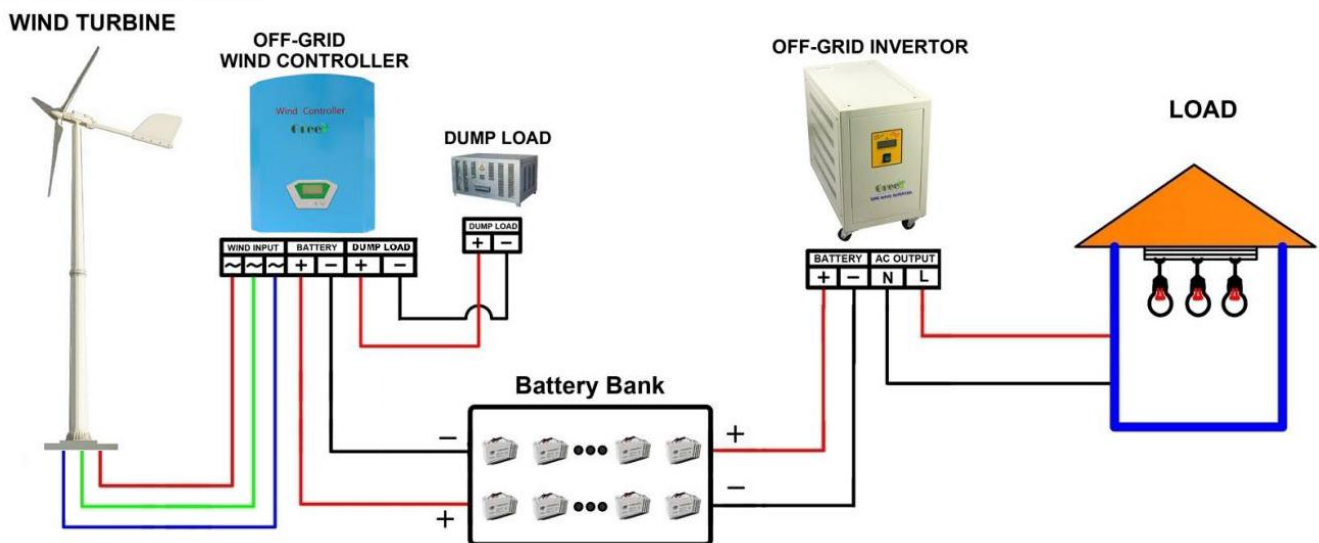


## Optional Tower Type

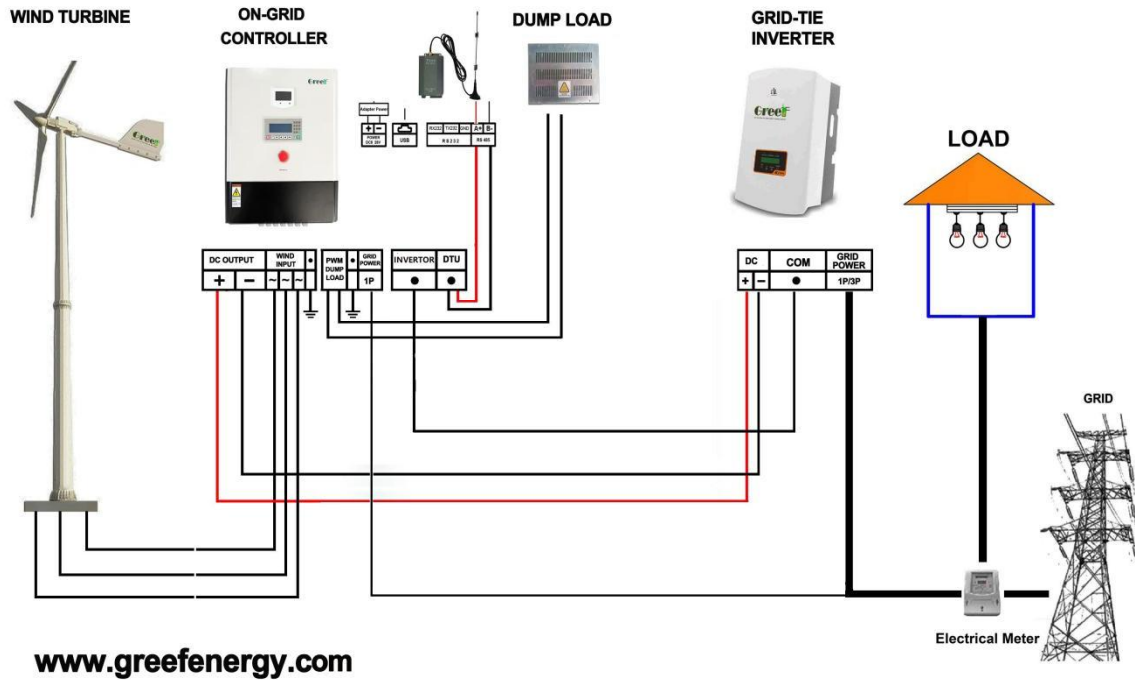
 <p>Free Stand Tower</p>	 <p>Free Folding Tower</p>	 <p>Hydraulic Tower</p>	 <p>Guy Wire Tower</p>
<p>Cost : Middle Package size:Middle Installation need crane, Small floor space</p>	<p>Cost :Second high Package size:Small Installation very easy no need crane, need small area</p>	<p>Cost : Highest Package size:Bigger Installation easy no need crane, need small area</p>	<p>Cost : Lowest Package size:Smallest Installation need biggest area</p>

## System solution Diagram

### **OFF-GRID WIND POWER GENERATOR SYSTEM**

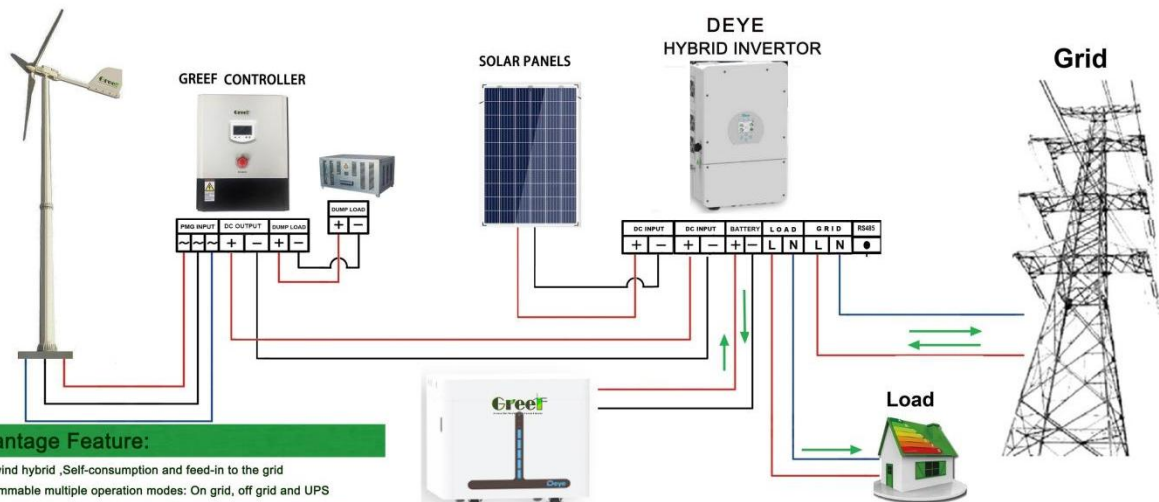


**Greef** **GREEF GRID TIED SYSTEM WIRING DIAGRAM**



**HYBRID SYSTEM SOLUTION**

GREEF WIND TURBINE



**Advantage Feature:**

- ◆ Solar wind hybrid ,Self-consumption and feed-in to the grid
- ◆ Programmable multiple operation modes: On grid, off grid and UPS
- ◆ Configurable AC/Solar/Wind Generator Charger priority by LCD setting
- ◆ Compatible with Grid or generator power
- ◆ With limit function, prevent excess power overflow to the grid
- ◆ Smart settable three stages MPPT charging for optimized battery performance
- ◆ Time of use & Smart Load function

48V BATTERY BANK

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