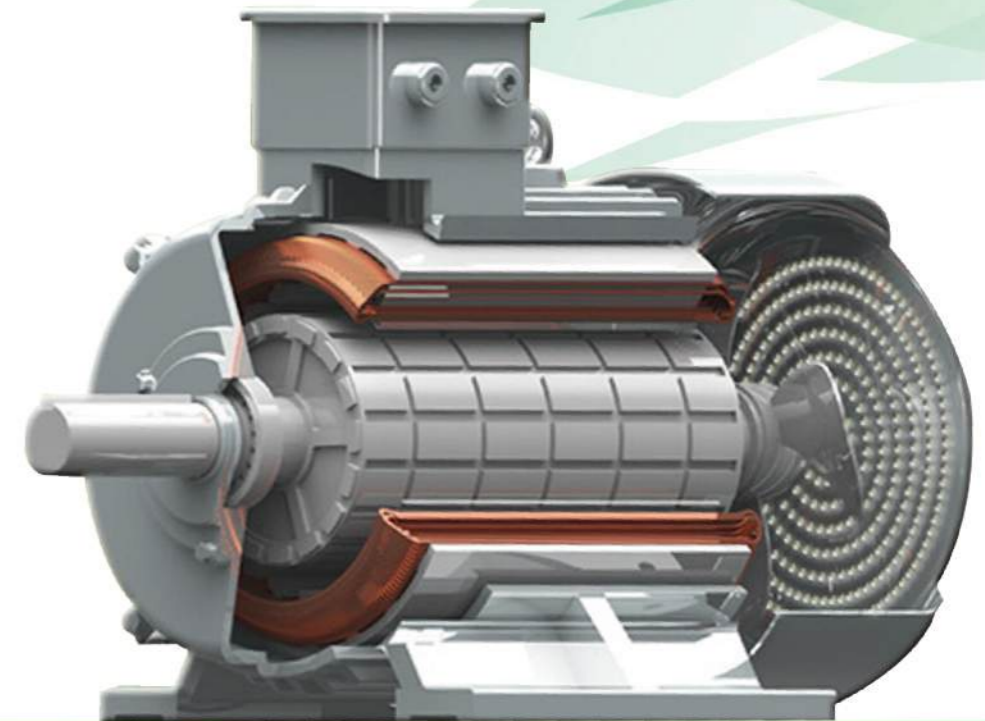


PRODUCT BROCHURES

Permanent Magnet Generator



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🌐 www.greefenergy.com | greefenergy.en.alibaba.com | qd-greef.en.made-in-china.com

Global Marketing Center: No. 6 Changcheng South Road, Chengyang District, Qingdao City, Shandong Province, China.

Factory: Zhenhua Road, Qingchun Chuangye Development, Tai'an City

Company Introduction

GREEF NEW ENERGY is global supplier which focus on Wind, Solar and Hydro generation system solution .

We provide customized system solution which suitable for off-grid , grid-tied and hybrid system for renewable energy system. GREEF own our own factory manufacture permanent magnet generator from 300W to 5MW. Wind turbine Blades until 200kw, grid-tied wind turbine controllers until 2MW and own patent control system for controllers .

Our solar&wind turbines are installed all over the world. 50% staff in our engineer team have 12-20 years' experience in the field, we can help clients to customize overall system solution with strong flexibility and competitive capabilities, our service that can be delivered include but are not limited to: overall design plan, principle drawing, 3D renderings, sample physical, bulk product delivery, quality control, and after-sales service. With a fast service system, we can assist our customers to save cost and time.

GREEF Products have been export to all over the world, like Europe, South America, North America and other countries. All products have CE approvals with 3 to 5 years warranty, the quality and on-time delivery are guaranteed by Alibaba.

Since the start of the company, we have been passionate believers in our mission to provide cheaper, reliable electricity through the power of renewable energy. Your support and belief in what Greef lives for, starting with our motto "Power the world with green energy", has allowed us to rapidly innovate and become a responsible supplier in distributed renewable energy.



Why Choose Us



Bureau, SGS, TUV Verified Supplier



Top 3 suppliers of generators products with all 5-star on Alibaba.com



Products quality and on time delivery are guaranteed by Alibaba.com



11 years' experience engineer & QC team



Focus on after-sales service



One-stop customized system solution



Trade experience with more than 60 countries

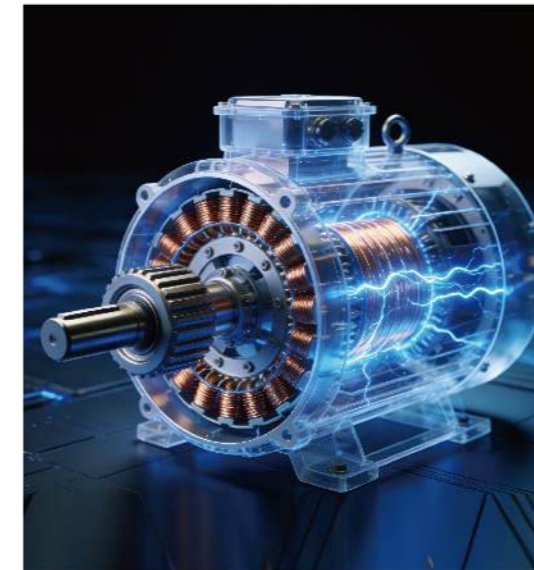


CE, RoHS certificated



OEM,ODM are accepted

Permanent Magnet Generator Product Overview



Permanent Magnet Generator Introduce

Permanent magnet generators are innovative devices that utilize permanent magnets to generate a magnetic field, efficiently converting mechanical energy into electrical energy.

Operating Principle

Mechanical energy (e.g., wind, hydropower) drives the generator shaft, causing the rotor to spin. The permanent magnets on the rotor create a rotating magnetic field, which interacts with the copper windings in the stator, inducing an electric current.



Scan the QR code

Key Features



High efficiency, reliability, and low maintenance requirements



Capable of generating power at variable speeds



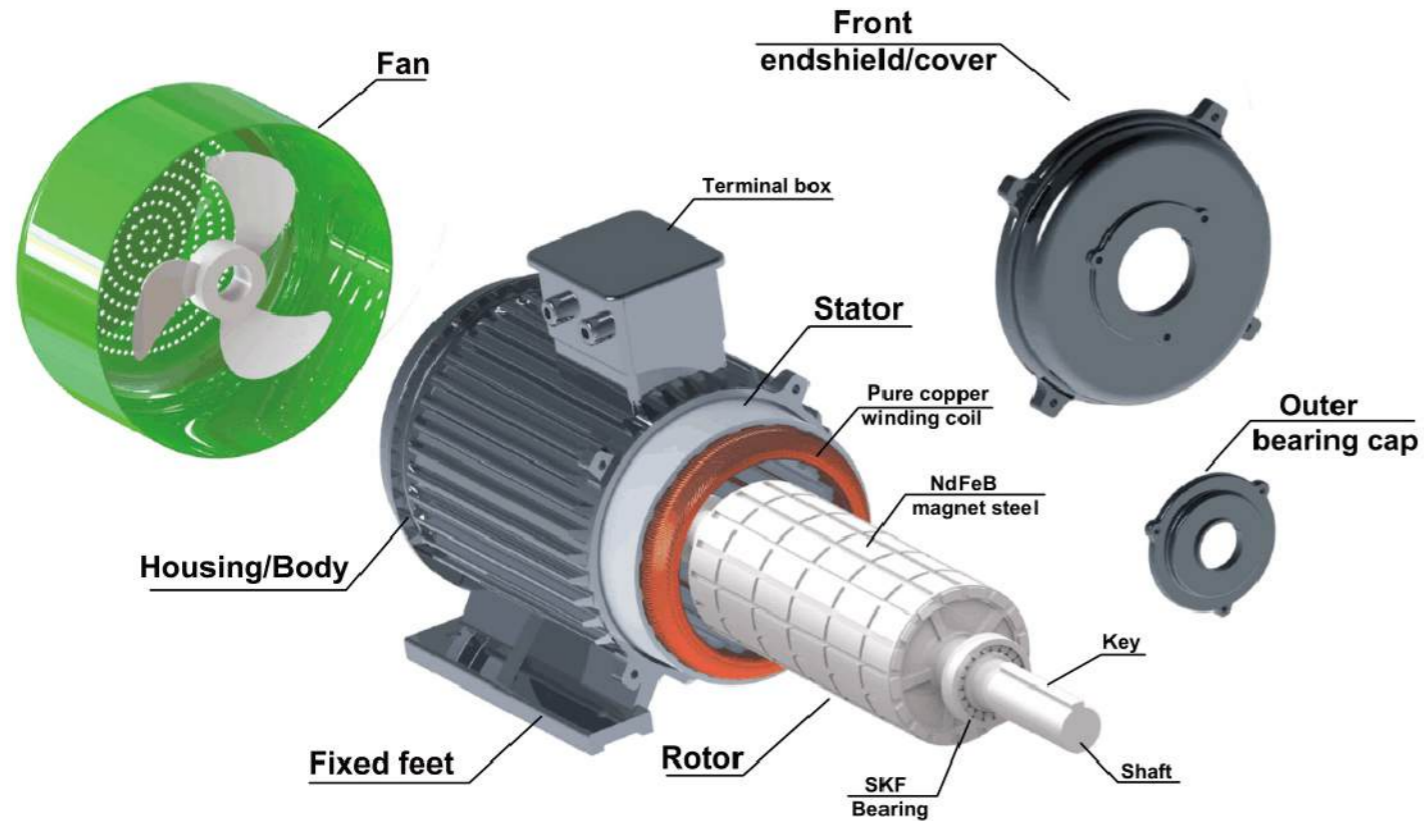
Requires a converter (controller and inverter) to stabilize output voltage and frequency

Typical Applications

These generators support a wide range of applications, including hydroelectric and wind turbines, tidal and wave power generation, and renewable energy research and development.

Based on these principles, permanent magnet generators deliver stable and efficient conversion of mechanical energy into electrical energy, providing reliable power for various clean energy systems.





Option Installation Type

B3	B3	B3 with Cooling fan	B3 Water cooling
B35 with Cooling fan	B35(Down B5)	B35(Front B5)	B35(Double B5)
Front B5 +cooling fan	Down B5	Double B5	Double B5

Pictures		
Items	Permanent Magnet Generat	Excitation Generator
Working Principle	Under the action of external force,the mechanical energy is converted into electrical energy by the magnetic energy of the permanent magnet. During the energy conversion process, the magnetic energy of the permanent magnet itself is not reduced.	Under the action of external force, the machine uses the electromagnetic induction principle of the wire to cut the magnetic field to induce the potential, and the mechanical energy of the prime mover is changed into the electric energy output.
Working Speed	Any variable speed between 20-3000rpm	Only at stable speed 1200rpm, 1500rpm or 1800rpm
Carbon brush	NO NEED	NEED
Collecting slip ring	NO NEED	NEED
Volume	Smaller	Bigger
Weight	Lighter	Heavier
Excitation control	NO NEED	NEED
Structure	Simple	Complex
Failure rate	Lower	Higher
Efficiency	90-99%	80-85%
Power Factor(PF)	≈1	0.8
Single Max Capacity	5MW	600MW
Lifetime	15-20years	5years
Temperature rise	Lower 2-10℃	Higher 2-10℃
Noise level	Lower	Higher

Product Parameters

MODEL	20RPM	30RPM	60RPM	100RPM	150RPM	200RPM	250RPM	300RPM	350RPM	400RPM	450RPM	500RPM	600RPM	750RPM	900RPM	1000RPM	1500RPM	1800RPM	kg	Pole Number	50HZ RPM
GDF-90	0.05	0.06	0.1	0.18	0.2	0.25	0.35	0.4	0.45	0.55	0.6	0.8	1	1.1	1.2	1.5	1.8	2.2	33	2/4/6/8/16	750/375
GDF-100	0.06	0.08	0.12	0.22	0.3	0.45	0.6	0.8	1.15	1.3	1.35	1.4	1.7	1.8	2.2	2	3	3.5	36	2/4/6/10/20	600/300
GDF-112	0.08	0.1	0.17	0.25	0.4	0.5	0.8	1.1	1.35	1.5	1.6	2	2.2	2.4	2.6	3	4	4.5	42	2/4/6/10/12/20	600/300
GDF-112+	0.1	0.12	0.2	0.3	0.5	0.6	1	1.5	1.65	1.8	2	2.2	2.6	2.6	3.2	4	5	6	48	2/4/6/10/12/20	600/300
GDF-132S	0.11	0.15	0.3	0.6	1	1.5	2	2.4	2.8	3	3.2	3.5	3.6	4	4.5	5	7.5	9	58	2/4/6/8/12/14/16/22	500/428/273
GDF-132M	0.13	0.2	0.4	0.7	1.1	1.6	2.3	3	3.2	3.5	3.7	4	4.2	4.5	5	6	11	13	64	2/4/6/8/12/14/16/22	500/428/273
GDF-132L	0.18	0.3	0.6	0.8	1.3	1.7	2.5	3.2	3.6	4	4.3	4.6	5	5	6	7	14	16	73	2/4/6/8/12/14/16/22	500/428/273
GDF-160	0.2	0.35	0.8	1.5	2.5	3	3.6	4.5	5	5.5	6.2	7	8	6	10	12	17	20	128	2/4/6/8/12/16/20/22	500/375/273
GDF-160+	0.3	0.5	1.1	2	3.6	5	6	7	7.5	8	8.5	9	10	10	13	15	20	24	136	2/4/6/8/12/16/20/22	500/375/273
GDF-180	0.35	0.6	1.3	3	4.5	6	7	8	9.5	11	13	15	18	18	20	22	25	30	162	2/4/6/8/10/12/16/20/24	500/375/300/250
GDF-180+	0.5	0.8	2	3.5	6	7	9	11	12	15	17	20	22	22	24	25	30	35	186	2/4/6/8/10/12/16/20/24	500/375/300/250
GDF-200	0.7	1.2	2.5	4.5	7	9	11	12	15	18	22	25	27	27	34	38	45	50	230	2/4/6/8/12/16/24	500/375/250
GDF-200+	1	1.5	3.5	5	9	12	13	15	18	22	25	27	29	30	37	42	50	60	260	2/4/6/8/12/16/24	500/375/250
GDF-225	1.1	2	4	8	10	13	15	17	21	26	33	40	45	45	48	52	58	65	290	2/4/6/8/10/12/14/20/24/28	428/300
GDF-225+	1.2	2.5	6	9	13	16	19	22	25	30	38	45	48	48	52	55	60	70	332	2/4/6/8/10/12/14/20/24/28	428/300
GDF-250	1.8	3	7	10	16	20	22	25	30	35	42	50	53	53	55	62	70	80	410	2/4/6/8/12/16/24	500/375/250
GDF-250+	2	3.5	8	12	18	22	25	35	40	45	50	60	65	65	70	80	100	115	440	2/4/6/8/12/16/24	500/375/250
GDF-280	2.1	4.5	9	15	20	26	33	40	50	55	63	80	90	90	100	110	120	130	680	2/4/6/8/10/12/16/20/24	500/375/300/250
GDF-280+	2.2	5	10	20	26	33	42	50	60	70	80	90	100	100	120	125	130	140	750	2/4/6/8/10/12/16/20/24	500/375/300/250
GDF-315	4.5	7	15	30	55	63	67	75	82	90	97	105	130	130	140	150	200	230	1200	2/4/6/8/10/12/16/18/20/24/30/32	500/375/300/250/200
GDF-315+	5	9	22	40	65	85	110	120	130	140	150	160	180	180	220	230	280	320	1360	2/4/6/8/10/12/16/18/20/24/30/32	500/375/300/250/200
GDF-355S	6.5	10	24	45	80	100	130	140	155	170	195	200	240	240	280	290	350	400	1680	2/4/6/8/12/16/18/24/30/32/40	500/375/250/200/125
GDF-355M	8	12	26	50	90	140	150	180	200	220	230	240	270	270	300	320	400	450	1760	2/4/6/8/12/16/18/24/30/32/40	500/375/250/200/125
GDF-355L	11	13	30	55	110	160	170	200	215	230	240	260	300	300	380	400	450	500	1850	2/4/6/8/12/16/18/24/30/32/40	500/375/250/200/125
GDF-355XL	15	22	45	80	130	180	200	220	240	260	290	320	330	330	430	450	500	550	1920	2/4/6/8/12/16/18/24/30/32/40	500/375/250/200/125
GDF-400S	20	35	90	150	200	250	280	370	450	500	550	600	700	700	840	900	1000	1100	2800	2/10/12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-400M	27	45	110	200	270	320	440	480	550	750	860	1000	1200	1200	1350	1420	1500	1600	3600	2/10/12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-400L	30	50	130	220	300	360	470	550	670	830	900	1100	1300	1300	1500	1570	1650	1760	4100	12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-400XL	45	65	150	250	350	470	550	700	850	1000	1150	1300	1420	1420	1700	1800	1900	2100	4600	12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-400XXL	50	70	180	280	400	500	600	750	900	1060	1250	1500	1750	1750	2000	2200	2400	2800	5200	12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-400XXXL	80	110	280	360	450	600	800	1000	1200	1500	1700	1900	2400	2400	2600	3000	3500	4000	7000	12/16/20/24/30/32/40/48/72	500/375/250/200/125
GDF-630	100	220	500	720	900	1100	1400	1700	2000	2200	2600	3200	3600	3600	3900	4000	4800	5500	9600	12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-710	140	350	800	1200	1600	1800	2000	2400	2800	3200	3600	4000	4200	4200	4800	5200	6000	6500	12900	12/16/20/24/30/32/40/48	500/375/250/200/125
GDF-850	180	400	1000	1400	1900	2400	2700	3200	3500	3800	4200	4600							15T	12/16/20/24/30/32	500/375/250/187.5
GDF-1000	250	500	1200	1700	2300	2800	3200	3600	4000	4400	4600	5000							20T	12/16/20/24/30/32	500/375/250/187.5



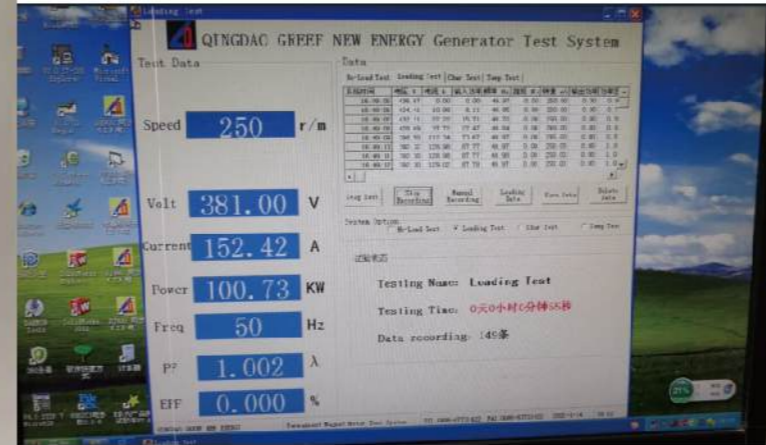
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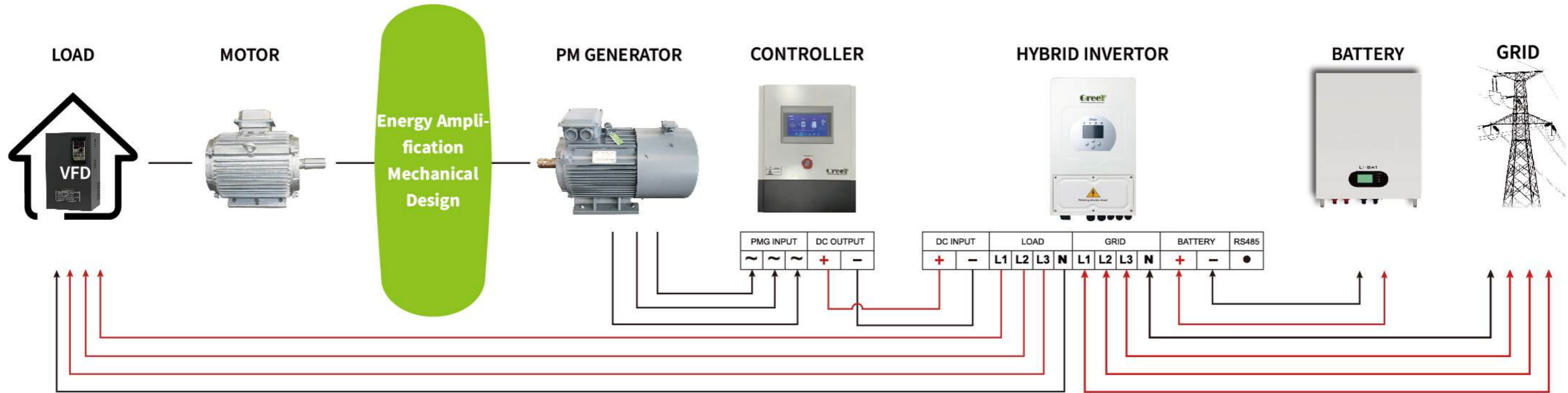
研发测试中心 A&D Testing Center



R&D Center



Self-circle Free Energy Generation System

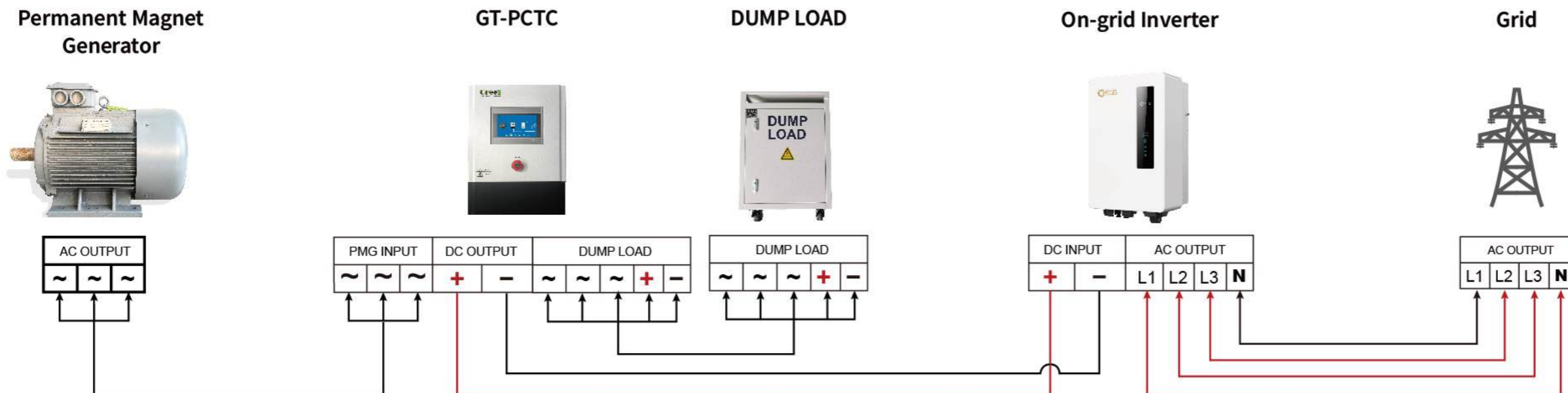


Note:

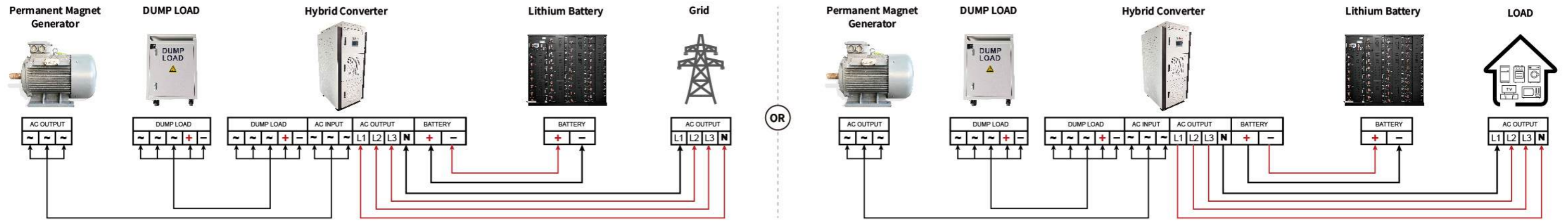
我们可以提供上图所示的所有部件。关于电机与发电机之间的机械连接装置，需要由客户自行完成设计。在电气设计方面，我们将全力提供解决方案。

We can supply all the components shown in the diagrams above. However, the mechanical device between the motor and generator needs to be designed by the customer. For the electrical design, we can provide a complete solution.

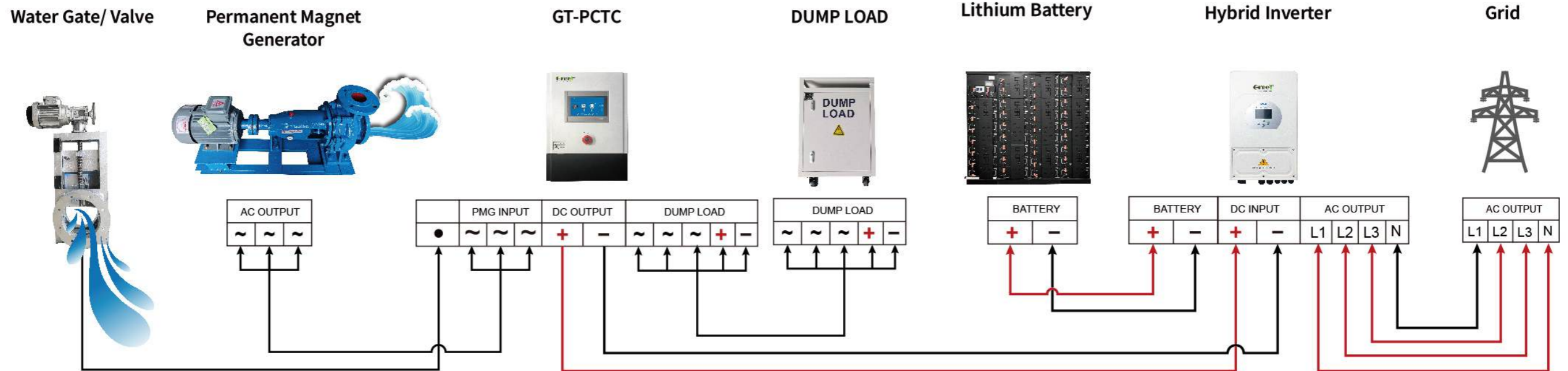
On-grid Generator System Solution



Generator-Battery Hybrid System

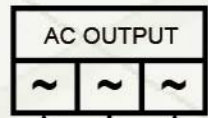


Hydro Generation System



Generator-Battery Hybrid System

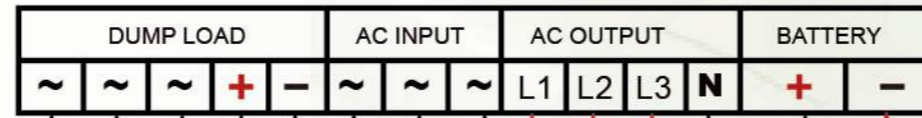
Permanent Magnet Generator



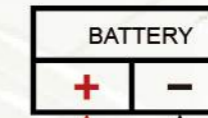
DUMP LOAD



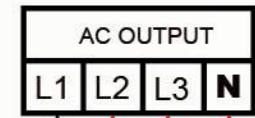
Hybrid Converter



Lithium Battery



Grid



Generator

1. Rated power: _____ KW
2. Rated voltage: _____ VAC
3. Rated speed: _____ rpm
4. Working speed range: _____ to _____ rpm
5. Generator magnet pole number: _____.
6. Application: Wind power Hydropower Electric motor or other inventions

Hybrid Converter

- Outdoor or indoor?
_____.
- Dump load need or not?
_____.

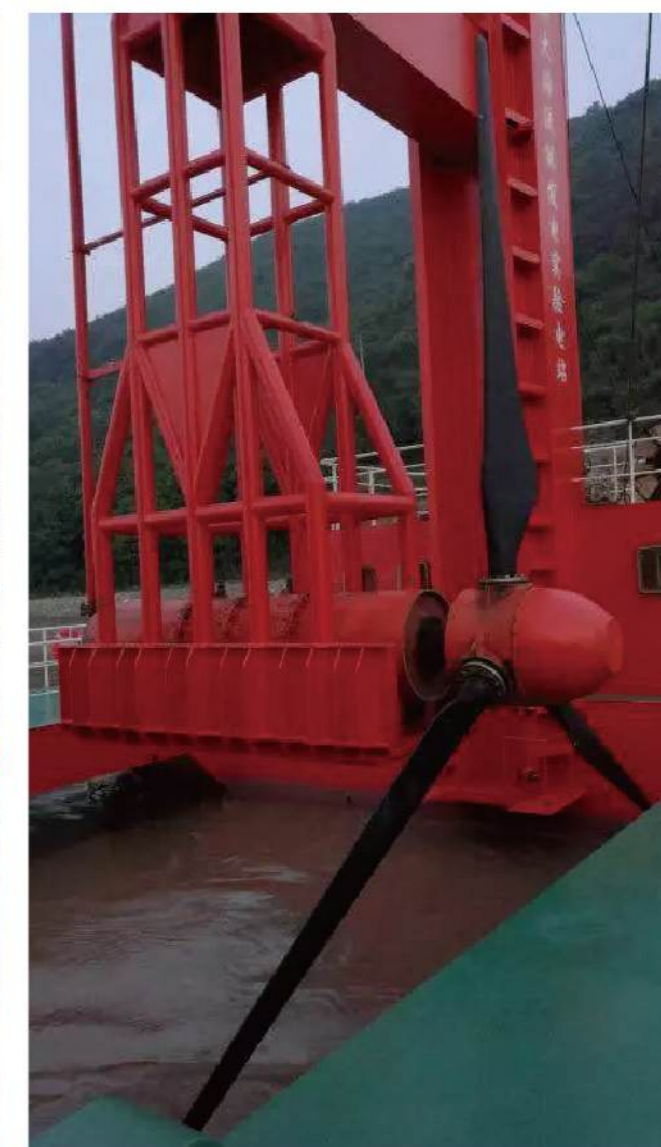
Lithium Battery

1. Capacity: _____ KWH
2. Details specification sheet
_____.
3. Modbus RTU protocol
_____.

Grid/Load

1. Grid Voltage: _____ Vac
2. Grid Frequency : _____ Hz
3. Single/three Phase: _____.
4. System: Off grid, grid tied, or hybrid working?
_____.
5. If hybrid need auto switch or manual switch?
_____.

Product Project



GREEF WIND TRACKER CONTROLLER

Product Overview



Grid-Tied Controller is technologically the most important component in wind generator on-grid systems, which convert Three AC current from wind turbine into DC current then send to the grid-tie inverter.

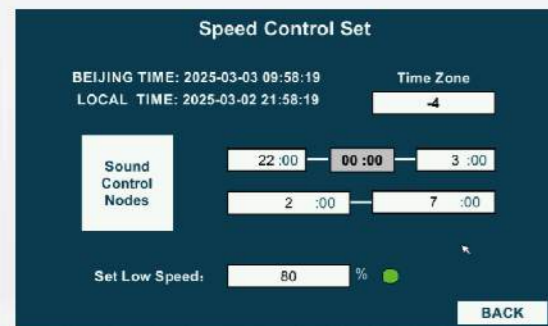
GT-PCTC series wind professional grid-tied controller which have Double safety control systems: PWM constant voltage system and three-phase dump load brake system, This innovative solution also interfaces with solar inverters from brands like Growatt, Deye, Solis, and Ivet, enabling solar inverters to adapt to wind turbine operating conditions.

LCD Touch Screen



- Power curve control function
Speed vs Power
- Monitoring of Wind Speed,
Wind Turbine Speed
- Braking Systems
PMW & Dump Load & Manual

Remote Control



- Supports remote monitoring on
PC & APP
- Communication with
Solar Inverter
- Noise period control function



HYBRID CONVERTOR

- EMS smart energy management system
- Multiple configurable operating modes: off-grid, grid-tied, and grid charging
- Double LCD smart touch Screen Display
- Generator power curve tracking technology
- AC/DC dual backup for auxiliary power supply
- Control Technology for Unbalanced Loads
- Standard RS 485 modbus RTU protocol
- PMW dump load over voltage over speed protection function (optional)
- Water gate motor control function (optional)
- WIFI/ LAN Remote monitoring and control app available (optional)
- Support customized sensor control function (optional)
- Support add Static Transfer Switch (STS) for Grid-Tie/Off-Grid Applications (optional)



Product Overview

GREEF ENERGY Hydro Grid-tied Converter integrates the capabilities of AC-to-DC rectification for Permanent Magnet (PM) generators, DC-to-AC inversion, and an intelligent energy management system. Equipped with a configurable dual LCD touchscreen, it utilizes advanced converter technology to control output power in real-time based on turbine rotational speed, achieving precise voltage/frequency regulation for Permanent Magnet Synchronous Generators (PMSGs).

The system now incorporates an intelligent water gate control function and integrates multiple sensors (including water level, flow, pressure, etc.) to establish a comprehensive safety control system, ensuring secure and stable operation. For grid connection, it supports direct grid-tied operation, enabling grid charging and energy feedback functionalities.

Technical Specifications

Rated power(kW)	100/125/150/200/250/300/500/600/700/800/1000
Optimal generator rated voltage(Vac)	400/450
Input voltage range	180V -550Vac
Rated grid voltage(V)	400
Permissible grid voltage range(v)	300-460
Rated grid frequency(Hz)	50/60
Power factor	> 0.99
Power factor range	-1~1
Protection level	IP54
Display	LCD SMART Touch Screen
Communication mode	Ethernet, RS485, WIFI



After-sales Service



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

I. Warranty period:

Permanent Magnet Generator is Three years warranty.
 OFF-GRID controller & inverter & converter is Two years warranty.
 ON-GRID Wind inverter is Two years warranty.
 Battery is Four 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).