GHESS 5.2_7.2KWH

5.2kW/7.2kWh Most Affordable Solar Battery Storage Solution

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System Overview

① Hybrid Inverter

① **Powervortex 5200 hybrid inverter**
The inverter converts the DC power generated by PV modules into AC power. The electricity is primarily used by the loads, then charged into the battery packs, only excess power is fed into the utility grid.
In combination with batteries, this hybrid inverter helps maximizing the PV self-use in the household.

② Lithium-ion battery packs

②**7.2kWh Lithium battery packs**
Lithium battery system stores the energy generated by PV modules and increases self-use from 30% to 70%; 2.4kWh battery modular design, 3 modules totaling 7.2kWh in a standard system.

③ Energy Meter

③ **ADL100-E/C energy meter with CT**
Adopt the 1-phase bi-directional energy meter for communication, hybrid inverter controls when to charge/discharge according to the data from the meter.

- **Competitive price with full functions**
- **Plug&play, easy installation**
- **Use your solar energy at any time**
- **Protect your family from power outages**

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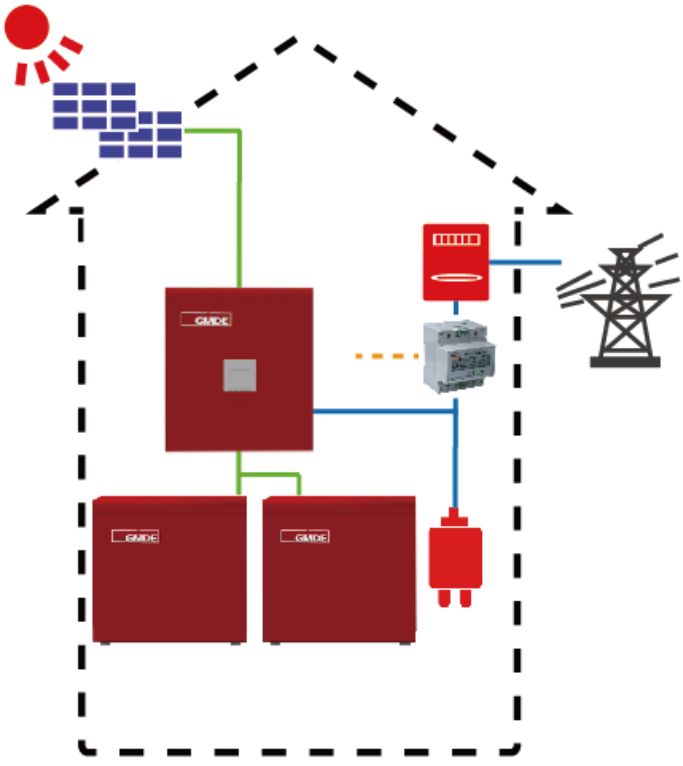
Application

PV Storage System with Backup



Lithium battery system stores the energy generated by PV modules. Powervortex battery storage system optimizes self-use up to 70% and shifts the energy use from peak to off-peak/shoulder, making the clients more independent on energy use and saving household electricity bill. Integrated backup function protects the family from power outages.

1. When the grid is normal:

① **Maximizing Self-use mode:**

- **Daytime:** If there is enough sunshine, energy generated by PV supplies the load first and then charges battery packs; if the load power is covered and battery is fully charged, surplus energy will be fed into the public grid to win the FIT tariff; grid export limit is also an option.
- **Night or no enough sunshine:** the hybrid system first discharges the battery packs to cover the load; if the energy is still not sufficient, the grid will power the rest family load.

② **Time of Use mode:**

After setting the charging and discharging time via LCD display, the system can charge the battery packs during the off-peak time (charging time) and discharging the battery during the peak time (discharging time), which realizes the Time of Use based on different electricity prices.

2. When the grid failed or abnormal:

- **Auto-switch to off grid:** it has integrated backup function. When the device sensors the drop/change of the grid voltage, it disconnects the relay completely and then shifts from on-grid to off-grid mode. Under the off-grid mode, the important load is powered by battery;
- **Auto-switch to on grid:** When the device sensors that the grid is back to normal, it stops running under off-grid mode and closes it's internal relay. The system runs under on-grid mode again.

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Datasheet

Hybrid Inverter	Powervortex 5200
PV Input	
Max. input power [W]	5200
Max. DC voltage [V]	580
MPPT voltage range [V]	125-550
MPP tracker	2
Max. input current [A]	15
Battery Charging / Discharging	
Rated power [W]	3000 (charging) / 3840 (discharging)
Operation voltage range [V]	40-60
Max. charging current [A]	50
Max. discharging current [A]	80
Charging / Discharging Efficiency	93% / 93%
AC Output	
Output power [W]	5000
Output voltage range (On - grid) [V]	180-264
Output voltage range (Off - grid) [V]	230Vac±2%, 50Hz±2%
AC norminal current [A]	23.8
Power outages	Auto-switching to backup power after approx.5 sec.
Other Paraments	
IP protection class	IP20 (indoor)
Noise [dB]	<45
Dimension (W * H * D) [mm]	610 * 500 * 200
Weight [kg]	30
DC switch	Optional
Cooling	Forced air cooling
Battery Packs	**7.2kWh Lithium-ion Battery (Lead-acid optional)**
Battery capacity	2.4kWh battery module, standard 7.2kWh with 3 modules (capacity extendable)
Module Usable Capacity	2.0 kWh
Module Weight	25
Cabinet Dismension (W * H * D) [mm]	2* (600 * 570 * 312)
System	
Certification	AS / NZS4777(AUS) / IEC62109
Interface	Energy management unit integrated/LCD display/ RS485 communication
Warranty	5-year standard, 7-year extendable
Operating temperature range	0 °C to +45 °C

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Why GMDE?

All-in-one Solution

- Fully certified with AS4777 (AUS), IEC62109 and approved by Clean Energy Council;
- Compatible with lithium-ion and lead battery packs as long as battery voltage range matches;
- Charging or discharging lifetime of battery packs could be up to 4000 times, up to 7 years' system warranty (warraty extendable);
- Integrated EMS (Energy Management System) and backup function, easy to install;
- Online web portal and smart phone apps available for online system status monitoring.

Feedback

Leading 3-ph energy storage inverter supplier in German market

Feedback from market:

a. Known as a company with innovative team and high quality products, GMDE is one of the 3 companies awarded with the "TÜV Rheinland Star Prize of PV Energy Storage Inverter" at the "Quality China 2015" PV Ceremony

b. A German client that has used both A and GMDE inverters, said that after replacing battery inverter from A with GMDE's GEatom 306KTL, system efficiency raises from 58% to over 80%

c. Clients who has used inverter from another leading European inverter company B and GMDE Powervortex 306KTL hybrid inverters, told GMDE that our inverters have better charging/discharging performance and compatibility

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About GMDE

Introduction

Global Mainstream Dynamic Energy Technology Ltd. (GMDE) mainly focuses on the development, manufacture and sales of high-efficient, cost-effective and differential energy storage inverters and whole systems. We strive to provide highly reliable and efficient green energy solution worldwide, maximizing the value for our customers.

Contact

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