

SPECIFICATION SHEET

TERRA A SERIES ESS WITH INVERTER

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PRODUCT DETAILS

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PRODUCT OVERVIEW

The GeePower Terra A is a modular, grid-connected residential energy storage system designed to help households manage energy more efficiently and reduce electricity costs.

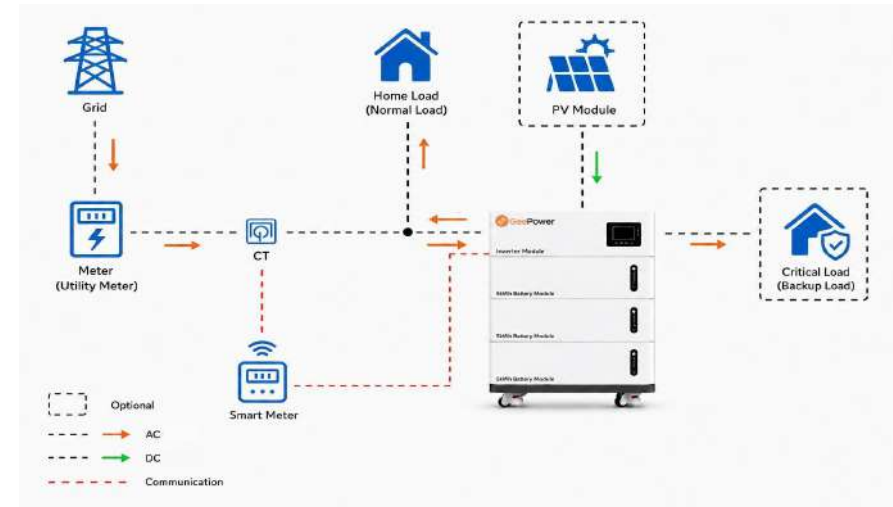
The system integrates high-performance LiFePO₄ battery modules, a hybrid inverter, an intelligent Battery Management System (BMS), and multiple protection functions within a compact, stackable design.

Using smart meter data, Terra A coordinates energy from the battery, optional PV array and utility grid according to household electricity demand. Available PV and battery power can be used to supply household loads, while the grid provides additional power when required.

Terra A supports configurable charging and discharging schedules for time-of-use electricity tariffs, allowing the battery to charge during lower-cost periods and supply energy during higher-tariff periods. The system also supports remote monitoring, optional PV integration, expandable battery capacity and

WORKING DIAGRAM

The diagram below illustrates a typical grid-connected Terra A system configuration.



PRODUCT FEATURES

Smart Grid-Connected Energy Management

Uses smart meter data to coordinate battery, optional PV and grid power according to real-time household electricity demand.

Modular and Expandable Capacity

The stackable battery design allows system capacity to be configured and expanded according to household energy requirements.

Optional Solar Integration with Dual MPPT

Two independent MPPT inputs support efficient energy generation from optional PV arrays with different orientations or operating conditions.

Backup Power for Critical Loads

The AC OUT (UPS) output can supply designated critical loads during a grid outage, subject to available battery energy and inverter output capacity.

Optimised for Time-of-Use Tariffs

Schedule battery charging during lower-cost periods and use stored energy when grid electricity prices are higher.

Reliable LiFePO₄ Battery Technology

Thermally stable, low-maintenance LiFePO₄ reliable performance for up to 15 years

Multi-Layer System Protection

Combines intelligent BMS monitoring, inverter protection functions and independent module-level fire suppression for enhanced system safety.

Remote Monitoring and Smart Scheduling

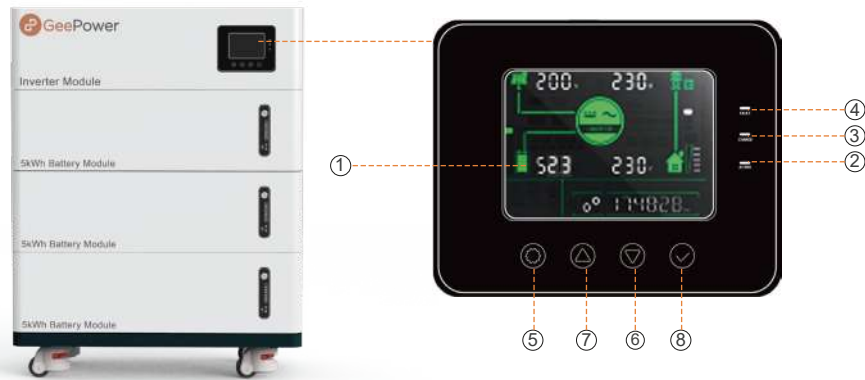
Monitor system status, battery SOC and energy flow remotely, while configurable schedules support convenient daily energy management.



USER INTERFACE

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Inverter Front Panel

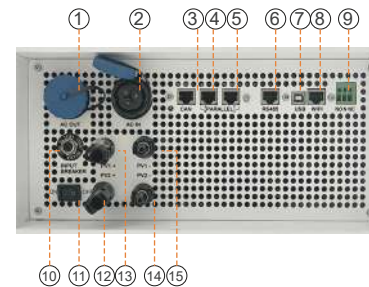


NO.	Name	Instruction
①	LCD Display	Displays system operating status and real-time data
②	Status Indicator	Solid on: Mains Power Output Flashing: Inverter Output
③	Charging Indicator	Solid on: Battery fully charged Flashing: Battery charging
④	Fault Indicator	Solid on: Inverter fault Flashing: Inverter warning
⑤	ESC (Back)	Exit or return to previous menu
⑥	DOWN	Scroll down / next option
⑦	UP	Scroll up / previous option
⑧	Enter / Confirm	Confirm selection or enter setup menu

CONNECTIONS & INDICATORS

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Side Panel Interfaces



Battery LED Indicators



No.	Interface
①	AC Output (AC OUT)
②	AC Input (AC IN)
③	CAN Communication Port
④	Parallel Communication Port A
⑤	Parallel Communication Port B
⑥	RS485 Communication Port
⑦	USB Communication Port
⑧	WiFi Communication Port
⑨	Dry contact port
⑩	Input Circuit Breaker
⑪	Main ON/OFF Switch
⑫	PV2+
⑬	PV1+
⑭	PV2-
⑮	PV1-

No.	Indicator Status
①	83%-100% Capacity
②	66%-83% Capacity
③	50%-66% Capacity
④	33%-50% Capacity
⑤	16%-33% Capacity
⑥	0% -16% Capacity
⑦	Warning Indicator
⑧	Power ON/OFF Indicator
⑨	System Running Indicator

TECHNICAL SPECIFICATIONS

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Lithium-ion Battery Energy Storage System (Terra A Series) Model: GPTE-A-51.2

AC OUTPUT

Rated Output Power	6200W
Peak Power	12400VA
Rated Output Voltage	230Vac
Rated Output Frequency	50/60Hz
Nominal AC Current	27A
Max.AC Current	40A
Output Waveform	Pure Sine Wave
Switch Time	10ms

AC INPUT

Rated Grid Voltage	230VAC(170-280Vac)
Rated Grid Frequency	50/60Hz
Bypass Overload Current	40A

PV INPUT

Num.of MPPT	2
Max. PV Input Power	4500W+4500W
Max. PV Input Current	18A+18A
Max. PV Input Voltage	550Vdc+550Vdc
Max. Voltage Range	120-480Vdc

BATTERY

Rated Capacity	5120Wh (100Ah)	10240Wh (200Ah)	15360Wh (300Ah)	20480Wh (400Ah)	25600Wh (500Ah)	30720Wh (600Ah)
Qty. of Battery Modules	1	2	3	4	5	6
Nominal Voltage	51.2V					
Discharge Voltage Range	44V-56.4V					
Standard Charging Current	50A					
Max.Charge/Discharge Current	100A					
Battery Type	LiFePO ₄					

GENERAL DATA

System Compatibility	Stackable Residential ESS					
Protective Class	Class I					
IP Rating	IP20(Indoor Use Only)					
Operating Temperature Range	-10℃-55℃					
Communication Interface	RS485					
Dimensions(L*W*H)mm	650*395*472H	650*395*652H	650*395*832H	650*395*1012H	650*395*1192H	650*395*1372H
Weigh(kg)	81	127.5	174	220.5	267	313.5

COMPLIANCE

Inverter Module	EN IEC 62109-1; EN IEC 62109-2
Battery Module	IEC 62619; UN38.3; MSDS
System	EN IEC 62477-1; EN IEC 61000-6-1; EN IEC 61000-6-3; G99 (UK Grid Code); UKCA; EU RoHS

PACKING DETAILS

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PRODUCT DIMENSION



ACCESSORIES



Inverter Module
(Net Weight: 19.4kg)



Battery Module *1
(Net Weight: 46.5kg)



MC4 Plug *4



Installation Kit
(Net Weight: 15.1kg)



WiFi Module



AC aviation plug