Catálogo

BESS

GENESIS®
Tecnologia

Março, 2026

www.energia-genesis.com

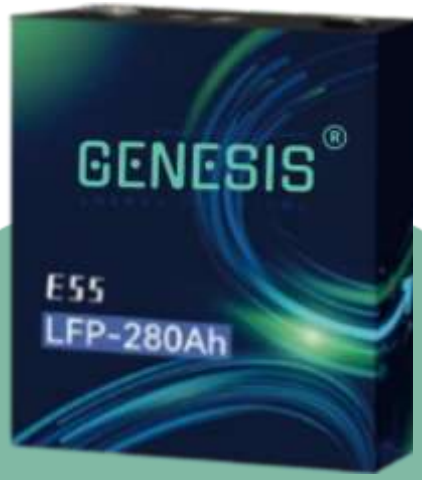
Ciclo de Vida Completo

LITHIUM-ION BATTERY CELL

- Longa vida útil
- Alta eficiência
- Alta densidade e Consistência
- Baixo LCOS
- Alta taxa de carga e Descarga
- Excelente desempenho em baixas temperaturas

Lithium-Ion Battery Cell

GEN - ESS
LFP - 102Ah
1C
5.000 Ciclos



GEN - ESS LFP
- 280Ah 0.5P
8.000 Ciclos

GEN - ESS LFP
- 314Ah 0.5
12.000 /
15.000 Ciclos

GEN - ESS LFP
- 684Ah 0.5
12.000 Ciclos

Sistema Modularizado de Armazenamento de Energia

GEN – PACK
1P48S, 1P52S,
1P104S

GEN-PACK
1P20S

GENX-6MWh+

GENX-5.015MWh

344 kWh
280Ah

261 kWh
314Ah

855 kWh
600Ah

Sistema Armazenamento de Energia em Container Outdoor

5MWh Container ESS

Application Scenarios

Peak shaving	Micro-grid	Emergency power
Solar PV-Carport	Transformer Expansion	Green power consumption

Excellent Life Cycle Cost

- Cells with more than 12,000 cycles
- PID-based intelligent liquid cooling technology, maintaining a temperature difference of 1.5°C with in the pack and less than 3°C within the rack, increasing the cycle life

High Safety

- With a standard preventive ventilation design, meeting the NFPA68 standard
- With an optional explosion venting design, meeting the NFPA69 standard
- With a standard three-level (pack+system+water) fire protection system
- Insulation protection design on six sides of the cell

Easy Maintenance

- Optional two-way shut-off valve and no drain required when replacing modules, increasing replacement efficiency by 30%
- Pre-maintenance design of pack parts for quick replacement, increasing after-sales efficiency by 80%

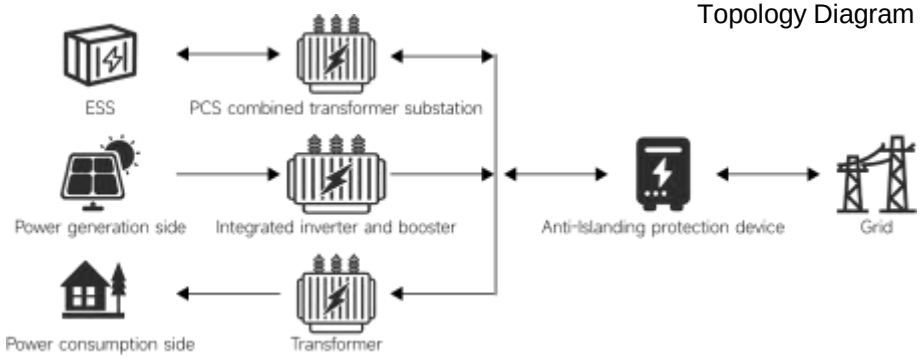
High Availability

- All-around wide temperature range design, adapting to -40°C~60°C conditions
- Optional C5-level corrosion resistance, suitable for complex environments
- Factory integrated debugging, ready for installation on site

Sistema Armazenamento de Energia em Container Outdoor

5MWh Container ESS

Topology Diagram



Cell Type	LFP 3.2V/314Ah
Configuration	1P416S*12
Rated Energy	5016kWh@0.5C
System Voltage	1500VDC
Rated Voltage	1331.2V
Charge & Discharge Voltage Range	1164.8V~1497.6V
Max. Discharge Current	157A*12
Max. Charge Current	193A*12@5min
Charge & Discharge Temperature	-30℃~50℃
Degree of Protection	IP55
Weight	42t
Container Dimension	20HC (L6058*W2438*H2896mm)
Cooling Method	Liquid Cooling
Protective Class	Class B
Operation Altitude	≤4000m (> 2000m Derating)
Communication Port	CAN、RS485、RJ45/Optical、FTTP

Sistema Armazenamento de Energia Distribuída Outdoor

DC Liquid Cooling Cabinet

Application Scenarios		
Peak shaving	Micro-grid	Emergency power
Solar PV-Carport	Transformer Expansion	Green power consumption

Excellent Life Cycle Cost

- Cells with more than 12,000 cycles
- PID-based intelligent liquid cooling technology, maintaining a temperature difference of 1.5°C with in the pack and less than 3°C within the rack, increasing the cycle life

Easy Maintenance

- Optional two-way shut-off valve and no drain required when replacing modules, increasing replacement efficiency by 30%
- Pre-maintenance design of pack parts for quick replacement, increasing after-sales efficiency by 80%
- Modular design for easy maintenance

High Safety

- With an optional explosion venting design, meeting the NFPA69 standard
- With a standard system+pack fire extinguishing system
- Insulation protection design on six sides of the cell
- Class B functional safety

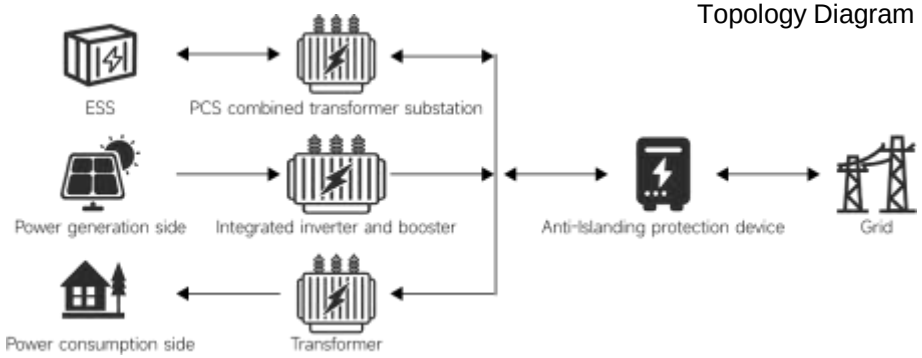
High Availability

- All-around wide temperature range design, adapting to -40°C~60°C conditions
- Support black start and backup power for critical loads
- Optional C5-level corrosion resistance, suitable for complex environments
- Factory integrated debugging, ready for installation on site

Sistema Armazenamento de Energia Distribuída Outdoor

DC Liquid Cooling Cabinet

Topology Diagram



Model	372kWh	418kWh
Cell Type	LFP 3.2V/280Ah	LFP 3.2V/314Ah
Configuration	1P416S	1P416S
Rated Charge & Discharge Current	140A	157A
Maximum Charge & Discharge Current	1.2C@1min	
System Voltage	1331.2V	
Charge & Discharge Voltage Range	1164.8V~1497.6V	
Storage Temperature	-30℃~50℃	
Max. System Efficiency	≥90% (Rated Operation Condition)	
Degree of Protection	IP55(Battery Pack IP65)	
Cabinet Weight	3800kg	4000kg
Dimension	W1420*D1325*H2370	
Operation Altitude	≤4000m (> 2000m Derating)	
Fire Protection System	Pack Grade+System Grade	
Cooling Method	Class B	
Grid Connected/ Off Grid	Support Multi-parallel	
Communication Port	FTTP、LAN、RS485、CAN	

Gabinete Armazenamento de Energia – Refrigeração Líquida

AC-DC Liquid Cooling Cabinet

Application Scenarios

Peak shaving	Micro-grid	Emergency power
Solar PV-Carport	Transformer Expansion	Green power consumption

Excellent Life Cycle Cost

- Cells with more than 12,000 cycles
- PID-based intelligent liquid cooling technology, maintaining a temperature difference of 1.5℃ with in the pack and less than 3℃ within the rack, increasing the cycle life

Easy Maintenance

- Optional two-way shut-off valve and no drain required when replacing modules, increasing replacement efficiency by 30%
- Pre-maintenance design of pack parts for quick replacement, increasing after-sales efficiency by 80%
- Modular design for easy maintenance

High Safety and Reliability

- Three-level fire protection linkage of pack+system+water (optional)
- Support individual management for each cluster, reducing short-circuit current by 90%
- Insulation protection design on six sides of the cell

High Availability

- Support grid-connected and off-grid switching
- Support black start and backup power for critical loads
- Mobile APP and intelligent centralized control platform
- Support third-party SCADA integration and cloud scheduling
- Optional C5-level corrosion resistance, suitable for complex environments

Gabinete Armazenamento de Energia – Refrigeração Líquida

AC-DC Liquid Cooling Cabinet

Topology Diagram

Model		100kW/215kWh ALL-in-one Cabinet	100kW/232kWh ALL-in-one Cabinet	120kW/240kWh ALL-in-one Cabinet	125kW/260kWh ALL-in-one Cabinet
DC Parameter	Cell Type	LFP 3.2V/280Ah		LFP 3.2V/314Ah	
	Configuration	1P240S	1P260S	1P240S	1P260S
	Rated Energy	215kWh	232kWh	240kWh	260kWh
AC Parameter	Rated Power	100kW		120kW	125kW
	Voltage Range	AC380V±10%			
	Frequency	50/60Hz			
	Connection Mode	three-phase four-wire			
Cabinet Parameter	Storage Temperature	-30℃~50℃			
	Max. System Efficiency	≥90% (Rated Operation Condition)			
	Degree of Protection	IP55(Battery Pack IP65)			
	Cabinet Weight	2750kg	2900kg	2850kg	3000kg
	Dimension	W1420*D1325*H2300			
	Operation Altitude	≤4000m (> 2000m Derating)			
	Fire Protection System	Pack Grade+System Grade			
	Cooling Method	Liquid Cooling			
	Grid Connected/ Off Grid	Support Multi-parallel			
	Communication Port	FTTP、LAN、RS485、CAN			

Gabinete Armazenamento de Energia – Refrigeração Ar

Air Cooled Energy Storage Cabinet

Application Scenarios

Peak shaving	Micro-grid	Emergency power
Solar PV-Carport	Transformer Expansion	Green power consumption

Flexible

- Suitable for various scenarios including residential, commercial, and industrial applications
- Modular design allows for easy upgrades and expansion based on demand
- Quick deployment, reducing construction costs
- Configurable PV system

Smart Management

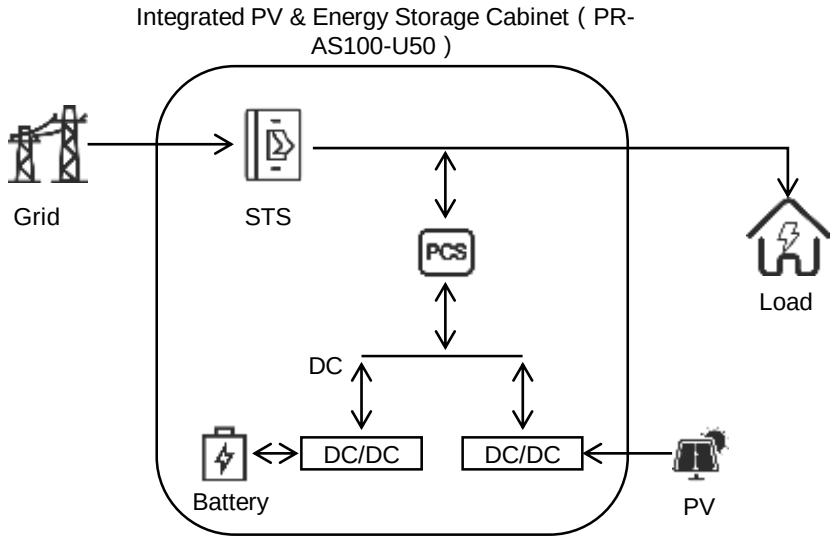
- Built-in EMS with a cloud-based intelligent management platform
- 24/7 monitoring
- Dynamic data preservation with intelligent data mirroring
- Edge computing enhances system response speed

High Safety

- Intelligent fan speed control reduces temperature rise and extends lifespan
- High-quality batteries and IGBT components ensure system performance
- Compliance with international safety standards to ensure user safety
- Fast grid-off-grid switching without affecting critical loads

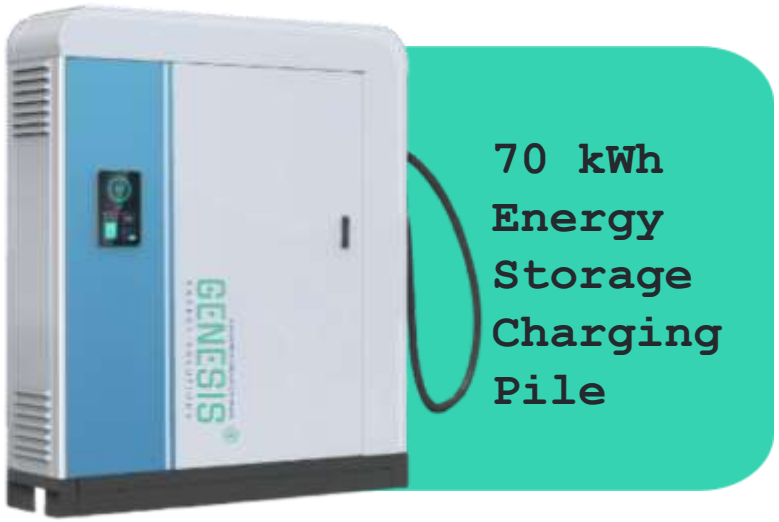
Gabinete Armazenamento de Energia – Refrigeração Ar

Topology Diagram



Model	PR-AS50-U25	PR-AS100-U50
Cell Type	LFP-314Ah	
Energy	50.24kWh	100.48kWh
Rated Power	25kW	50kW
Rated Voltage	480Vac	
Frequency	50/60Hz	
Overload	1.1C for long-term operation, 1.2C@1min	
Grid-switching time	≤20ms	
Degree of Protection	IP54	
Dimension	W1300mm*D1120mm*H2300mm	
Weight	2000kg	
Cooling Method	Smart Air Cooling	
Communication Port	Modbus TCP、Modbus RTU、CAN2.0	

70 kWh Estações de Armazenamento e Regarda



70 kWh Energy Storage Charging Pile

Application Scenarios

EV charging	Emergency power

Energy storage cabinet parameters

Battery Type	**Lithium Iron Phosphate (LFP)**
Rated Voltage	716.8V (25°C ± 2°C)
Rated Capacity	100Ah
Rated Energy	71.68kWh
Standard Charging Current	50A (0.5C)
Maximum Continuous Charging Current	50A (0.5C)
Standard Discharging Current	50A (0.5C)
Maximum Continuous Discharging Current	50A (0.5C)
Battery Self - discharge Rate	≤ 3%/month (25 ± 2°C, 27% SOC)
State of Charge at Factory	30% - 40%
Withstand Voltage Rating	3500V DC
Insulation Resistance	> 200MΩ
Operating Temperature	0°C - 55°C (Charging); - 20°C - 55°C (Discharging)

Exchange grid connection parameters

Rated Output Power	**62.5kW**
Rated Voltage	380V
Rated Output Current	95A
AC Connection Mode	Three - phase Four - wire
Isolation Mode	None
Grid Voltage Range	400V (-20% ~ +15%)
Grid Frequency	50Hz/60Hz ± 2.5Hz
Overload Capacity	100% - 110% long - term; 110% - 120% for 1min
Power Factor	-0.98 ~ +0.98
Total Harmonic Distortion of Current	≤ 3% (full load)
Charge - Discharge Switching Time	100ms

70 kWh Estações de Armazenamento e Regarda

70 kWh Energy Storage Charging Pile

DC side parameters

DC - side Voltage	**650 - 1000V**
Maximum Charge - Discharge Current	110A
Voltage Regulation Accuracy	≤ ± 2%
Current Regulation Accuracy	≤ ± 5%
AC Voltage	380V
Voltage Limiting Characteristic	Available
Current Limiting Characteristic	Available

Charging gun parameters

Output Voltage Range (V)	**DC150 - 1000 (adapted to the device being charged)**
Maximum Charging Power (kW)	60
Cooling Method	Air - cooling
Background Communication	4G
Billing System	Supported
Charging Protocol	National Standard (GBT27930 - 2015)

Solução Integrada Energia Solar e Sistema de Armazenagem

ESS & PV Integrated Charging Station

High Safety

- High-stability lithium iron phosphate cell
- Three-level fire protection linkage of pack+system+water (optional)
- Individual management for each cluster, eliminating circulation current

High Profitability

- Bifacial double-glass PV modules, utilizing reflected light on the back to generate an additional 15% of electricity
- High-density integration, with a single energy cabinet occupying only 1.3 square meter of space
- ESS & PV integration, expanding power distribution capacity for charging stations
- ToU pricing used to shave peak load, reducing electricity costs

Long Lifespan

- PV modules with annual linear loss as low as 0.35%, and a lifespan of up to 30 years
- Designed lifespan of 15 years for the cabinet
- Liquid-cooling uniform temperature management in the cabinet, maintaining a battery temperature difference of ≤ 2°C

Easy Configuration

- Highly integrated design for easy expansion and installation
- Modular design for convenient maintenance and upgrades
- Support third-party SCADA integration and EMS cloud scheduling

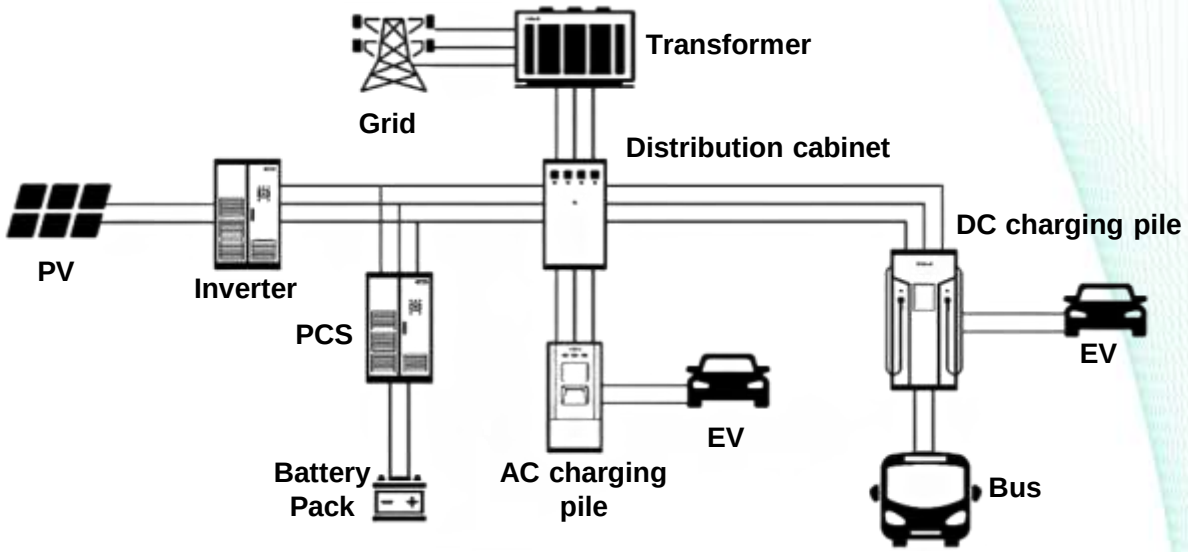
High Reliability

- IP65 waterproof and moisture-resistant, high environmental weather resistance
- Components such as cells, PCS, EMS and PV of mainstream brands, with complete certifications
- Capable of operating in off-grid mode during power outages, and providing emergency charging for new energy vehicles

Solução Integrada Energia Solar e Sistema de Armazenagem

ESS & PV Integrated Charging Station

The integrated solution of PV, energy storage and charging carport can realize the self-generation and self-consumption of the PV carport. It can solve the problems of insufficient power distribution capacity of charging stations and insufficient charging parking spaces during peak hours. What's more, it can provide clean energy for the parking lot, reduce the dependence on traditional coal-fired power generation.



Topology Diagram

Armazenamento e Robô de Carregamento Inteligente

60 kWh /60 kW – Robô de Carregamento Inteligente

Application Scenarios

EV charging	Emergency power

High Safety

- High-stability lithium iron phosphate cell
- Active thermal runaway warning and isolation mechanism
- S-type aerosol fire extinguishing

Stability & Reliability

- Liquid cooling technology for all-weather performance
- IP65 waterproof and moisture-resistant

Long Lifespan

- Cells with up to 12,000 cycles
- Liquid-cooling uniform temperature management, maintaining a battery temperature difference of ≤ 2°C
- Designed system lifespan of 15 years

Ultimate Intelligence

- Wireless charging and smart management
- User self-service ordering via APP, and cloud-based operation by the manufacturer
- Automatic driving and returning, with no manual handling required
- Support 800V EV battery platforms

Armazenamento e Robô de Carregamento Inteligente

60 kWh /60 kW – Robô de Carregamento Inteligente

DC Parameter	Battery Nominal Voltage	665.6V
	Battery Voltage Range	582.4~738.4V
	Rated Energy	60kWh
	Charging Output Voltage Range	250~950V
AC Parameter	Voltage Range	AC380V±10%，50/60Hz
	Connection Mode	Three-phase five-wire
	Rated Input Power	60kW
	Rated Output Power	60kW
Overall Parameter	Storage Temperature	-20℃~50℃
	Degree of Protection	IP65
	Weight	720kg
	Dimension	W785*D660*H1300mm
	Operation Altitude	≤4000m，(＞2000m Derating)
	Cooling Method	Support Liquid Cooling/Hydrothermal
	Driving Mode	Automatic Driving
	Communication Port	4G

Armazenamento Baixa Tensão – Fixação em Parede Outdoor

Wall-mounted Energy Storage Battery

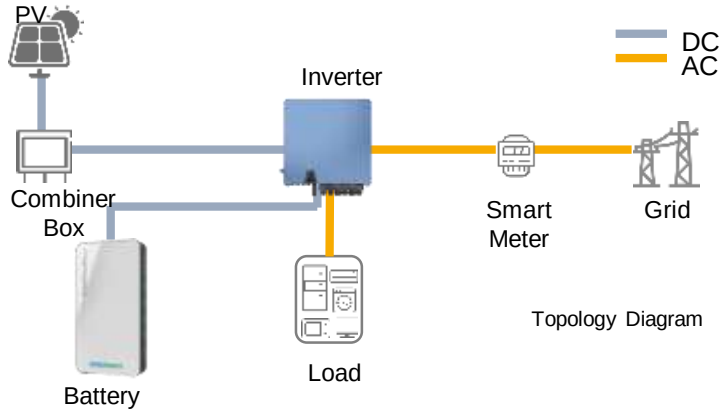
Application Scenarios

Household Daily Power Supply	Rural Microgrid Power Supply	Commercial Power Supply
EV charging	PV Base Power Station	

Features:

- Long-life battery with 6,000 cycles and a 10-year warranty
- Compatible with both floor-standing and wall-mounted installation forms
- Support optional horizontal/vertical parallel arrangement
- IP65 rated protection, supporting both indoor and outdoor applications
- Flexible energy expansion with up to 15 units connected in parallel
- Compatible with over 20 mainstream inverter brands in the market
- Optional touchscreen display, supporting battery settings for self-diagnosis of multiple faults
- Appliance-style exterior design with art-grade surface treatment

Armazenamento Baixa Tensão – Fixação em Parede Outdoor



Topology Diagram

Battery Parameters	Product Type	PW-LM05	PW-LM07
	Cell Type	LiFePO4	
	Nominal Voltage	51.2V	
	Nominal Energy	5.12kWh	7.52kWh
	Usable Energy	4.86kWh	7.15kWh
	Voltage Range	43.2~56.8V	
	Max. Charge/Discharge Current	50A/100A	75A/150A
Operation Conditions	Operation Temperature	0℃~50℃	
	Storage Temperature	-20℃~50℃	
	Degree of Protection	IP31, Indoor	IP65, Indoor & Outdoor
	Weight	49.5kg	64.5kg
	Dimension	W460*D165*H745mm	W500*D145*H860mm
	Operation Altitude	≤4000m (> 2000m Derating)	
	Communication Port	RS485，CAN	
	Parallel Expansion	15台	
	Certification	CB，CE，UN38.3	

Armazenamento Baixa Tensão – Fixação em Parede Indoor

Wall-mounted Energy Storage Battery

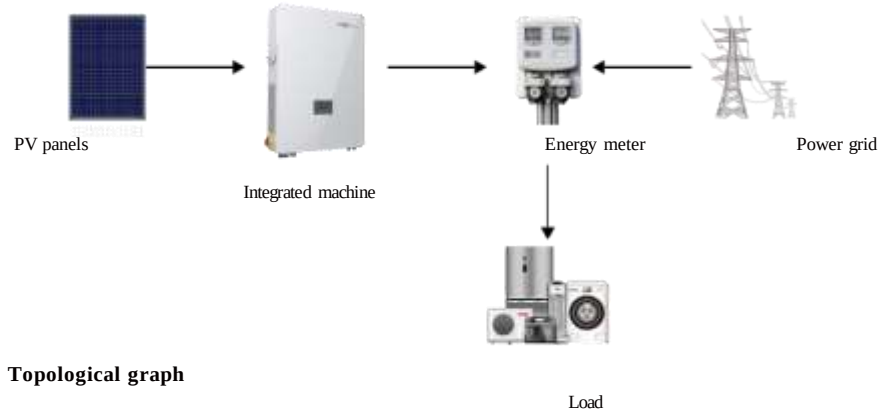
Application Scenarios

Household Daily Power Supply	Rural Microgrid Power Supply	Commercial Power Supply
EV charging	PV Base Power Station	

Features:

- The product is plug-and-play, saving time, effort and installation costs
- Support hybrid energy access combining PV and power sources
- Support wall mounting
- Supports Wi-Fi and real-time data viewing via the APP
- Higher system safety with an integrated circuit breaker
- The two batteries can be connected in parallel, expanding the battery capacity to 15.36kWh
- The large LCD screen displays real-time data

Armazenamento Baixa Tensão – Fixação em Parede Indoor



Topological graph

Model	PW-A05-G05A	
Inverter output	Rated output	5500W
	Max. power output	6050VA
	Rated output voltage	208/220/230/240Vac
	Frequency	50/60Hz
	Efficiency (battery mode)	94%@ 48VDc
	Waveform	Sinusoidal wave
Battery	Battery type	Lithium iron phosphate
	Energy capacity of battery	5.12kWh
	Battery capacity	100Ah
	Rated voltage of battery	51.2V
	Operating voltage range of battery	44.8~57.6V
	Standard charge current	50A (integrated machine)
	Max. charge current	100A (integrated machine + battery extender)
	Service life	6000 (80% DoD, 0.25C, 25°C)
PV charge	Max. power output	5500W
	Max. input current	18A
	Max. MPPT charge current	50A
	Max. PV open circuit voltage	500V
	MPPT voltage range	120-430Vdc
Charging	Max. AC charging power	4950W
	Max. AC charging current	80A
	Rated input voltage	220/230Vac
	Input voltage range	90~280Vac
Basic parameters	Level of protection	IP20, indoor only
	Size	750*500*150mm
	Weight	60kg
Certifications	Safety	MSDS, UN38.3, IEC61000-6:2019
	RoHS	Yes

Bateria Integrada de Armazenamento GEN-X1

GEN-X1

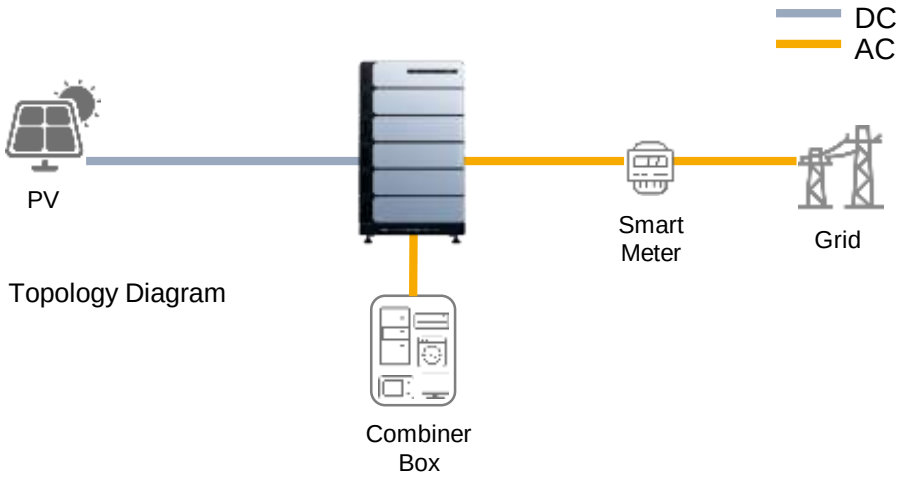
Application Scenarios

Household Daily Power Supply	Rural Microgrid Power Supply	Commercial Power Supply
EV charging	PV Base Power Station	

Features:

- Integrated management of household light storage and charging
- Can be clustered and expanded/supports cloud monitoring and OTA upgrades
- BMS high-precision SOC and balancing algorithm based on cloud big data
- Modular and flexible configuration
- Easy stacking and friendly installation

Bateria Integrada de Armazenamento GEN-X1



Topology Diagram

Battery Parameters	Product Type	PS-HM
	Cell Type	LiFePO4
	Nominal Voltage	76.8V*Module number
	Nominal Energy	Single Module 4.61kWh
	Usable Energy	Single Module 4.38kWh
	Voltage Range	129.6V~170.4V (2 Modules) 194.4V~255.6V (3 Modules) 259.2V~340.8V (4 Modules) 324.0V~426.0V (5 Modules)
	Max. Charge/Discharge Current	30A/50A
Operation Conditions	Operation Temperature	0℃~50℃
	Storage Temperature	-20℃~50℃
	Degree of Protection	IP65 , Indoor & Outdoor
	Weight	Control Box : 19kg Battery Box : 40kg Plinth : 9kg
	Dimension	Control Box : 632*357.5*150mm Battery Box : 632*357.5*160mm Plinth : 632*357.5*80mm
	Operation Altitude	≤4000m , (> 2000m Derating)
	Communication Port	RS485 , CAN , WiFi
	External Battery Expansion	Max. 5 Modules Stackable Each Cluster; Max. 6 Clusters in Parallel
	Certification	CB , CE , UN38.3

Bateria de Armazenamento em Alta Tensão

Bateria De Alta Tensão

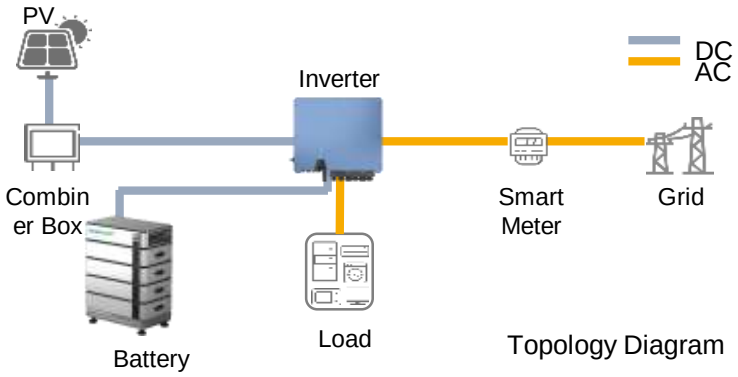
Application Scenarios

Household Daily Power Supply	Rural Microgrid Power Supply	Commercial Power Supply
EV charging	PV Base Power Station	

Features:

- Long-life battery with 6,000 cycles and a 10-year warranty
- Stack up to five battery modules; easy installation
- IP65 rated protection, supporting both indoor and outdoor applications
- Flexible energy expansion with up to 6 clusters connected in parallel
- Compatible with over 10 mainstream inverter brands in the market
- Color LCD display
- Support OTA updates and APP user interaction
- BMS with high-precision SOC and balancing algorithms based on cloud big data
- Appliance-style exterior design with art-grade surface treatment

Bateria de Armazenamento em Alta Tensão



Topology Diagram

Battery Parameters	Product Type	PS-HM
	Cell Type	LiFePO4
	Nominal Voltage	76.8V*Module number
	Nominal Energy	Single Module 4.61kWh
	Usable Energy	Single Module 4.38kWh
	Voltage Range	129.6V~170.4V (2 Modules) 194.4V~255.6V (3 Modules) 259.2V~340.8V (4 Modules) 324.0V~426.0V (5 Modules)
	Max. Charge/Discharge Current	30A/50A
Operation Conditions	Operation Temperature	0℃~50℃
	Storage Temperature	-20℃~50℃
	Degree of Protection	IP65 , Indoor & Outdoor
	Weight	Control Box : 19kg Battery Box : 40kg Plinth : 9kg
	Dimension	Control Box : 632*357.5*150mm Battery Box : 632*357.5*160mm Plinth : 632*357.5*80mm
	Operation Altitude	≤4000m , (> 2000m Derating)
	Communication Port	RS485 , CAN , WiFi
	External Battery Expansion	Max. 5 Modules Stackable Each Cluster; Max. 6 Clusters in Parallel
	Certification	CB , CE , UN38.3

Bateria de Armazenamento em Baixa Tensão

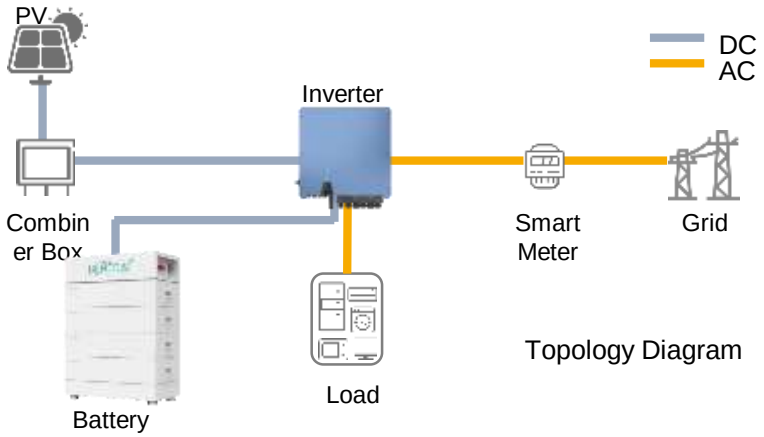
Bateria De Baixa Tensão

Features:

- Long-life battery with 6,000 cycles and a 10-year warranty
- Stack up to six battery modules; flexible expansion and easy installation
- IP65 rated protection, supporting both indoor and outdoor applications
- Compatible with over 20 mainstream inverter brands in the market
- Appliance-style exterior design with art-grade surface treatment
- Optional touchscreen display, supporting battery settings for self-diagnosis of multiple faults

Application Scenarios		
Household Daily Power Supply	Rural Microgrid Power Supply	Commercial Power Supply
EV charging	PV Base Power Station	

Bateria de Armazenamento em Baixa Tensão



Topology Diagram

Battery Parameters	Product Type	PS-LM05
	Cell Type	LiFePO4
	Nominal Voltage	51.2V
	Nominal Energy	Single Module 5.12kWh
	Usable Energy	Single Module 4.86kWh
	Voltage Range	43.2~56.8V
	Max. Charge/Discharge Current	50A/100A
Operation Conditions	Operation Temperature	0℃~50℃
	Storage Temperature	-20℃~50℃
	Degree of Protection	IP65 , Indoor & Outdoor
	Weight	Control Box : 16.0kg Battery Box : 48.4kg Plinth : 13.8kg
	Dimension	Control Box : 700*370*163.5mm Battery Box : 700*370*173.5mm Plinth : 700*370*101.5mm
	Operation Altitude	≤4000m , (> 2000m Derating)
	Communication Port	RS485 , CAN
	External Battery Expansion	1~6 Modules Stackable
	Certification	CB , CE , UN38.3

Integração Turnkey de Armazenamento de Energia

Dimensionamento e Projeto do Sistema

- Simulação de sobrecorrente
- Compatibilidade e dimensionamento de equipamentos
- Estratégia de retenção/aumento de EOL
- Dimensionamento de cabos, especificação, requisitos de penetração
- Estratégia de operação e análise de caso de uso
- Cálculo de throughput
- Parâmetros do PCS
- Correspondência da tensão CC do PCS
- Requisitos do local – elevação, temperatura ambiente, etc.
- Conformidade regulatória

Equipamentos

- Fabricação do skid AC
- Projeto do invólucro CC
- Comunicações de rede
- Integração EMS com BMS (balanceamento de células, estado de carga, etc.)
- Operação da HMI
- Interconexões de baterias
- Dimensionamento, projeto e comunicação de HVAC
- Transporte e armazenamento
- Recebimento e aceitação de equipamentos
- Cibersegurança

Obras Civis

- Cercamento
- Projeto e desenhos da fundação

Instalação e Comissionamento

- Segurança do local
- Responsabilidades trabalhistas
- Aluguel de equipamentos
- Gestão do projeto

Operação e Manutenção

- Garantia, serviços e peças de reposição

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