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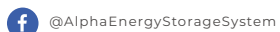
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[@AlphaEnergyStorageSystem](https://www.facebook.com/AlphaEnergyStorageSystem)



[@AlphaESS](https://twitter.com/AlphaESS)



[@alpha\\_ess](https://www.instagram.com/alpha_ess)



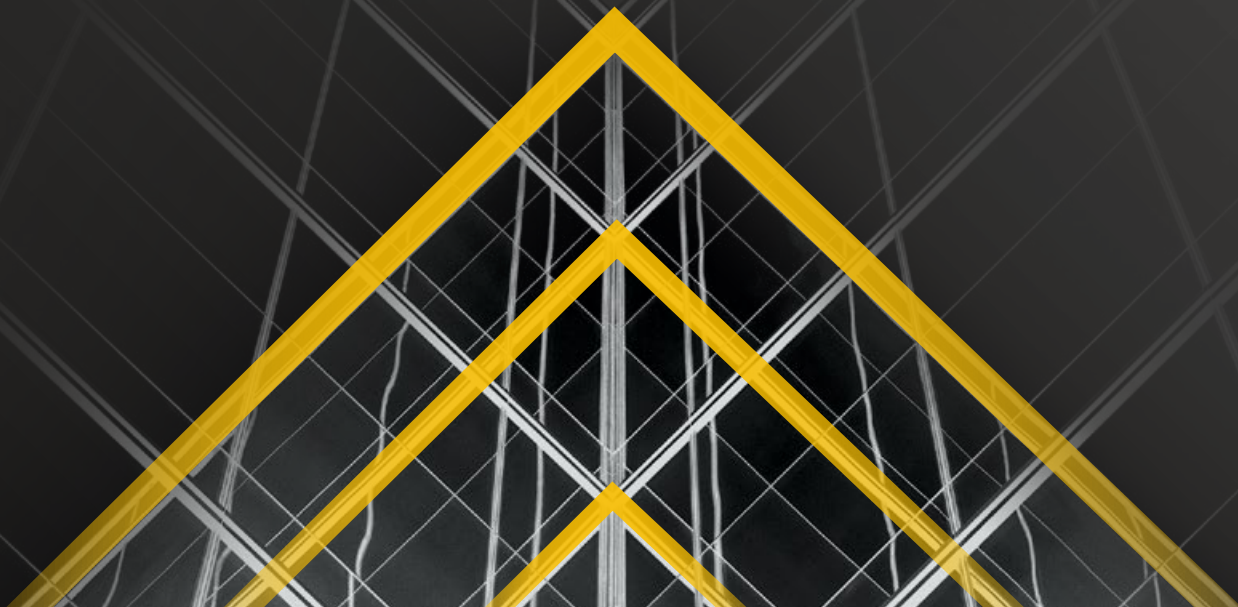
[@AlphaESS](https://www.linkedin.com/company/AlphaESS)



[www.alphaess.com](http://www.alphaess.com)



WE DO MORE THAN  
**STORE** POWER  
WE MAKE IT **SMART**



# OUR VISION

- Become a world-leading green energy storage solution and service provider.
- Make clean energy accessible to 100 million people in 10 years.

**01** OUR STORY

**02** CORE STRATEGY

**03** ALPHA HOME

**04** ALPHA C & I

01

OUR

STORY

“Make clean energy  
accessible to everyone  
in the world.”



# Who We Are

AlphaESS is a leading global green energy storage solution and service provider. With expertise in BMS, EMS, system integration, and cloud monitoring, we excel in providing tailored solutions for a wide range of applications, including residential, commercial & industrial, and utility-scale projects.

AlphaESS has 30+ subsidiaries and branches worldwide, including China, Germany, Australia, Italy, the United Kingdom, South Africa, Singapore, Malaysia, and more. With over 150,000 systems actively running across 100+ countries, we have built a comprehensive global supply chain and logistics network.



**100 +**

Countries & Regions



**150,000 +**

Systems Installed Globally



**12 +**

Years of Industry Experience



**200 +**

Patents in the ESS field



## TOP 1

2022-2023 TOP 1  
Australia Market Share  
*from SunWiz*

## TOP 5

2023 H1 TOP 5  
Residential ESS Provider in Germany  
*from EUPD Research*

## TOP 6

2021 TOP 6 Supplier of  
Global Residential Storage Systems  
*from IHS Markit*



ESG Transparency  
Award



iF & Reddot & G-mark  
Design Award



TOP BRAND PV  
(STORAGE & INVERTERS)



# Our History

2012

Established in Nantong, China

2013

1st Generation BMS, EMS, and AlphaCloud Platform

2014

1st All-in-One Residential ESS



2015

European & Australian Subsidiaries Established

2016

Commercial Energy Storage Project Launched

2017

- Large Air-cooled Energy Storage Container System
- Italian Subsidiaries Established
- 3rd Generation Residential ESS



2018

Myanmar Rural Electrification Project \*

\* Named as a Finalist for the SmarterE Award in 2020



**2019**

Top 1 Residential ESS Provider in Australia  
(by SunWiz Research)

**2020**

Overseas Headquarters  
Established in Singapore

**2021**

- 4th Generation Residential ESS
- Top 5 Residential ESS Provider in Germany (by EUPD Research)

**2022**

5th Generation Residential ESS



**2023**

Overseas Production Center Put into Operation



**2024**

20ft 5MWh Liquid-cooling Energy Storage

# Global Presence



300+

Global Service Network

## Key Networks

- Asia: China, Singapore, Malaysia, The Philippines, Myanmar, Indonesia, Uzbekistan, Japan
- Europe: Germany, United Kingdom, Italy, Belgium, Netherlands, France, Czech Republic, Spain
- Oceania: Australia, New Zealand, Fiji, New Caledonia
- Americas: United States, Guam, Hawaii, Colombia
- Africa: South Africa, Kenya, Nigeria



30+

Subsidiaries

4

Production Centers

China: Nantong (Tongzhou & Qidong), Guangde  
 Malaysia: Kulim



4

R&D Centers

Nantong, Suzhou, Nanjing, Tianjin

-  Headquarters
-  Subsidiary
-  Production Center

\*China: Nantong (Tongzhou & Qidong), Suzhou, Nanjing, Guangde, Beijing, Tianjin, Shenzhen, Guangzhou, etc.

# Localization

Local Service Experience through a Global Network

We strive to provide our customers with seamless end-to-end services through our comprehensive localized service network, which offers convenient services including demand analysis, customized solutions, spare parts supply, professional training, warehouse management, fault analysis, and efficient maintenance. Our dedication lies in maximizing the utilization of our customers' systems and ensuring an exceptional service experience.



Remote  
Maintenance



Troubleshooting



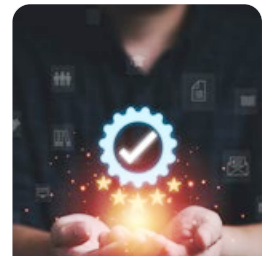
Installation  
Training



Technical  
Support



Automatic  
Updates



Warranty Service

# Core Technologies

AlphaESS masters core technologies including BMS, EMS, system integration and the monitoring platform. Its product lines cover micro, residential, commercial and industrial, and utility-scale energy storage, offering ESS solutions ranging from 1 kilowatt to hundreds of megawatts for the global market.

## 4 Major Technical Areas



Battery Management System (BMS)



Energy Management System (EMS)



Monitoring Platform



System Integration

## 4 Major Product Lines



Utility-scale Energy Storage Systems



Commercial and Industrial Energy Storage Systems



Residential Energy Storage Systems



Micro Energy Storage Systems

# 02

CORE STRATEGY

01

Smart Energy

CORE

02

Safe and Reliable

03

Service Leading





# Smart Energy

Digital Intelligent Management Architecture

## Cloud

• Computer Terminal

• Energy & Carbon Trading Platform

• Integrated Energy

• AI

• Building Automation

• Digital Twin

### Data Support

• Data Analysis

• Data Preprocessing

• Stream Computing

• Big Data Analytics

## EMS

Data Acquisition

## Device



Micro ESS



Residential ESS



C&I ESS



Utility-scale ESS



PV

## User Layer

- Mobile Terminal
- Digital Dashboard

## Cloud Interface

- Dispatch Platform
- Carbon Management Platform

## Cloud Platform

- Carbon Management
- Virtual Power Plant
- Corporate Management

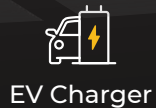
## Service Layer

- Distributed Storage
- Distributed Scheduling
- Micro-Frontend
- Microservices

## IoT Layer

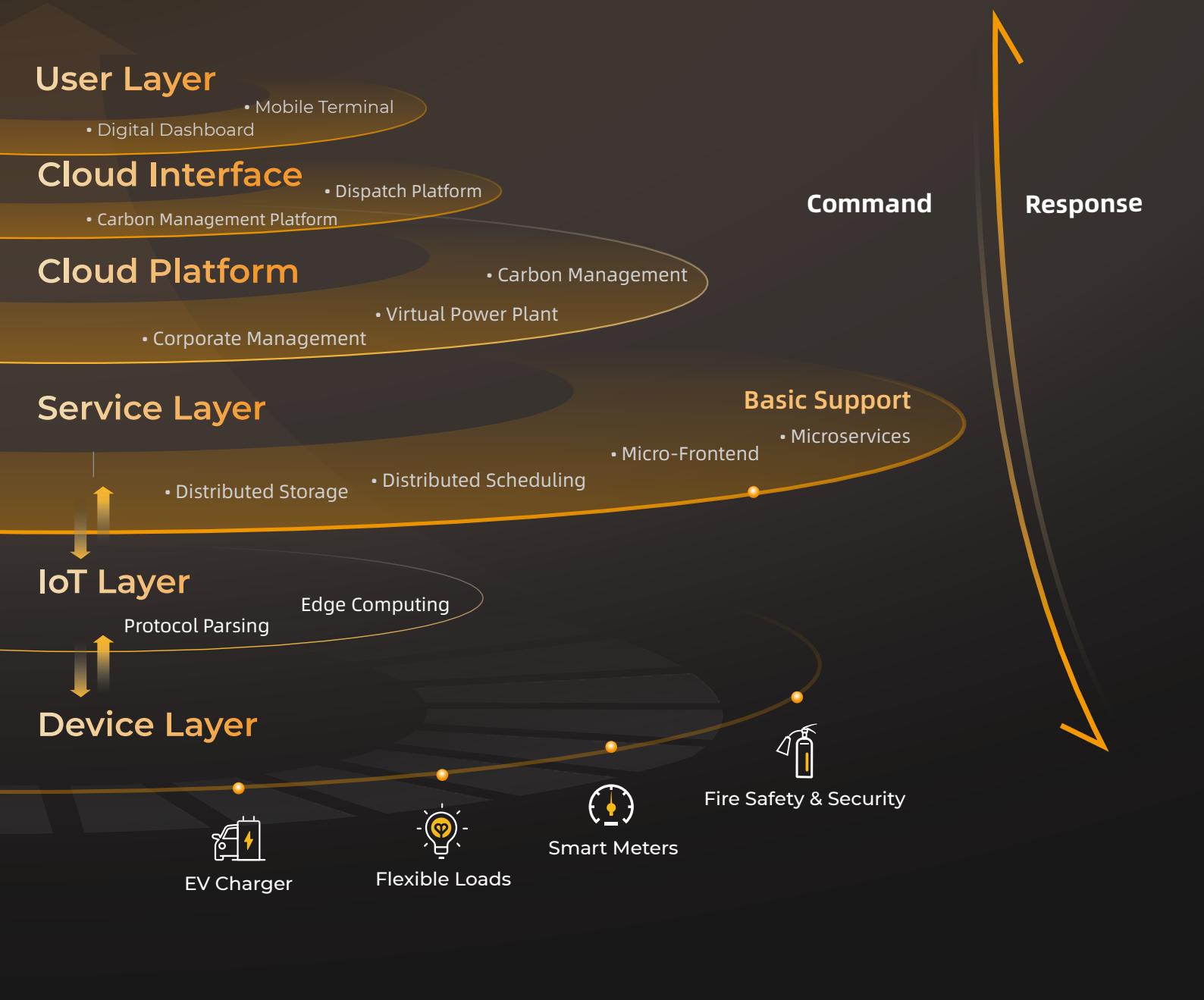
- Protocol Parsing
- Edge Computing

## Device Layer



Command

Response



# Safe and Reliable

## 01 Material Safety

Secure the energy storage

Only first class, reliable  $\text{LiFePO}_4$  cell will be used

## 02 System Safety

Secure the quality and performance



Site Survey & Design



Thermal & Environmental Control



Real-Time Monitoring



Tiered Alarms



Multiple Fire Protection



Product Insurance



## 03 Workplace Safety

Secure the green, smart, and sustainable future

- Integrate safety controls with intelligent devices to minimize human operation risks and enhance safe production.
- EHS in practice with everyone involved: trainings, accountability, and occupational health
- Less emission with clean and efficient production

# 04

## Testing Safety

Leave no stone unturned

### Battery Safety

- Compression Crash Tests
- Overcharge and Overdischarge Tests
- Short-Circuit Tests

### EMS Safety

- EMC Tests
- Fault Waveform Recording Tests
- Hardware-in-loop Simulation Tests

### Structural Safety

- Structural Strength Verification
- System Structural Simulation
- Structural Design Short/Long-term Testing Verification

### Electrical Safety

- Short-Circuit Tests
- Overload Temperature Rise Tests
- Insulation Withstand Voltage Tests

### Fire Safety

- Thermal Runaway and Propagation Tests
- Multi-dimensional Perception Detection Tests
- UL9540A Certification Tests

### Environmental Reliability

- Low Pressure Tests
- Salt Spray Tests
- Temperature Shock & Humidity Cycling Tests

# Service Leading



## One-Stop Customer Service

Focusing on products, technology, customer relations, sustainability, and internationalization, we provide personalized and comprehensive one-stop service to ensure customers have an excellent experience throughout the purchase, use, and maintenance of our energy storage systems.



# Customer Service Package — AlphaCare

The AlphaCare package is tailored for our end customers and partners, providing comprehensive services in technical support, financing plan, marketing etc..

- **Technical Support:**

Dedicated customer service from start to finish with our OSC (Online Service Center).

- **Marketing Support:**

Impactful co-branded initiatives to maximize brand exposure and early product upgrade info to stay competitive.

- **AlphaCloud:**

A lifetime-free energy management and monitoring platform for all AlphaESS systems.

- **AlphaPartner:**

Exclusive service platform for AlphaESS' partners including distributors and installers.



Individual Account



Instant Messaging



Work Order Management



Online Store



Active User Community

- **Low-Carbon Smart Park Platform**



\*Service items may vary by country/region, please contact your local AlphaESS business manager for further details.

Online Service Center  
(Coming Soon)

AlphaPartner  
(Web + App)

AlphaCloud  
(Web + App)

# 03

## ALPHA HOME

- All-in-One Energy Storage System
- PV-Storage-Charging Solution
- Balcony Energy Storage System
- Portable Power Station

# Residential Series

AlphaESS provides energy storage solutions ranging from 1 to 20 kW for households. With the AlphaCloud monitoring platform, users can fully enjoy the economic benefits and convenience of smart energy management.





S  
M  
I  
L  
E

## **SMILE** Product Series

- S**tronger Output
- M**odular Configuration
- I**ntelligent Management
- L**ong Lifespan
- E**fficient Operation

# All-in-One Energy Storage System



## Easy Installation

- All-in-One Design
- Plug & Play Wiring System
- Built-in SPD



## Flexible Expansion

- Modular System
- Bypass for Faulty Battery
- No Need for SOC Calibration



## Cutting-Edge VPP

- Tailored API for Dynamic VPP Scheduling
- Fast FCAS
- Global Compatibility\*

\*Leading the Australian VPP market; compliant with European Commission Regulations (EU) 2017/1485, 2016/631, 2016/1388, 2017/1485 for Frequency Containment Reserves

# YOUR ALMIGHTY KNIGHT

## SMILE-G3 Series

SMILE-G3-S3.6 / S5 / B5 / S8

SMILE-G3-T4 / 5 / 6 / 8 / 10

SMILE-G3-T12 / 15 / 20

SMILE-G3 series offers single-phase solutions ranging from 3.6 to 8 kW and three-phase solutions from 4 to 20 kW for home energy storage, catering to both AC and DC coupled scenarios. It covers a comprehensive range of needs including self-consumption for residential homes, peak-valley arbitrage, dual power supply with diesel generators, VPP (Virtual Power Plant) scheduling, solar storage charging, and solar storage heating.



GOOD DESIGN AWARD



red dot design award

# SMILE

  
AlphaESS



- G3

# HIGHER EFFICIENCY BRINGING MORE PROFITS



SMILE-G3-S3.6 / S5 / B5

Single Phase: 3.6 / 5 kW

Capacity: 3.8 - 60.5 kWh

Datasheet



SMILE-G3-S8

8 kW

8.2 - 49.2 kWh



SMILE-G3-T4 / 5 / 6 / 8 / 10

Three Phase: 4 / 5 / 6 / 8 / 10 kW

Capacity: 3.8 - 49.2 kWh

Datasheet



SMILE-G3-T12 / 15 / 20

Three Phase: 12 / 15 / 20 kW

Capacity: 7.7 - 49.2 kWh

Datasheet



## More Profits

- 200% PV Input
- MPPT Shadow Scanning
- High Voltage Battery with Higher RTE (Round-Trip-Efficiency)



## Energy Independence

- Seamless On/Off-Grid Switchover < 20ms
- UPS Peak Overloading up to 200%
- Dual Power Supply (Grid & Generator)



## Smart IoT

- VPP-Ready with Very Fast FCAS
- PV-Storage-Charging Solution
- SG Ready for Heat Pumps

Available in: Australia, Germany, UK, Italy, Belgium, Czech, The Philippines, Thailand, China, Middle East, Africa, Latin America, etc.





## HIGH VOLTAGE, HIGH EFFICIENCY



### SMILE-S6-HV

Single Phase: 6 kW  
Capacity: 5 - 49.2 kWh

Datasheet



### SMILE-T10-HV

Three Phase: 10 kW  
Capacity: 8.2 - 49.2 kWh

Datasheet



- High Voltage Battery System ( 153.6V/256V )
- PV Shadow Scanning for More Solar Energy Yield

- Fast Charging and Discharging (1C)
- Modular Design for Quick Installation

Available in: Germany, UK, Belgium, Poland, Australia, China, Thailand, etc.



## YOUR CHOICE FOR HOME ESS IN NORTH AMERICA



### SMILE-SP/SPB SERIES

Split-Phase: 7.6 / 9.6 kW

Capacity: 8.2 - 49.2 kWh

AC-Coupled & DC-Coupled

- 9.1 / 11.5 kW Peak AC Output
- 1.2C Continuous Charging/Discharging
- 95% Round-Trip Efficiency (DC-Coupled)
- VPP Ready
- 4 MPPTs, Max. 15 kW PV Input

Available in: North America, Latin America

Datasheet







## PIONEER OF ALL-IN-ONE SYSTEM

SMILE5 has made green living a reality for **30,000+** families worldwide

with **320+ MWh** total installed capacity

### SMILE5

Single Phase: 5 kW

Capacity: 2.9 - 80 kWh



Available in: Australia, UK, China, Japan

Datasheet



# YOUR BEST SOLUTION FOR RETROFITTING PV SYSTEM



## SMILE-B3

Single Phase: 3 kW

Capacity: 2.9 - 17.2 kWh

Datasheet



## SMILE-B3-Plus

Single Phase: 3 kW

Capacity: 5.04 - 30.24 kWh

Datasheet



## SMILE-B5/S5\*

Single Phase: 5 kW

Capacity: 5.04 - 30.24 kWh

\*SMILE-S5 also applies to  
DC/Hybrid-coupled solutions

Datasheet



Built-in Battery & Inverter



AC-Coupled: Compatible with Any Solar Inverter  
Brand Available on the Market



Space-saving & Lightweight



VPP Ready

Available in: Australia, UK, China

# EV CHARGER PV-Storage-Charging Solution

**SMILE-G3-EVCS7**  
Single Phase / 7 kW

**SMILE-G3-EVCT11**  
Three Phase / 11 kW



## User-Friendly

- Easy installation
- High compatibility
- Keycard or AlphaCloud launching for proprietary identification
- 7m-long charging cable



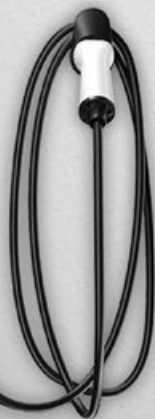
## Higher Profits

- 100% green energy consumption
- Subsidy available
- Lifetime-free upgrading online



## Multiple Charging Modes

- Green mode: EV charged only by solar energy or battery
- Fast mode: First priority for EV charging
- ECO mode: Customized timers and fixed power



Datasheet



Available in: EU, UK

# ALPHA CLOUD MONITORING PLATFORM

AlphaCloud is a lifetime-free platform (for App and Web) where you can easily manage every device connected to AlphaESS systems. As soon as a device is plugged in, AlphaCloud reads its information and prepares all the possible configurations for you, so that you can learn about or change your energy plan anytime, anywhere.



## Maximize your profit

- Exploit the full potential of your PV system
- Intelligent 24/7 monitoring to increase self-consumption
- Set parameters and join VPP



## Remote troubleshooting and upgrades



## Enjoy a smart home with IoT compatibility



## Data Security



# MICRO ENERGY STORAGE SYSTEMS

## May the Power be with you

AlphaESS's innovative 1-2kW/1-6kWh Micro Energy Storage Solutions are perfect for indoor balconies and outdoor portable settings. Featuring all-in-one design and plug-and-play installation, our systems guarantee safe and reliable power supply during emergencies and outdoor adventures. Embrace the freedom of green, clean energy—available whenever and wherever you need it.





## BALCONY SOLAR ENERGY SYSTEM

### VitaPower VT1000

· 1 kW / 2 kW · 1 - 6 kWh

- **Plug & Play**
- **All-in-One Design:**  
Built-in Battery, Micro-Inverter, DC Power Controller, and LCD
- **Versatile Applications:**  
On-Grid and Off-Grid
- **Safe & Reliable:**  
Durable Metal Casing & Extended Warranty Service
- **Stackable Expansion**



Available in: Germany

Brochure





## BALCONY SOLAR ENERGY SYSTEM

### VitaMate Set

Max. PV input power	600 W * 2
AC on-grid port max. input / output power	Max. 1200 W
AC off-grid port max. input / output power	2400 W / 1200 W
Battery port max. charge / discharge power	2400 W / 1200 W



### Battery Parameters

Capacity	1024 Wh
Battery Chemistry	LiFePO <sub>4</sub>
Ingress Protection	IP65



- UPS-level off-grid switching time <10ms
- Support AC-coupled in balcony microinverter systems
- On-grid and off-grid applications

Available in: Germany



## PORTABLE POWER STATION

- Big Capacity in Small Box
- Equipped with 2 Wireless Charging Pads
- Capable to Charge 12-15 Devices Simultaneously
- Chargeable with AC/PV
- 95% DoD (Depth of Discharge)



### BlackBee 1000

- 1 kW / 1 kWh
- 10.2 kg

Datasheet



### BlackBee 2000

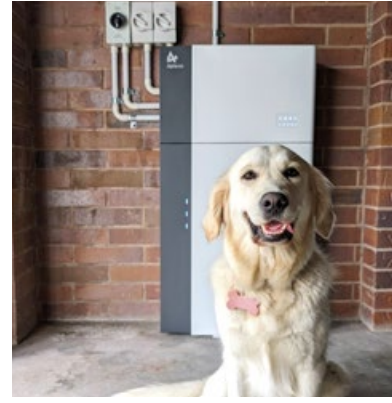
- 2.2 kW / 2 kWh
- 23 kg



Datasheet









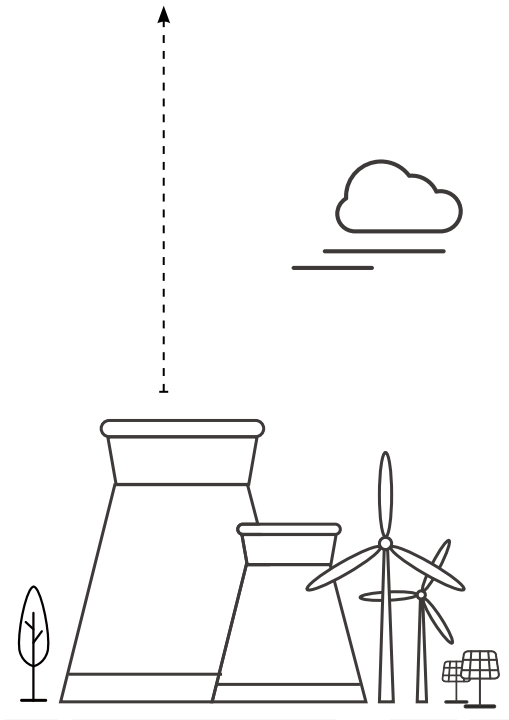
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ALPHA C&I

# EXPERT FOR ALL APPLICATION SCENARIOS

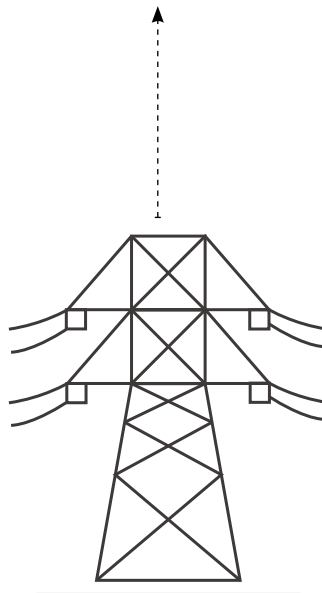
## Generation Side

- Smooth Wind & PV Power Output
- Maximizing Wind & PV Utilization
- Thermal Power Storage Frequency Modulation
- Active Power Control and Reactive Power Compensation



## Network Side

- Peak Shaving and Frequency Modulation
- Improving Power Quality and System Reliability
- Maintaining Voltage Stability of the Transmission Network
- Extending the Lifespan of Transmission Equipment
- Alleviating Peak Load Demand



## Behind-the-Meter

- Peak-Valley Arbitrage
- Backup Power
- Dynamic Expansion
- Virtual Power Plant (VPP)
- Microgrid
- Ancillary Services



# MASTER OF ADAPTATION



## Applicable Terrains



Desert



Gobi Desert



Plain



Mountain



Plateau



Coastline



## Applicable Climates



Hot & Dry



Cold & Humid



Thunderstorms



Heavy Snowfall



Salt Fog



Sandstorms

# LARGE C&I PROJECT INVESTMENT MODEL

## Client Self-Investment

AlphaESS is responsible for project construction and technical support; the ownership of the project and all profits belongs to the client.



## Third-party Investment / EMC (Energy Management Contract)

The ownership of the project belongs to the third-party investor, while the user client, with zero investment and operating costs, share peak-valley arbitrage profits with the investor, thereby reducing energy loss and saving electricity costs.



## AlphaESS Investment

AlphaESS invests and provides EPC contract, energy storage systems, and professional intelligent operation and maintenance services.





# CREATING VALUE FOR OUR CLIENTS

- Comprehensive Energy Solutions for the Full Lifecycle
- One-Stop Customized Service
- Integrated Management



# Full Lifecycle Service



## Technical Analysis

- Preliminary Data Collection
- On-Site Survey
- Equipment Selection
- Initial Project Design
- Technical Proposal Preparation



## Investment Analysis

- Expert Proposal Analysis
- Economic Assessment
- Establish Development Intentions
- Signing of Relevant Agreements



## Supporting Products

- Core R&D Team
- AlphaESS Core C&I Products
- System Commissioning and Testing
- Product Shipment and Delivery



## Professional Construction

- Lean Construction
- Professional Debugging
- On-Grid Operation
- Compliant with Industry Standards and Specifications
- Low-Carbon Smart Park Platform Management



## Intelligent Operation & Maintenance

- Software R&D Team
- Operation Data Statistics and Optimization
- Local Offices for Rapid Maintenance
- Intelligent Monitoring of System Operation
- Electricity Cost and Revenue Calculation



# AI

## Digitalized & Visualized Smart Energy Management

### Low-Carbon Smart Park Platform

The software platform functions as a digital hub and control panel for everything within an industrial park. Its AI algorithms ensure neat data analysis and informed decision-making, which increases the revenue of energy projects, reduces energy consumption, and facilitates the maintenance of equipment.



#### Main Customers:

- Industrial Enterprises
- Industrial Real Estate / O&M Investors
- District / County Government
- Energy Projects / O&M Investors





## Innovative Technologies:

- Distributed Energy Storage Virtual Power Plant Technology
- Industrial Park / Plant Digital Twin
- Integrated Platform
- Integrated Alarm System for All Facilities
- Integrated Surveillance Cameras / Access Control / Fire Protection System
- Integrated System Management
- Collaborative System Update and Optimization



## Targeted Pain Points:

- Construction without integrated planning.
- Multi-platform operation and maintenance in parks / factories.
- Efficient operation and maintenance management, revenue and cost saving of multi-projects.
- By providing an integrated platform covering all the issues above, AlphaESS provides the best smart park management solution for business owners.

# ALPHA



## Alpha C&I and Utility Solutions

For 30kW+ applications, AlphaESS C&I and utility-scale solutions can work in sync with wind and solar resources, significantly improving the self-consumption rate of clean energy, smoothing out power supply-demand fluctuations. They can also be integrated with advanced technologies such as smart energy management platforms and the Internet of Things (IoT), facilitating the transformation of energy structure and providing crucial support for achieving carbon neutrality goals.

# C&I



High Energy Density



Cell-Level Constant  
Temperature Control



Enhanced Electrical  
Protection





Intelligent Fire Protection

# 5MWh

## Liquid-Cooled Battery Container



Model	AlphaCS-H20-DC-LC 2.0
Rated Energy	5015.9 kWh
Ingress Protection	IP55
Charge/Discharge Rate	0.5 C
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Perfluorohexanone + Water
Battery Module	M166314-S  M332314-104S-CN 

- Multiple fire protection systems, battery pack-level suppression
- Enhanced electrical protection to mitigate short-circuit risks
- Liquid cooling for uniform temperature, 20% less energy loss
- Compatible with various PCS and EMS
- Cloud-based data management, remote troubleshooting
- 34% increase in energy density, reducing upfront investment
- Two options available: back-to-back or double-sided doors, adaptable to different station layouts

Available in: China

# 1500V

## Liquid-Cooled Battery Container



Model	AlphaCS-H20-DC-LC	AlphaCS-H20-DC-LC-EX
Rated Energy	3727.3 kWh	5015.9 kWh
Ingress Protection	IP55	IP55
Charge/Discharge Rate	0.5 C	0.5P
Battery Type	LiFePO <sub>4</sub>	LiFePO <sub>4</sub>
Fire Protection	Aerosol + Water (Optional: Perfluorohexanone)	Aerosol + Water
Battery Module	M166280-S	M332314-104S-EX



- Low noise
- High energy density
- Multiple intelligent fire protection systems
- Flexible layout, supporting parallel connection
- Intelligent thermal management strategy
- External maintenance design, efficient and convenient

Datasheet



# Liquid-Cooled Battery Cabinet

Model	STORION-LC-372
Rated Energy	372.7 kWh
Ingress Protection	IP55
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol + Water
Battery Module	M166280-S



All-in-one design for easy installation & transportation



Liquid cooling, system temperature difference  $\leq 3^{\circ}\text{C}$



Support parallel connection of multiple systems on the DC side



Compartment-level & pack-level intelligent fire protection systems with explosion relief strategy



High IP rating and dehumidification solution

Datasheet



# Air-Cooled All-in-One Cabinet

**NEW!**

Model	STORION-G2-H50	STORION-G2-H30
Rated Power	50 kW	30 kW
Rated Energy	55.2 ~ 104.8 kWh, Expandable up to 209.6 kWh	
Ingress Protection	IP20	
Battery Type	LiFePO <sub>4</sub>	
Fire Protection	Smoke Detector	
Battery Module	M7790-S or M38210-SC	



Datasheet



- PCS & battery all-in-one system
- Plug & play installation
- Seamless on/off-grid switching within 20ms
- Easy parameter settings, cloud-based control

- Multiple working modes available
- Support parallel connection of 5 systems (on-grid) or 3 systems (off-grid)

Model	STORION-H30-O
Rated Power	30 kW
Rated Energy	96.7 kWh
Ingress Protection	IP55
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol
Battery Module	M7790-S or M38210-SC



Datasheet



- PCS & battery all-in-one system
- Plug & play installation
- Space-saving design
- Support parallel connection of 3 systems (off-grid)



# Tailored Solutions



## STORION-T50/ T100 Series

Model	Indoor	Outdoor
Rated Power	50 / 100 kW Available	
Rated Energy	62 ~ 968 kWh	62 ~ 387 kWh
Ingress Protection	IP20	IP54
Safety Protection	<ul style="list-style-type: none"> <li>• Constant temperature control at 23±2°C</li> <li>• Self-diagnostic &amp; EMS cell-level detection</li> </ul>	<ul style="list-style-type: none"> <li>• Smoke &amp; temperature detection</li> <li>• FM-200 fire suppression system</li> </ul>
Battery Module	M38180-S or M38210-S	




- All-in-one design, space-saving
- Flexible configuration
- On/Off-grid switching time  $\leq 20\text{ms}$
- Support 200% PV oversized
- High security & control: cell-level monitoring of batteries

Datasheet





## TB187.5/375/500 Series

Model	Indoor	Outdoor (20/40ft)
Rated Power	187.5/375/500 kW Available	
Rated Energy	0.24 ~ 1.6 MWh	
Ingress Protection	IP20	IP54
Safety Protection	<ul style="list-style-type: none"> <li>• Constant temperature control at 23±2°C</li> <li>• Self-diagnostic &amp; EMS cell-level detection</li> </ul>	<ul style="list-style-type: none"> <li>• Smoke &amp; temperature detection</li> <li>• FM-200 fire suppression system</li> </ul>
Battery Module	M38180-S or M38210-S	

- Easy installation: most devices are pre-assembled at the factory
- Flexible configuration
- On/Off-grid switching time  $\leq 20\text{ms}$
- High security & control: cell-level monitoring of batteries
- Support parallel connection of containers: up to 2MW / 6.4MWh

Datasheet



# Industrial Battery Packs

## Liquid-Cooled Battery

Battery Module	M166314-S (0.5C)
Rated Voltage	166.4 V
Rated Power / Rated Energy	26.1 kW / 52.2 kWh
Cycle Life	≥ 6000 (@ 25°C)
Operating Temperature Range	-30°C ~ 50°C

Available in: China



Battery Module	M166280-S (0.5C)
Rated Voltage	166.4 V
Rated Power / Rated Energy	23.2 kW / 46.5 kWh
Cycle Life	≥ 6000 (@ 25°C)
Operating Temperature Range	-30°C ~ 50°C



Battery Module	M332314-104S(0.5C)
Rated Voltage	332.8 V
Rated Power / Rated Energy	52.2 kW / 104.4 kWh
Cycle Life	≥ 6000 (@ 25°C)
Operating Temperature Range	-30°C ~ 50°C



## Air-Cooled Battery



Battery Module	M38210-SC (0.5C)	M7790-S (1C)
Rated Voltage	38.4 V	76.8 V
Rated Power / Rated Energy	4.032 kW / 8.1 kWh	6.912 kW / 6.9 kWh
Cycle Life	≥ 6000 (@ 25°C)	
Operating Temperature Range	-30°C ~ 50°C	



Battery Module	M38180-S (1C)	M38210-S (0.5C)
Rated Voltage	38.4 V	38.4 V
Rated Power / Rated Energy	6.912 kW / 6.9 kWh	4.032 kW / 8.1 kWh
Cycle Life	≥ 6000 (@ 25°C)	
Operating Temperature Range	-10°C ~ 50°C	

**140MW / 280MWh + 80MW / 160MWh**

Peak Shaving and Frequency Regulation  
Ulanqab, Inner Mongolia





## 80 MW / 160MWh + 40MW / 80MWh

Peak Shaving and Frequency Regulation

Kubuqi, Inner Mongolia, China



## 100 MW / 200 MWh

Peak Shaving and Frequency Regulation

Anyang, Henan, China





**1** 50MW / 100MWh  
PV + Storage  
Anlu, Hubei, China



**2** 5MW / 10MWh  
PV + Storage  
Nanjing, Jiangsu, China



**3** 100kW / 206kWh  
PV + Storage + Genset  
Abu Dhabi, The UAE



**4** 100kW / 250kWh  
Off-Grid PV + Storage  
Moomba, SA, Australia

Scan the QR code  
for more details

