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@AlphaESS



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



WE DO MORE THAN  
**STORE** ENERGY  
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 and UTILITY



# 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 40+ subsidiaries and branches worldwide, including China, Germany, Australia, Italy, the United Kingdom, South Africa, Singapore, Malaysia, and more. With over 200,000 systems actively running across 130+ countries, we have built a comprehensive global supply chain and logistics network.

 **130 +**  
Countries & Regions

 **200,000 +**  
Systems Installed Globally

 **13 +**  
Years of Industry Experience

 **250 +**  
Patents in the ESS field

  
**TOP 1**

Residential Energy Storage  
Provider in Australia

  
**TOP 5**

Residential Energy Storage  
Provider in Germany

  
**TOP 5**

Global Residential  
Storage Provider



The Most Recommended  
Brand in Germany



iF & Reddot & G-mark  
Design Award



TOP BRAND PV  
(STORAGE & INVERTERS )



# Our History



# 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

40+

Subsidiaries

4

Production Centers

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



4

R&D Centers

Nantong, Suzhou, Nanjing, Tianjin



Headquarters



Subsidiary



Production Center

\*China: Nantong (Tongzhou & Qidong), Suzhou, Nanjing, Ulanqab, 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

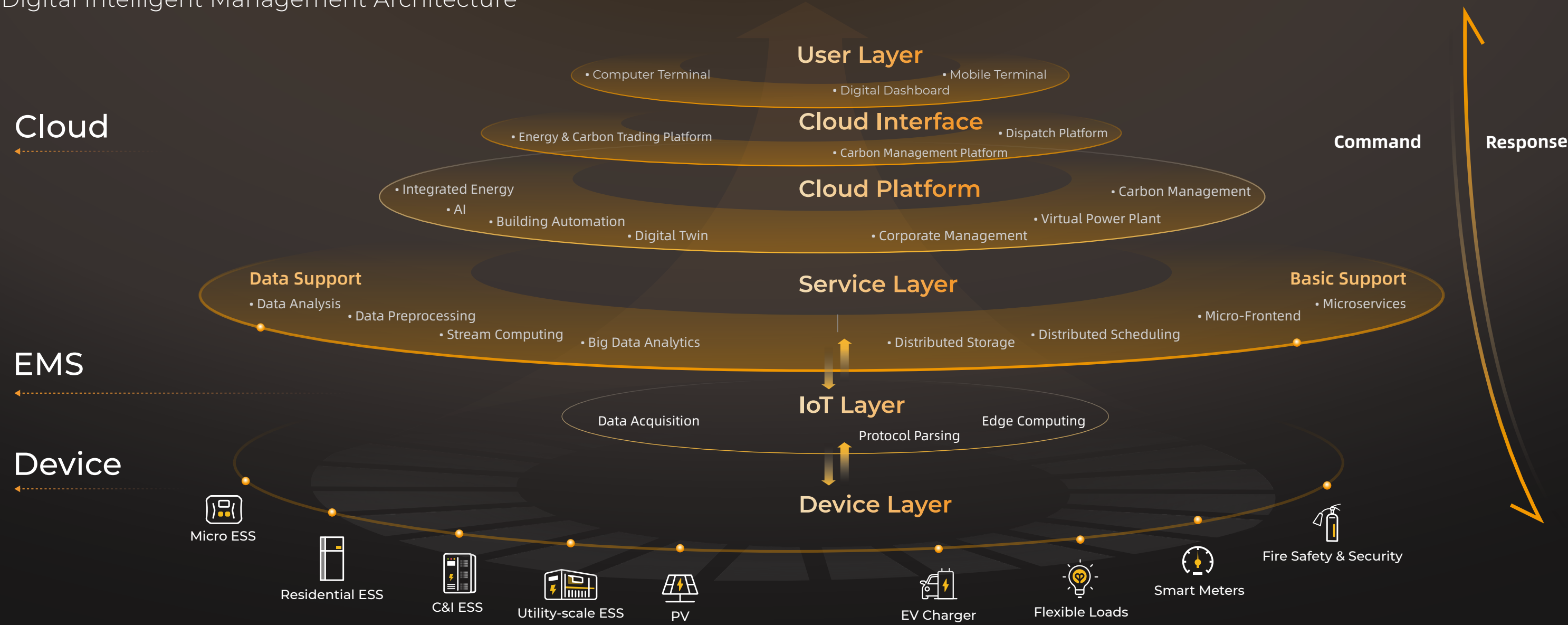
## CORE STRATEGY





# Smart Energy

Digital Intelligent Management Architecture



# Safe and Reliable

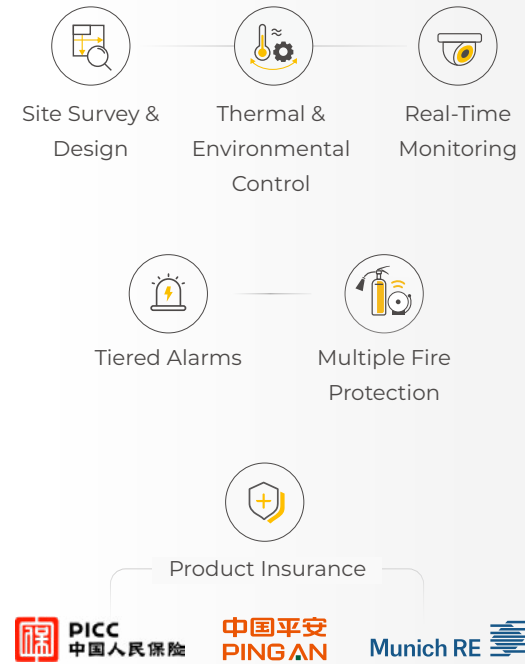
## 01 Material Safety

Secure the energy storage

Only first class, reliable  
**LiFePO<sub>4</sub>** cell will be  
used

## 02 System Safety

Secure the quality and performance



## 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

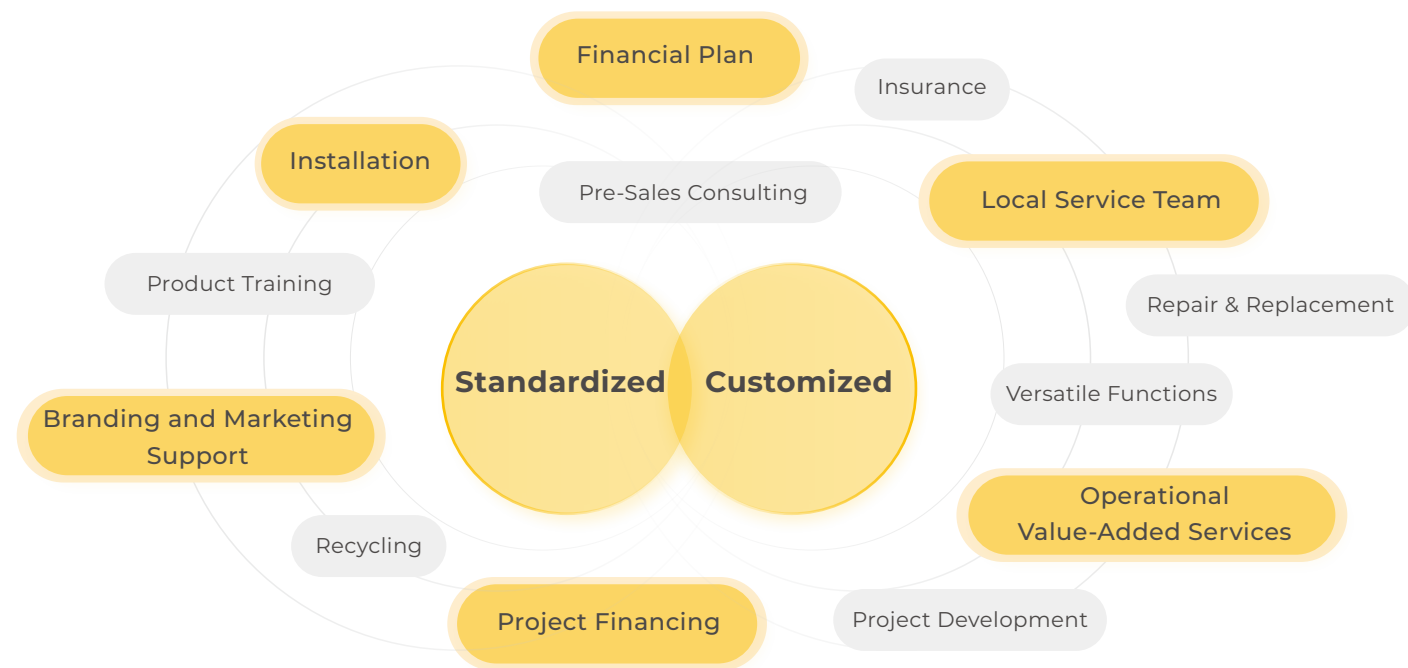


# Service Leading



## 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' parnters 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.





**SMILE** Product Series

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



**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

**All-in-One Energy Storage System**

First-  
Generation  
2013-2021



Next-Level  
Innovation

2022-2025

2023-2025



**Your Almighty Knight**  
SMILE-G3 Series

2025



**Stackable Innovation for Quick Setup**  
SMILE-M5 Series

2025



**Tailored for Weak-Grid Regions**  
SMILE-X Series (Pre-release)

# SMILE-G3 Series

YOUR ALMIGHTY KNIGHT

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



reddot design award

# SMILE-G3



# HIGHER EFFICIENCY BRINGING MORE PROFITS



SMILE-G3-S3.6 / S5 / B5

Single Phase: 3.6 / 5 kW  
Capacity: 3.8 - 60.5 kWh

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

SMILE-G3-T12 / 15 / 20

Three Phase: 12 / 15 / 20 kW  
Capacity: 7.7 - 49.2 kWh

Datasheet



Datasheet



Datasheet



## More Profits

- 200% PV Input
- MPPT Shadow Scanning
- High Voltage Battery with Higher RTE (Roud-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
- Dynamic Tariff Ready
- PV-Storage-Charging Solution

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

# EARN MORE FROM YOUR SMART ENERGY

With integrated partners, SMILE G3 supports dynamic tariffs and virtual powerplant programs-turning your battery into a profit engine.

- VPP-ready system with automatic trading participation
- Dynamic tariff optimization for lower costs
- Dynamic balancing + SOC calibration = better trading performance





## 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

# SMILE-M5 Series

STACKABLE DESIGN, NEW EXPERIENCE

SMILE-M5-S  
SMILE-M5-B

## System Power

5 kw

Single Phase

## Battery Module

5 kWh, 51.2V, 100Ah

13.9 kWh, 48V, 314Ah

## System Configuration

5-30 kWh

13.9-55.6 kWh

## Warranty

10 Years Warranty



## High Returns, Full Utilization

- 100% Depth of Discharge
- 200% PV Oversizing



## Fast & Easy Setup

- Stackable Design, 50% faster install
- 3-5 min One-Touch Commissioning



## Smart Safety Protection

- Aerosol Fire Defense
- 10+ Hardware & software Protections



## Reliable & Durable

- IP65 Dust & Water Resistant
- 10-Year Warranty

Available in: Australia, UK, China

Datasheet





## PIONEER OF ALL-IN-ONE SYSTEM

SMILE5 has made green living a reality for **35,000+** families worldwide  
with **560+ MWh** total installed capacity

**SMILE5**

Single Phase: 5 kW  
Capacity: 2.9 - 80 kWh

• Hybrid Inverter + Multiple Battery Options  
• Fast Response for VPP



Available in: Australia, UK, China, Japan

Datasheet



## YOUR BEST SOLUTION FOR RETROFITTING PV SYSTEM

- SMILE-B3-Plus**
- Single Phase: 3 kW  
Capacity: 5.04 - 30.24 kWh
- Built-in Battery & Inverter
  - Space-saving & Light Weight
  - High Compatibility with Solar Systems

Available in: Australia, UK, China







Datasheet



## ALPHACLOUD 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**





# BALCONY SOLAR ENERGY SYSTEM

## Plug into a greener lifestyle, one balcony at a time

Discover a smarter way to power your home with the AlphaESS Vitapower Series. Perfect for urban living, this innovative system fits seamlessly on your balcony, storing enough energy to keep your lights on and your devices charged during peak hours. With its sleek, all-in-one design and effortless plug-and-play setup, you can start saving on electricity bills in minutes—no professional help needed. Harness clean, renewable energy, shrink your carbon footprint, and take control of your energy usage, all from the comfort of your home !



### VitaPower VT1000

1kW/2kW · 1-6 kWh

#### All-in-One Design:

Built-in Battery, Micro-Inverter, DC Power Controller, and LCD

#### Versatile Applications:

On-Grid and Off-Grid

#### Plug & Play

#### Stackable Expansion

#### Safe & Reliable:

Durable Metal Casing & Extended Warranty Service



### 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

Brochure









# 04

## ALPHA C&I

### EXPERT FOR ALL APPLICATION SCENARIOS

#### Generation Side

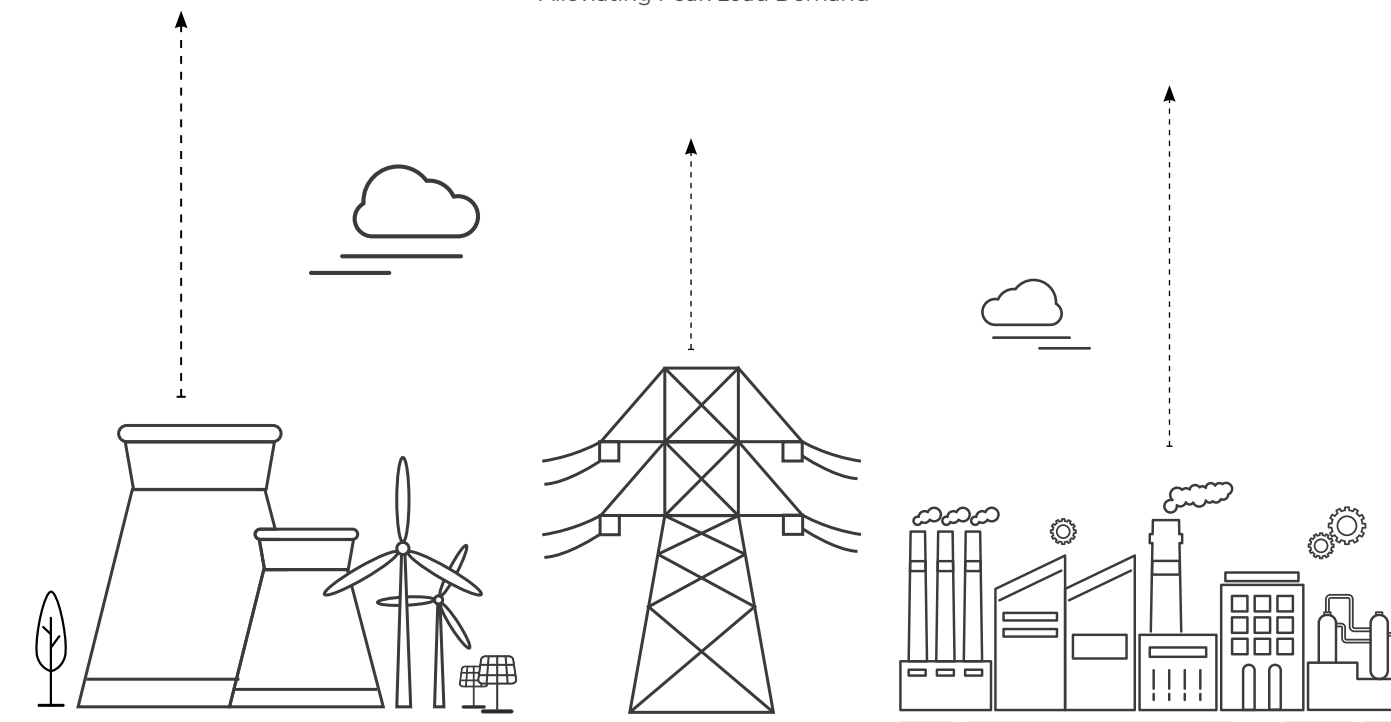
- Smooth Wind & PV Power Output
- Maximizing Wind & PV Utilization
- Thermal Power Storage Frequency Modulation
- Active Power Control and Reactive Power Compensation

#### 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 C&I and Utility



## 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.



High Energy Density



Cell-Level Constant  
Temperature Control



Enhanced Electrical  
Protection



Intelligent Fire Protection

# ALPHA C&I Solutions



## ***STORION-M50***

*Flexible to Install. Hassle-Free Maintenance.*

Powered by World's first Stackable Battery and Unique BMS functionality, the M50 series gives end to end customers with stability and more possibilities to handle varied needs. The modular design can easily fit into different site requirements with a simple stack and start installation.

- **Effortless Installation with Modular Design**

The modular design ensures seamless adaptation to various site requirements, enabling a simple stack-and-start installation process.

- **Advanced Software for Maximum Efficiency**

Our cutting-edge software protects against profit loss by addressing key challenges:

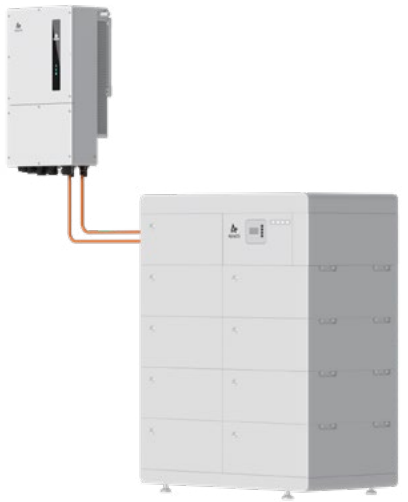
- Prevents capacity degradation due to SOC differences.
- Avoids system shutdowns caused by a single battery failure.
- Enhances savings on electricity bills with a more flexible EMS strategy.







Model	STORION-M50
Rated Power	50 kW
Rated Energy	108.54-217.08 kWh
Ingress Protection	IP66
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol
System Power	160%, 10s overload capacity 100% unbalance output
Warranty	5 years for system 10 years for battery
PV	4MPPT 8 string 40A input current 200% PV oversizing
Battery Module	M38314-S



Datasheet

## STORION-M50



### 70% Faster Installation

- No racks, no wiring
- Self-check in 2 mins



### Self-Optimizing Batteries: Hassle-Free Maintenance

- Dynamic Balancing: Automatic calibration for SOC consistency
- AI-Powered Predictive Diagnostics: 0ms fault isolation



### Higher Energy Density

- Saving space for customers



### Grow Anytime, Anywhere

- Dynamic balancing automatically aligns SOC between existing and new battery modules



Liquid-Cooled All-in-One Cabinet

Model	STORION-LC-TB100
Rated Power	100 kW
Rated Energy	221 kWh
Ingress Protection	IP55
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol + Perfluorohexanone
Battery Module	M166280-S



Available in: China


- Perfluorohexanone PACK-level fire protection + water-based suppression
- Multi-unit parallel, flexible functions, transformer-level management
- High integration, system efficiency ≥ 90%
- Cabinet-level protection, SOC balancing in parallel
- Cloud O&M, parameter control, optimized ROI




Datasheet




Model	STORION-LC-H125
Rated Power	125 kW
Rated Energy	261 kWh
Ingress Protection	IP55
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol + Sprinkler
Battery Module	M166314-S



- All-in-One Design
- Easily Set Function Parameters
- Seamless Switching to backup
- 200% PV input oversizing
- Safer Intelligent Fire Protection System
- System-wide Temperature Difference within 3°C



Datasheet



Model	STORION-LC-TB125
Rated Power	125 kW
Rated Energy	261 kWh
Ingress Protection	IP55
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol + Sprinkler
Battery Module	M166314-S



- All-in-one Design
- Easily Set Function Parameters
- Safer Intelligent Fire Protection System
- Various Operating Modes Available For Selection
- Seamless switching to backup(≤ 20ms with STS Cabinet)



Datasheet



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



- Flexible Site Layout
- High Energy Density
- Dehumidification Design
- High-Level System Integration
- Intelligent Heat Management Strategy
- Safer Dual Fire Fighting and Explosion Deflation Solutions



Datasheet



Air-Cooled All-in-One Cabinet

Model	STORION-H30/H50-G3
Rated Power	30/50 kW
Rated Energy	72.3~120.5 kWh, Expandable up to 241 kWh (H30-G3)  96.4~120.5 kWh, Expandable up to 241 kWh (H50-G3)
Ingress Protection	IP20
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Aerosol + Smoke / Temperature Detection
Battery Module	M77314-S



Model	STORION-G2-H50
Rated Power	50 kW
Rated Energy	6.9 kWh Battery Module 55.29 / 110.59 kWh  8.0 kWh Battery Module 104.8 / 209.6 kWh
Ingress Protection	IP20
Battery Type	LiFePO <sub>4</sub>
Fire Protection	Smoke / Temperature
Battery Module	M7790-S / M38210-SC



- All-in-One Design
- Optimal for Multi-Direction Roof
- Multiple System Operation Monitoring
- Max 10 systems in on-grid parallel, 4 systems in off-grid parallel

Datasheet



- All in One Design
- Support Multi-Direction Roof
- Multiple System Operation Monitoring
- Max 5 systems in on-grid parallel, 3 systems in off-grid parallel

Datasheet







# Utility Solutions



Model	STORION-TB250	STORION-TB500
Rated Power	250 kW	500 kW
Rated Energy	235.1-2351.2 kWh	
Ingress Protection	Container: IP54	Cabinet: IP55
Battery Type	LiFePO4	
Fire Protection	Aerosol	

- Easily Installation
  - Seamless Switching (<20ms)
  - Easily Set Function Parameters
- Intelligent liquid cooling temperature control
  - Various Operating Modes Available For Selection

Datasheet





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 P
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 design, 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



Datasheet

Available in: China

1500V

Liquid-Cooled Battery Container



Model	Aster 5000	Aster 3720
Rated Energy	5015.9 kWh	3727.3 kWh
Ingress Protection	IP55	
Charge/Discharge Rate	0.5 P	
Battery Type	LiFePO <sub>4</sub>	
Fire Protection	Aerosol + Sprinkler	Aerosol + Sprinkler (Optional: Perfluorohexanone)
Battery Module	M332314-104S-EX	M166280-S

- 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

1000V

Liquid-Cooled Battery Container



Model	AlphaCS-H20-MEA-DC250	AlphaCS-H20-MEA-AC250/500
Rated Energy	Max. 1175.6 kWh	Max. 1410.7 kWh
Ingress Protection	IP54	
Charge/Discharge Rate	0.5P	
Battery Type	LiFePO <sub>4</sub>	
Fire Protection	Aerosol	
Battery Module	M166314-52S-EX	

- All-in-One Design
  - Easily Installation
- Seamless Switching (<20ms)
  - Flexible layout, supporting parallel connection




Datasheet

Available in: MEA

1000V

Liquid-Cooled Battery Container



Model	AlphaCS-H40-MEA-DC500	AlphaCS-H40-MEA-AC500/1000
Rated Energy	Max. 2351.2 kWh	
Ingress Protection	IP54	
Charge/Discharge Rate	0.5P	
Battery Type	LiFePO <sub>4</sub>	
Fire Protection	Aerosol	
Battery Module	M166314-52S-EX	

- Easily Set Function Parameters management strategy
- Intelligent liquid cooling temperature control
  - Various Operating Modes Available For Selection



Datasheet

Available in: MEA



# 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)	M38210-S (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	-10°C ~ 50°C	-30°C ~ 50°C



Battery Module	M38180-S (1C)	Battery Module	M38314-S
Rated Voltage	38.4 V	Rated Voltage	38.4 V
Rated Power / Rated Energy	6.912 kW / 6.9 kWh	Operating Voltage	32.4 ~ 42.24V
Cycle Life	≥ 6000 (@ 25°C)	Battery Type	LiFePO <sub>4</sub>
Operating Temperature Range	-10°C ~ 50°C	Max. Charging/Discharging Current	157 A



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

Peak Shaving and Frequency Regulation

Ulanqab, Inner Mongolia





## 80MW / 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



2



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

3



4



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