AlphaESS
your smart energy

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

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 @AlphaESS   @AlphaESS   @AlphaESS   @AlphaESS   www.alphaess.com

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

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

NPS 92,3%
NET PROMOTER SCORE

The Most Recommended Brand in Germany

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

2025

.....

Global Presence

UK

Germany

Italy

United States

Republic of Korea

Japan

Global Headquarters - China*

Cayman

Malaysia

Overseas Headquarters - Singapore

South Africa

Australia

New Zealand

40+
Subsidiaries

4
Production Centers

China: Nantong (Tongzhou & Qidong), Ulanqab

Malaysia: Kulim

4
R&D Centers

Nantong, Suzhou, Nanjing, Tianjin

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

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
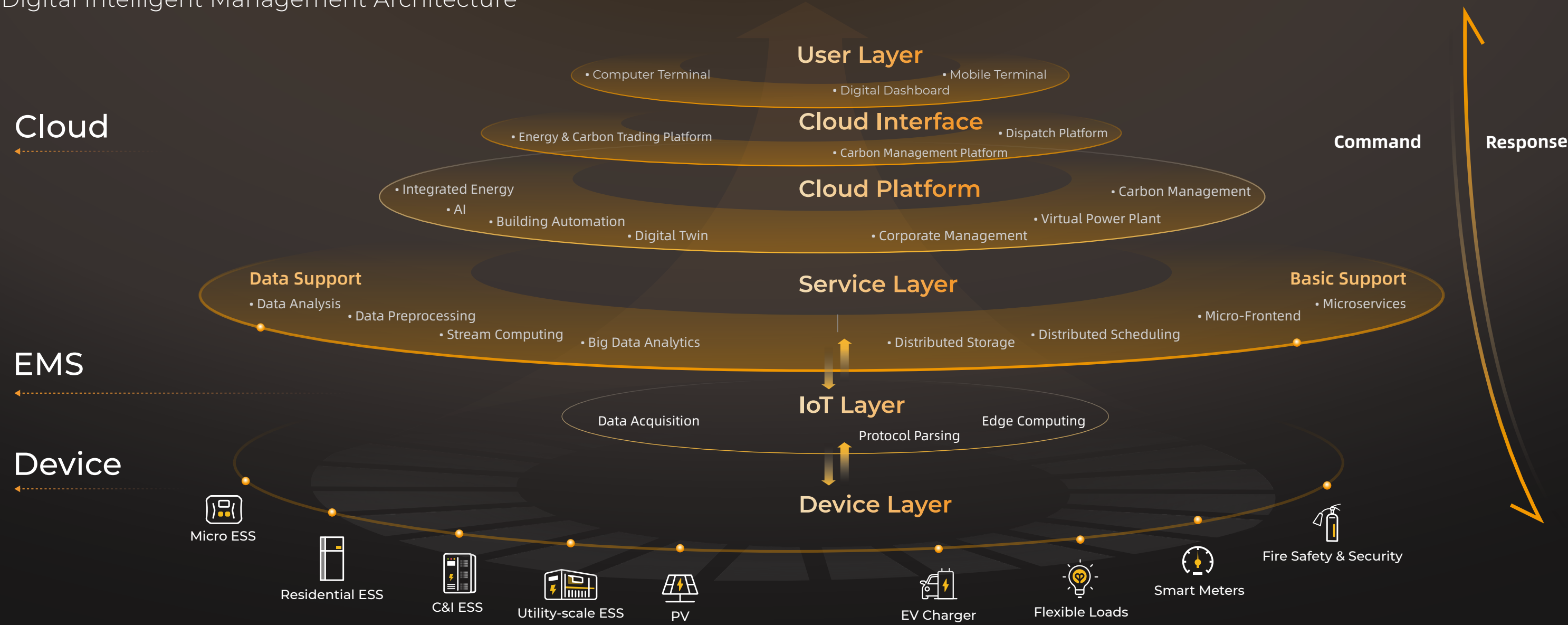- Residential Energy Storage Systems
- Micro Energy Storage Systems

02

CORE STRATEGY

01
Smart Energy

CORE

02
Safe and Reliable

03
Service Leading

Smart Energy

Digital Intelligent Management Architecture

Command · **Response**

Cloud

User Layer
- Computer Terminal
- Mobile Terminal
- Digital Dashboard

Cloud Interface
- Energy & Carbon Trading Platform
- Dispatch Platform
- Carbon Management Platform

Cloud Platform
- Integrated Energy
- AI
- Building Automation
- Digital Twin
- Carbon Management
- Virtual Power Plant
- Corporate Management

EMS

Service Layer

Data Support
- Data Analysis
- Data Preprocessing
- Stream Computing
- Big Data Analytics
- Distributed Storage
- Distributed Scheduling

Basic Support
- Microservices
- Micro-Frontend

IoT Layer
- Data Acquisition
- Edge Computing
- Protocol Parsing

Device

Device Layer
- Micro ESS
- Residential ESS
- C&I ESS
- Utility-scale ESS
- PV
- EV Charger
- Flexible Loads
- Smart Meters
- Fire Safety & Security

Safe and Reliable

01
Material Safety

Secure the energy storage

Only first class, reliable
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

PICC 中国人民保险

中国平安 PINGAN

Munich RE
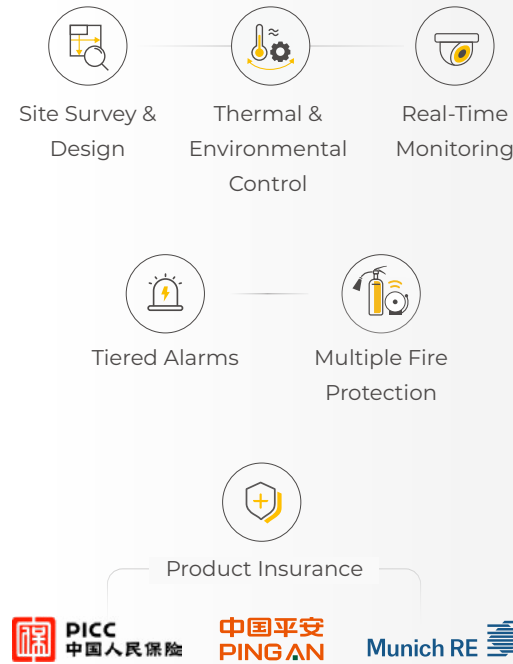
03
Workplace Safety

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
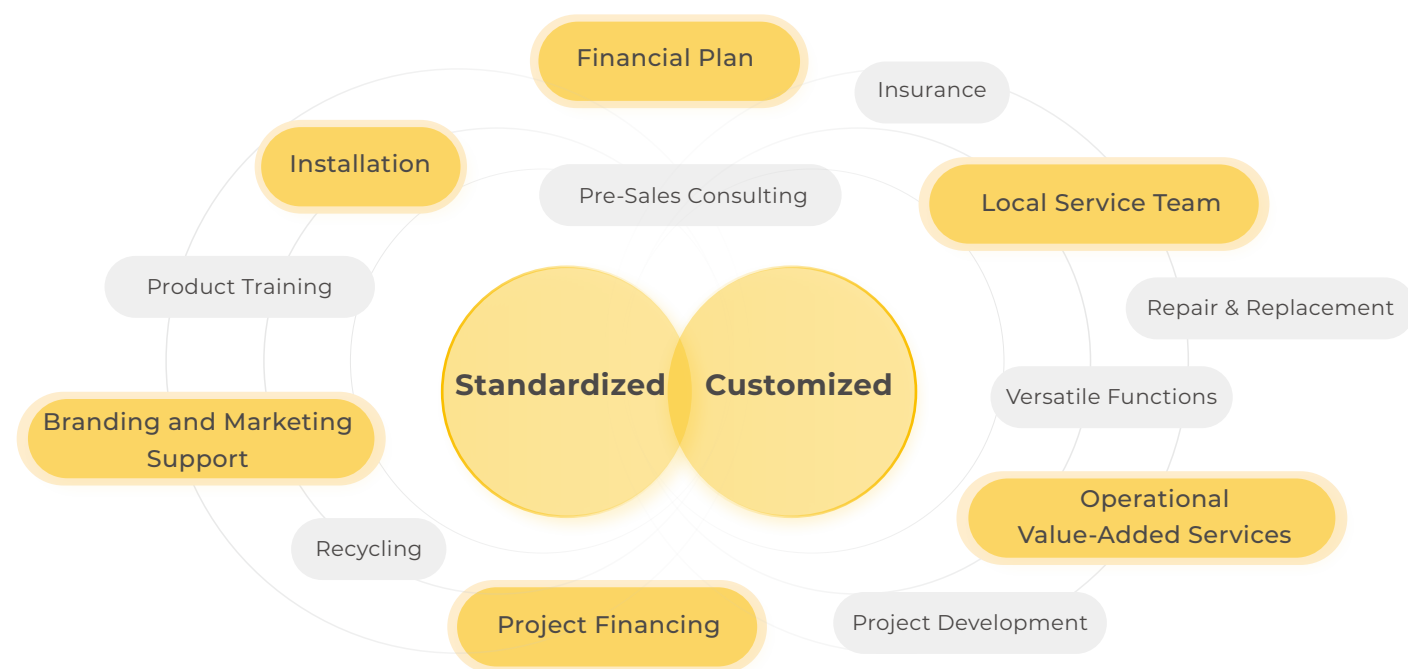
Environmental Reliability

· 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.

Standardized / Customized

- Financial Plan
- Insurance
- Installation
- Pre-Sales Consulting
- Local Service Team
- Product Training
- Repair & Replacement
- Branding and Marketing Support
- Versatile Functions
- Recycling
- Operational Value-Added Services
- Project Financing
- Project Development

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

2014-2021

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	SMILE-G3-S8	SMILE-G3-T4 / 5 / 6 / 8 / 10	SMILE-G3-T12 / 15 / 20
Single Phase：3.6 / 5 kW	8 kW	Three Phase：4 / 5 / 6 / 8 / 10 kW	Three Phase：12 / 15 / 20 kW
Capacity：3.8 - 60.5 kWh	8.2 - 49.2 kWh	Capacity：3.8 - 49.2 kWh	Capacity：7.7 - 49.2 kWh

Datasheet   Datasheet   Datasheet   Datasheet

More Profits

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

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 propriet ary 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

1 kW / 2 kW · 1 - 6 kWh

All-in-One Design:

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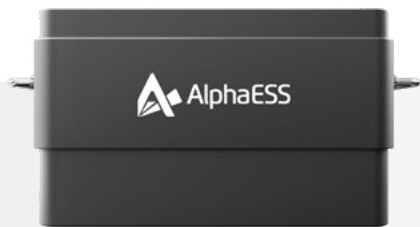
Versatile Applications:

On-Grid and Off-Grid

Plug & Play

Stackable Expansion

Safe & Reliable:

Durable Metal Casing & Extended Warranty Service

■ Battery Parameters

Capacity	1024 Wh
Battery Chemistry	LiFePO$_4$
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 and Utility

# 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
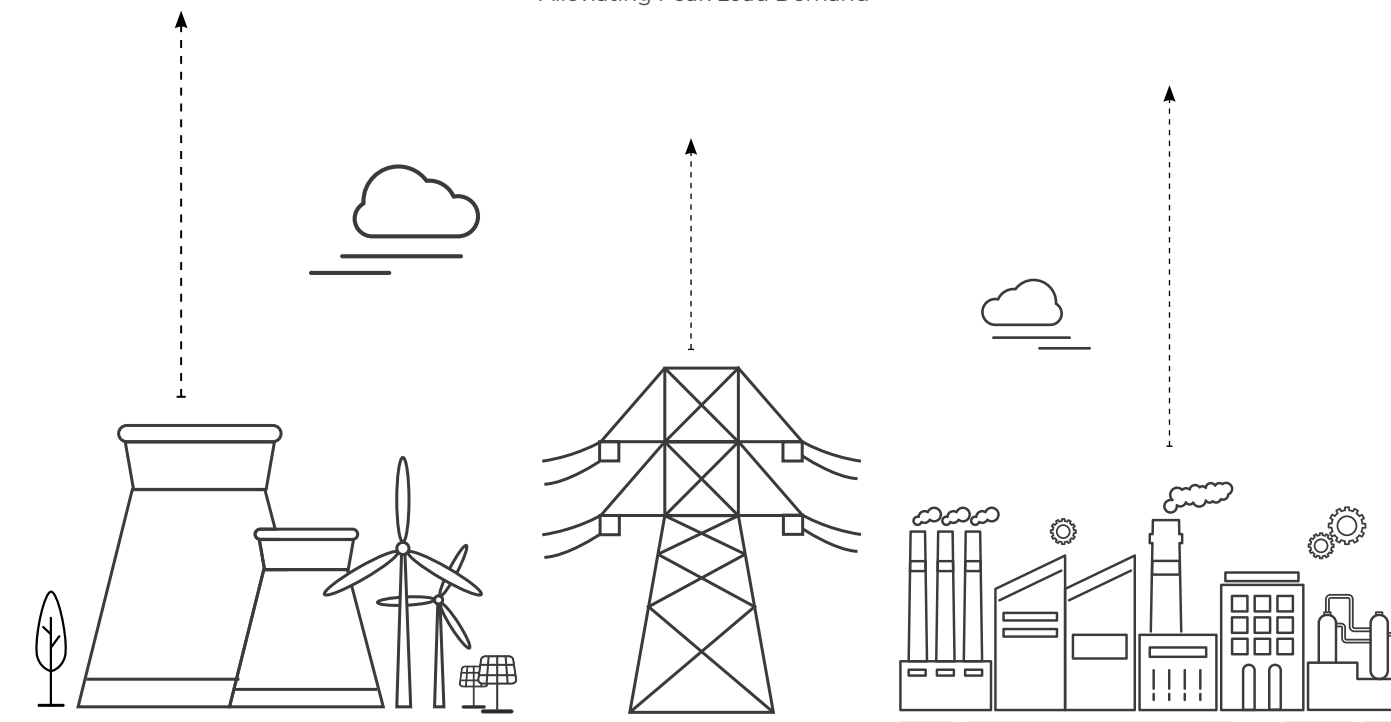
MASTER OF ADAPTATION

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.

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

Main Customers:

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

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	LiFePO₄
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

- 70% Faster Installation：No battery rack or wiring needed — just stack and start
- Self-optimizing Batteries: Hassle-free Maintenance
- Easy Expansion: Free you from time-consuming capacity balancing
- Boost Lifetime Output: Automated diagnostics & calibration for SOC consistency
- 200% PV input to boost profits

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	LiFePO₄
Fire Protection	Aerosol + Smoke / Temperature Detection
Battery Module	M77314-S

- 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

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	LiFePO₄
Fire Protection	Smoke / Temperature
Battery Module	M7790-S / M38210-SC

- 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

Liquid-Cooled All-in-One Cabinet

Model	STORION-LC-TB125
Rated Power	125 kW
Rated Energy	261 kWh
Ingress Protection	IP55
Battery Type	LiFePO₄
Fire Protection	Aerosol + Sprinkler
Battery Module	M166314-52S-EX

- 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)

Expansion Battery Cluster (Optional)

Model	STORION-LC261
Rated Charging/Discharging Power	130.6 kW(0.5P)
Rated Energy	261 kWh per Cabinet
Battery Cluster Voltage Range	702 - 936 V
Battery Rack	5 Modules in series
Fire Protection	Aerosol + Sprinkler+ Smoke / Temperature Detection
Battery Module	M166314-52S-EX

Model	STORION-LC-H125
Rated Power	125 kW
Rated Energy	261 kWh
Ingress Protection	IP55
Battery Type	LiFePO₄
Fire Protection	Aerosol + Sprinkler
Battery Module	M166314-S

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

Model	STORION-LC-372
Rated Energy	372.7 kWh
Ingress Protection	IP55
Battery Type	LiFePO₄
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

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

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	LiFePO₄
Fire Protection	Perfluorohexanone + Water
Battery Module	M166314-S
	M332314-104S-CN

Available in: China

· 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

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	LiFePO₄	
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	LiFePO₄	
Fire Protection	Aerosol	
Battery Module	M166314-52S-EX	

· All-in-One Design · Seamless Switching (<20ms)

· Easily Installation · Flexible layout, supporting parallel connection

Available in: MEA

Datasheet

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	LiFePO₄	
Fire Protection	Aerosol	
Battery Module	M166314-52S-EX	

· Easily Set Function Parameters · Intelligent liquid cooling temperature control

management strategy · Various Operating Modes Available For Selection

Available in: MEA

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

	M38210-SC (0.5C)	M38210-S (0.5C)	M7790-S (1C)
Battery Module			
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)
Rated Voltage	38.4 V
Rated Power / Rated Energy	6.912 kW / 6.9 kWh
Cycle Life	≥ 6000 (@ 25°C)
Operating Temperature Range	-10°C ~ 50°C

Battery Module	M38314-S
Rated Voltage	38.4 V
Operating Voltage	32.4 ~ 42.24V
Battery Type	LiFePO$_4$
Max. Charging/Discharging Current	157 A

140MW / 280MWh + 80MW / 160MWh

Peak Shaving and Frequency Regulation
Ulanqab, Inner Mongolia

80 MW / 160 MWh + 40 MW / 80 MWh

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

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