



**Optimal Energy
Solutions –
Building a
Sustainable Future
Together**

**INNOVATIVE APPROACHES
FOR A GREENER TOMORROW**



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- **Why Choose OES?**
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Introduction to Optimal Energy Solutions



Welcome to Optimal Energy Solutions – Empowering a Sustainable Future

As a leader in renewable energy storage and the exclusive representative of SVOLT Energy Technology in Eastern Europe, we bring innovation, reliability, and sustainability to every project.

Let's transform tomorrow, today.



Leadership in Renewable Energy Storage



Innovative Energy Solutions

OES is recognized for its pioneering renewable energy storage solutions that drive the energy transition forward.

Sustainable Energy Transition

Our leadership in renewable energy storage supports the global shift towards sustainable energy sources and reduces carbon footprints.

Energy Innovation Leadership

At OES, we are committed to being at the forefront of energy innovation, ensuring a cleaner energy future.





Exclusive Representation of SVOLT Energy Technology in Eastern Europe

SVOLT Energy Technology

SVOLT Energy Technology specializes in advanced battery storage solutions, enhancing the sustainability of energy systems.

Sustainable Energy Solutions

Our offerings include innovative energy solutions that contribute to a more sustainable future through advanced technology.

Eastern Europe Representation

We are proud to represent SVOLT in Eastern Europe, bringing cutting-edge battery technology to the region.



Commitment to Innovation, Reliability, and Sustainability

Focus on Innovation

Our commitment to innovation drives us to develop cutting-edge solutions for energy challenges, enhancing efficiency and effectiveness.

Ensuring Reliability

Reliability is key in our mission, ensuring that our solutions are dependable and meet energy demands consistently.

Sustainability Goals

Emphasizing sustainability, we aim to create energy solutions that contribute to a greener future for generations to come.



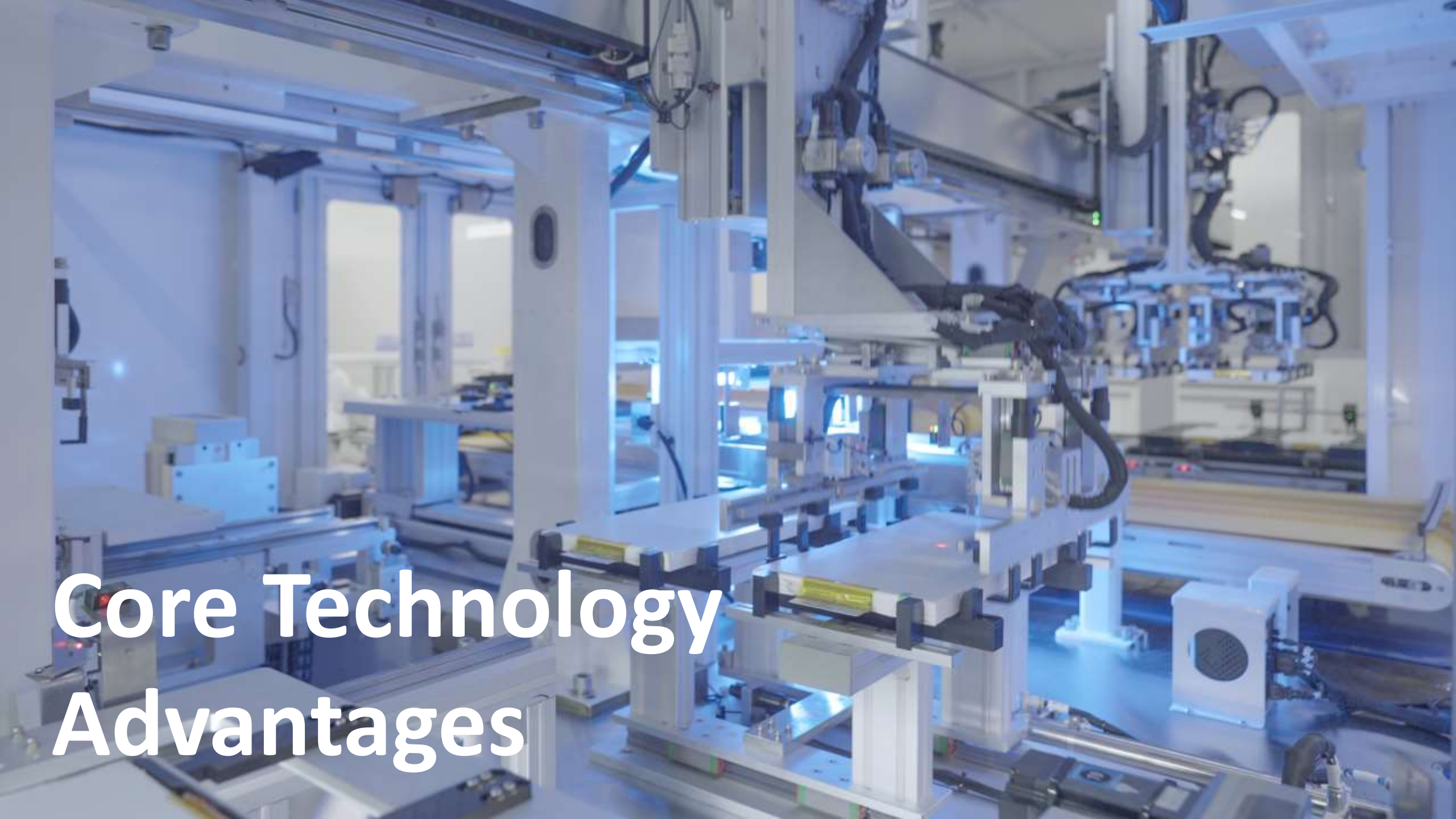




Your Reliable Partner **in Energy Innovation**

- **Proven Expertise:** Backed by a professional team with extensive experience in diverse energy projects.
- **State-of-the-Art Technology:** Exclusive integration with SVOLT's advanced BESS technologies, ensuring maximum efficiency and safety.
- **Custom Solutions:** From design to commissioning, we create systems that perfectly fit your needs.
- **Future-Proof Systems:** Our designs guarantee adaptability for emerging energy challenges.





Core Technology Advantages

Empowering the **New Energy Era**



- **Safety First:** Multi-dimensional designs prevent thermal spread and ensure operational security.
- **Fast Charging:** Cutting-edge cathode and anode innovations for reduced charging time and improved performance.
- **Long Lifespan:** With over 8,000 energy cycles and robust material engineering, our solutions stand the test of time.



State-of-the-Art Technology with SVOLT's Advanced BESS

Advanced Battery Technology

SVOLT's advanced battery energy storage systems represent cutting-edge technology designed for enhanced performance.

Performance Enhancement

The collaboration with SVOLT enables improved energy performance and efficiency in energy management applications.

Sustainability Focus

Utilizing SVOLT's BESS promotes sustainability in energy management, contributing to a greener future.



Custom Solutions Tailored to Your Needs



Understanding Client Uniqueness

We prioritize understanding the unique needs of each client to provide effective solutions tailored to them.

Customizable Energy Solutions

Our energy solutions are fully customizable, allowing clients to select options that best fit their requirements.

Meeting Specific Challenges

We aim to address each client's specific challenges through innovative and tailored energy strategies.



Future-Proof Systems for Emerging Energy Challenges



Adaptability in Energy Systems

Developing energy systems that can adapt to changing environmental and technological challenges is crucial for sustainability.



Long-term Viability

Future-proof energy systems ensure long-term viability by integrating diverse energy resources and technologies.



Addressing Energy Challenges

Addressing emerging energy challenges requires innovative solutions that can efficiently manage resources and reduce environmental impact.





Our Services

Our services are designed to provide **innovative, efficient, and tailored energy solutions**, ensuring reliability and sustainability for diverse applications.





Comprehensive **Turnkey Solutions**

- **Design and Detailed Engineering**
- **Procurement**
- **Installation and Commissioning**
- **First-Class EPC Construction**
- **Advanced System Monitoring**



Design and Detailed Engineering

Advanced Design Services

Our advanced design services ensure that each project is tailored to meet specific client requirements and industry standards.

Engineering Excellence

We emphasize engineering excellence by utilizing the latest tools and technologies to deliver high-quality projects.

Adherence to Standards

Our commitment to adhering to industry standards guarantees the reliability and safety of every project we undertake.





Our Products

PRODUCT DISPLAY



Battery Cell

Short blade Cells



VDA Cells



Pouch & Cylindrical Cells

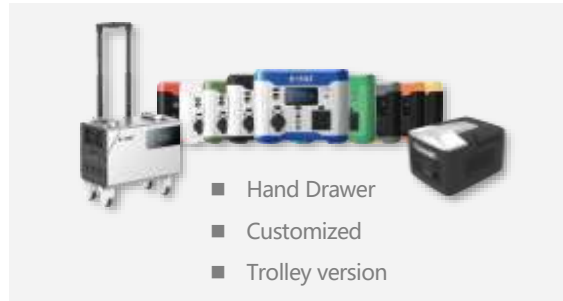


Small-scale BESS

Residential ESS "At Will Selection"



Portable ESS "Family Package"

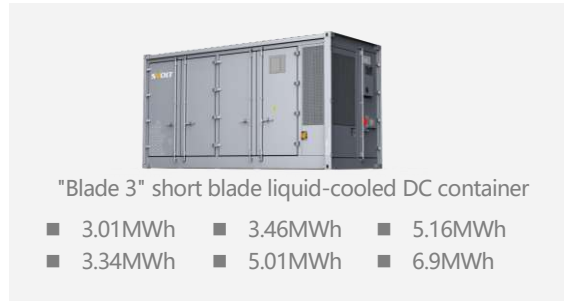


Large & Medium-scale BESS

C&I ESS



Utility ESS



Intelligent Applications

EMS



Early Warning All-in-One



Big Data Platform



BATTERY CELL



High
Energy
Density

Long
Cycle Life

**Short-
Blade
Cells**

High
Consistency

High
Safety

325Ah



26*500*215
(mm)

- | | | | |
|-------------------------|--------------|-------------------------|----------|
| ● Chemical System | LFP | ● Voltage Range (V) | 2.5~3.65 |
| ● Product Type | L500 | ● Nominal Voltage (V) | 3.2 |
| ● Weight (kg) | 6.3 | ● Cycle Life (Cycles) | 9000 |
| ● Nominal Capacity (Ah) | 325Ah (0.5P) | ● Energy Density (Wh/L) | 372 |

350Ah



26*500*215
(mm)

- | | | | |
|-------------------------|--------------|-------------------------|----------|
| ● Chemical System | LFP | ● Voltage Range (V) | 2.5~3.65 |
| ● Product Type | L500 | ● Nominal Voltage (V) | 3.2 |
| ● Weight (kg) | 6.6 | ● Cycle Life (Cycles) | 8000 |
| ● Nominal Capacity (Ah) | 350Ah (0.5P) | ● Energy Density (Wh/L) | 400 |

New!

770Ah



53*500*215
(mm)

- | | | | |
|-------------------------|---------------|-------------------------|----------|
| ● Chemical System | LFP | ● Voltage Range (V) | 2.5~3.65 |
| ● Product Type | L500 | ● Nominal Voltage (V) | 3.2 |
| ● Weight (kg) | 13.1 | ● Cycle Life (Cycles) | 9000 |
| ● Nominal Capacity (Ah) | 770Ah (0.25P) | ● Energy Density (Wh/L) | 435 |

New!

BATTERY CELL



High
Energy
Density

Long
Cycle Life

VDA
Cells

High
Consistency

High
Safety

100Ah



53*148*115
(mm)

- Chemical System LFP
- Product Type VDA
- Weight (kg) 1.85
- Nominal Capacity (Ah) 100Ah (0.5P)
- Voltage Range (V) 2.5~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 2500
- Energy Density (Wh/L) 346

106Ah



52*148*112
(mm)

- Chemical System LFP
- Product Type VDA
- Weight (kg) 1.925
- Nominal Capacity (Ah) 106Ah (0.5P)
- Voltage Range (V) 2.5~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 4000
- Energy Density (Wh/L) 396

222Ah



54*174*207
(mm)

- Chemical System LFP
- Product Type VDA
- Weight (kg) 4.19
- Nominal Capacity (Ah) 222Ah (0.5P)
- Voltage Range (V) 2.5~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 8000
- Energy Density (Wh/L) 367

314Ah



71.6*174*207
(mm)

- Chemical System LFP
- Product Type VDA
- Weight (kg) 5.75
- Nominal Capacity (Ah) 314Ah (0.5P)
- Voltage Range (V) 2.5~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 8000
- Energy Density (Wh/L) 394

BATTERY CELL

High Energy Density

Long Cycle Life

Pouch & Cylindrical Cells

High Consistency

High Safety

50Ah



13.5*325*108 (mm)

- Chemical System LFP
- Product Type Pouch
- Weight (kg) 0.93
- Nominal Capacity (Ah) 50 (0.5C)
- Voltage Range (V) 2.3~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 6000
- Energy Density (Wh/L) 338

23.2Ah



8.55*304*92 (mm)

- Chemical System LFP
- Product Type Pouch
- Weight (kg) 0.48
- Nominal Capacity (Ah) 23.2 (1C)
- Voltage Range (V) 2.3~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 4000
- Energy Density (Wh/L) 310

4.2Ah



21.6*71.2 (mm)

- Chemical System NCM
- Product Type Cylindrical
- Weight (kg) 0.068
- Nominal Capacity (Ah) 4.2 (0.2C)
- Voltage Range (V) 2.75-4.2
- Nominal Voltage (V) 3.6
- Cycle Life (Cycles) 800
- Energy Density (Wh/L) 580

65Ah



13.8*355*123 (mm)

- Chemical System LFP
- Product Type Pouch
- Weight (kg) 1.19
- Nominal Capacity (Ah) 65 (0.5C)
- Voltage Range (V) 2.3~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 6000
- Energy Density (Wh/L) 345

40Ah



8.45*322*129 (mm)

- Chemical System LFP
- Product Type Pouch
- Weight (kg) 0.72
- Nominal Capacity (Ah) 40 (0.5C)
- Voltage Range (V) 2.0~3.65
- Nominal Voltage (V) 3.2
- Cycle Life (Cycles) 2000
- Energy Density (Wh/L) 365

5.0Ah



21.6*71.2 (mm)

- Chemical System NCM
- Product Type Cylindrical
- Weight (kg) 0.069
- Nominal Capacity (Ah) 5.0 (0.2C)
- Voltage Range (V) 2.75-4.2
- Nominal Voltage (V) 3.6
- Cycle Life (Cycles) 800
- Energy Density (Wh/L) 690



RESIDENTIAL BESS

RN-LV-BG
Wall Mounted



Capacity 2.56-10.24 KWh
Cell 106/325 Ah
Voltage 25.6/48/51.2 V

RN-LV-GL
Rollers



Capacity 10.4-16.4 KWh
Cell 222/325 Ah
Voltage 48/51.2 V

RN-LV-JJ
Rack



Capacity 4.8-10.24 KWh
Cell 106 Ah
Voltage 48/51.2 V

RN-LV-DD
Stacking



Capacity 5.12-20.8 KWh
Cell 100 Ah
Voltage 51.2 V

AJ-HV-DD
Stacking (HV)



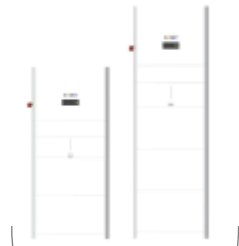
Capacity 10-30.6 KWh
Cell 50 Ah
Voltage 204~614 V

AJ-LV-YT
All-In-One (LV)



Capacity 5.3~31.8 KWh
Cell 106 Ah
Voltage 51.2 V

AJ-HV-YT
All-In-One (HV)



Capacity 10-30 KWh
Cell 50 Ah
Voltage 120-875 V

AS-LV-YT
All-In-One (LV)



Capacity 6.6~19.8 KWh
Cell 65 Ah
Voltage 51.2 V

RN-LV-YT
All-In-One (LV)



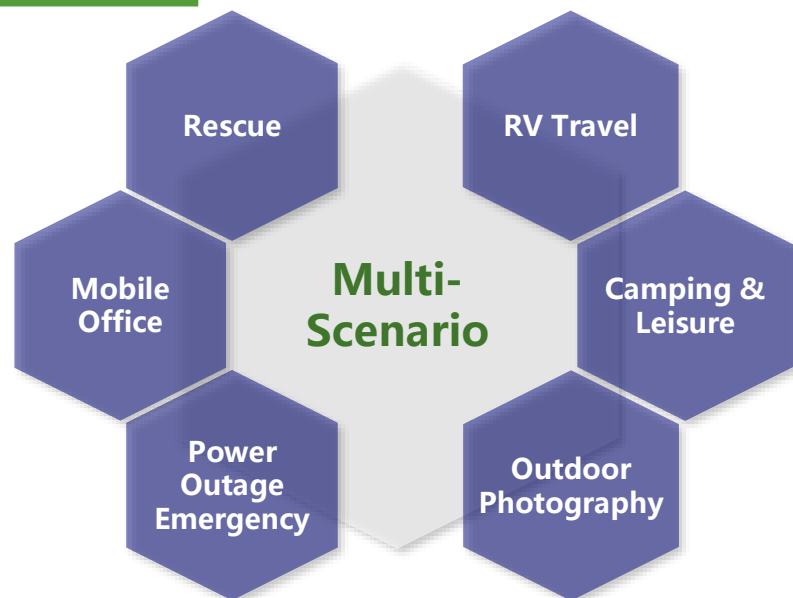
Capacity 5-20 KWh
Cell 106 Ah
Voltage 51.2 V

"Blade 1"
Ultra Slim ESS
New!



Capacity 4.7/9.4 KWh
Cell 184 Ah
Voltage 25.6/51.2 V

PORTABLE BESS



Power	Capacity	Weight
300_w	302_{Wh}	3.4_{kg}
Power	Capacity	Weight
1000_w	1088_{Wh}	11.2_{kg}

KP-BX-2000
Trolley Portable



Power	2000 W
Capacity	2.3 KWh
Weight	28.5 kg

Customizable
Co-branded model



Power	1000 W
Capacity	0.6/1 KWh
Weight	8/12 kg



C&I BESS

RN-100
100kWh Power
All-in-One



Capacity	100 KWh
Cell	106 Ah
AC Output	400 V

FC-100
200kWh Power
All-in-One



Capacity	200 KWh
Cell	280 Ah
AC Output	400 V

RN-200
215kWh Power
All-in-One



Capacity	215 KWh
Cell	280 Ah
AC Output	400 V

RN-35, RN-50
35/50kWh
ES Cabinets



Capacity	35.8/51.2 KWh
Cell	106 Ah
Voltage	358.4/512 V

FC-318
318kWh
ES Cabinets



Capacity	318 KWh
Cell	222 Ah
Voltage	716 V

FC-639
639kWh
ES Cabinets



Capacity	564-639.KWh
Cell	280 Ah
Voltage	672/716/761 V

CTR
Design

Component -36%
Straight cost -10%

Land
Saving

occupy <1.35m²/unit

"Blade 2"
Liquid-cooled ESS
New!



Capacity	268kWh
Cell	350Ah
Voltage	768V

Double-sided
liquid-cooled

Double sided liquid cooling
doubles the contact area
and increases cycle life
> 15%

Intellectualize

Support multi-scenario demand response
to improve system utilization
6%



UTILITY BESS

3.01MWh(1P)

Capacity	3010 KWh
Cell	200 Ah
Voltage	1254 V

3.34MWh(0.5P)

Capacity	3341 KWh
Cell	222 Ah
Voltage	1254 V

3.46MWh(0.5P)

Capacity	3461 KWh
Cell	325 Ah
Voltage	1331 V

5MWh(0.5P)

Capacity	5160/5016 KWh
Cell	350/314 Ah
Voltage	1228/1331 V

New! 6.9MWh(0.5P)

Capacity	6899 KWh
Cell	350 Ah
Voltage	1232 V



SVOLT Redefines Energy Storage Products with Automotive-Grade Standards

- Lower costs
- Safer cell structure
- Higher manufacturing efficiency
- Better consistency
- More stable delivery capability

COLD PLATE
With Exhaust Channels

Short Blade Battery Cell



UTILITY BESS

3.01MWh-1P

3.34MWh-0.5P

3.46MWh-0.5P



7250*2896*2638



6600*2896*2638



6058*2896*2438

		mm	mm	mm
Cells	Cell Capacity	200 Ah	222 Ah	325Ah/310Ah
	Cycle life	≥8000 cycles@70%SOH	≥8000 cycles @70%SOH	≥9000/12000 cycles@70%SOH
Systems	Series-Parallel Connection	1P392S*12	1P392S*12	1P416S*8
	Nominal Energy	3010kWh	3341kWh	3461kWh/3300kWh
	Output Voltage	1254.4V DC	1254.4V DC	1331.2V DC
	Nominal charge/discharge ratio	≤1P	≤0.5P	≤0.5P
	Protection Grade	IP54	IP54	IP55
	Weight	35t	35t	34 t
	Anti-corrosion, dirt level	C3、Level II	C3、Level II	C4、Level II
	Allowable maximum altitude	≤3000m (non-degradable)	≤3000m (non-degradable)	≤3000m (non-degradable)
	System noise	≤85dB @1m	≤75dB @1m	≤75dB@1m
	Temperature range	-30℃~45℃	-30℃~45℃	-30℃~45℃
Humidity range	5~95%, non-condensing	5~95%, non-condensing	5~95%, non-condensing	



UTILITY BESS

5MWh-0.5P (350Ah)



6058*3100*2438 mm

5MWh-0.5P (314Ah)



6058*2896*2438 mm

6.9MWh-0.5P



6058*3100*2524 mm

New!

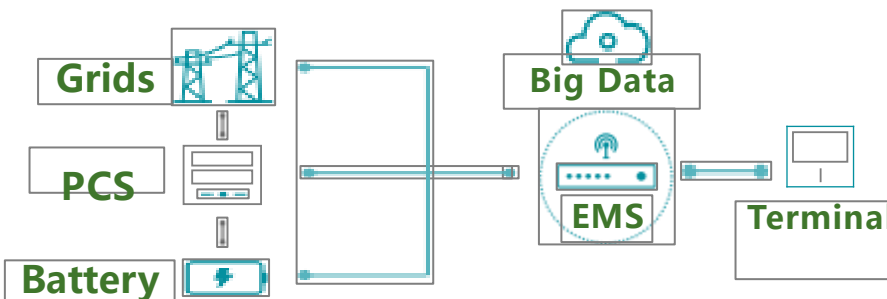
Cells	Cell Capacity	350 Ah	314Ah	350 Ah
	Cycle life	≥8000cycles@70%SOH	≥8000cycles@70%SOH	≥8000cycles@70%SOH
Systems	Series-Parallel Connection	1P384S*12	1P416S*12	1P385S*16
	Nominal Energy	5160kWh	5016kWh	6899kWh
	Output Voltage	1228.8V DC	1331.2V DC	1232V DC
	Nominal charge/discharge ratio	≤0.5P	≤0.5P	≤0.5P
	Protection Grade	IP55	IP55	IP55
	Weight	43t	42t	63t
	Anti-corrosion, dirt level	C4/C5 optional、Grade II	C4/C5 optional、Grade II	C4/C5 optional、Grade II
	Allowable maximum altitude	≤3000m	≤3000m	≤3000m
	System noise	≤80dB @1m	≤80dB @1m	≤85dB @1m
	Temperature range	-30℃~55℃	-30℃~55℃	-30℃~55℃
Humidity range	0~100%, No condensing	0~100%, condensing	0~100%, condensing	





INTELLIGENT APPLICATIONS

- Energy storage equipment and "source - network - load - storage" integrated coordination management center;
- Hardware passes FCC/CE/EMC level 4 certification, with ms-level response;
- Integration of SuperBMS, which can guarantee system safety, improve operation efficiency, extend service life, reduce operation and maintenance costs, and provide micro-grid control, multi-energy complementary energy management and other functions.



SVOLT-EMS



Control Strategy

- Provide energy management strategies such as microgrid control, photovoltaic, storage and charging integration, multi-energy complementary, virtual power plant, etc.

EMS Master Controller

- Based on embedded ARM kernel and LINUX operating system, high efficiency and stability.
- Industrial-grade hardware, EMC level 4 certification and LVD, FCC, CE certification.
- Ms-level response.

Operation & Maintenance

- Support remote commissioning, remote program upgrade and maintenance

Edge Design Capabilities

- Support remote commissioning, remote program upgrade and maintenance, Remote control strategy optimization and configuration, significantly reducing operation and maintenance costs

Early Warning Algorithm

- Built-in advanced safety warning algorithms to realize the goals of safeguarding system safety, improving efficiency, and extending system life to protect the safe operation of the energy storage system

Complete record of all data

- Realize complete record of operation status and data through local and cloud, provide support for big data analysis and prediction.

INTELLIGENT APPLICATIONS



ESS Warning Integrator

20MWH energy storage hardware specification parameters

CPU	16 cores, 2.4GHz
Memory	32G, DDR4
Hard Disk	480G, SSD
Network Card	Onboard Dual-Port Gigabit LAN
Power Supply	550W Dual Power Supply



Operation & Maintenance

- With the support of data security warning and life assessment services, intelligent management and operation and maintenance of energy storage systems can be realized without investing a lot of manpower and material resources.

Lifetime Assessment

- Deeply explore the value of data to accurately assess battery life.

Safety Alerts

- Built-in safety warning algorithm realizes the goals of ensuring system safety, improving efficiency and extending system life, and protects the safe operation of the energy storage system.

Data Aggregation

- Integrates data collection, communication management, data processing, and strategy execution to provide real-time operation data monitoring, querying, and management functions.

Strong Compatibility

- Supports the configuration of energy storage stations at different system levels.

Log Management

- Real-time monitoring records and analyzes various events and data of the equipment operation, including the start, stop, and abnormal status of the equipment, helping users to better understand the operation status and performance of the equipment.

SVOLT-Cloud

>96%
Early warning accuracy

>10GWh
Energy storage systems monitored



Smart Energy Storage

Monitoring and Warning

Intelligent Operation and Maintenance

Virtual Power Plant

Clean Energy

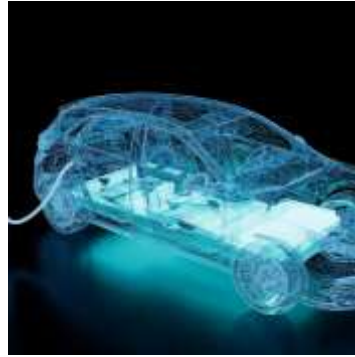
Flexible Dispatch

Improve Efficiency

Reduce Emissions



Passenger Vehicle Solutions and Products



Innovative Energy Solutions

Our company focuses on developing cutting-edge energy solutions to improve the efficiency of passenger vehicles.



Performance Enhancement

We enhance vehicle performance through advanced energy technologies that contribute to better driving experiences.



Sustainability in Automotive

Our solutions prioritize sustainability, reducing the environmental impact of passenger vehicles without compromising quality.



Commercial Application Solutions

Powering Commercial Vehicles with Precision Our commercial vehicle battery products are designed to deliver exceptional performance and adaptability across applications such as logistics vehicles, heavy trucks, and construction machinery. Key features include:

- **Highly Safe and Reliable:** Built with industry-leading safety standards.
- **High Energy Efficiency:** Ensures optimal performance and energy utilization.
- **Economic Viability:** Cost-effective solutions tailored for long-term use.
- **Durability and Longevity:** High cycle life and extended lifespan for demanding applications.
- **Scalable Capacity:** Reserve upgrade options for evolving needs.

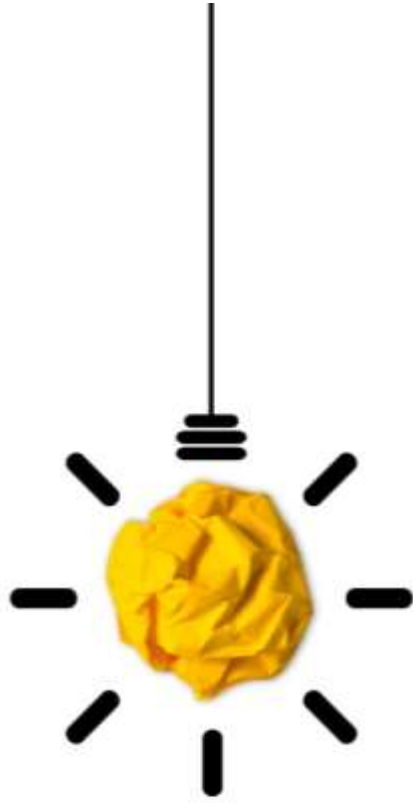
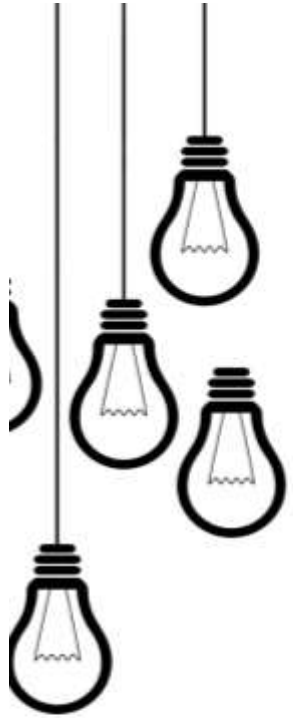


Energy Storage Application Solutions

- **Comprehensive Energy Storage for All Needs** We provide a full-stack solution for energy storage, addressing diverse requirements through cutting-edge technologies:
- **325Ah Specialized Cells:** Designed for electric energy storage with enhanced safety and long lifecycle.
- **350Ah Specialized Cells:** High-performance cells tailored for large-scale storage needs.
- **730Ah Specialized Cells:** Ideal for household energy storage with robust reliability.

Our solutions integrate seamlessly with various energy sources, including photovoltaic, wind power, and grid dispatch systems.





Customizable Solutions

- Tailored to Your Needs OES specializes in designing and delivering solutions that cater to the unique demands of each client and project:
- Integration with Renewable Energy Sources: Seamless compatibility with solar, wind, and other renewable energy systems.
- Adaptability Across Sectors: From industrial and commercial applications to residential and portable energy systems, our services are versatile and scalable.
- Future-Ready Designs: Solutions built to accommodate evolving energy requirements and emerging technologies.



Connecting with Optimal Energy Solutions



Partnership Opportunities



Seeking New Partnerships

We are actively looking for new partnerships that align with our mission to enhance sustainability.



Aligning with Our Mission

Our focus is on collaborations that resonate with our goal of promoting sustainable energy solutions.



Creating Sustainable Solutions

Together, we can innovate and develop energy solutions that are sustainable and beneficial for the environment.



Contact Information

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Stay Connected with Us

Discover the latest updates, expert insights, and cutting-edge innovations. Follow us on social media to stay inspired and informed about our journey in shaping a sustainable energy future.

