

VOLT
STATION



Energy Storage

Scalable storage solutions for modern energy demands.



ABOUT US

Valor Power delivers the next generation of clean, resilient energy infrastructure through **Volt Station**, our modular, grid-ready platform for electrification. Our vision is to accelerate a future where businesses, fleets, and communities can access reliable, low-carbon power anywhere it's needed.

We're driven by core values of **engineering excellence, transparency, sustainability, and client empowerment**—ensuring every solution is bankable, scalable, and built for real-world performance.

Our product line includes **Volt Station mobile and fixed power units, battery-energy storage systems, and integrated renewable-ready charging solutions**, giving clients a flexible pathway to electrify operations with confidence.

All Volt Station energy storage and EV charger products are fully certified by **TÜV SÜD** meeting Europe's strictest safety and quality standards.



A comprehensive TÜV certification that reinforces our commitment to reliable, safe, and globally trusted ESS solutions.

Certified to **UL9540A**, demonstrating Valor Powers uncompromising commitment to battery safety.



UL 9540A

A rigorous fire-safety evaluation that validates the stability and reliability of our ESS under extreme conditions.

Fully **CE-certified** to meet essential EU safety, health, and environmental protection standards.



Ensuring our energy storage and EV charger solutions comply with Europe's stringent regulatory requirements for safe market entry.

Volt Station

Hybrid Air-cooled

VS-50-64

Description

The system is a compact, plug-and-play building-energy-storage module designed primarily to cut site energy use through load-shifting, peak-shaving, and resilience support. It includes integrated satellite connectivity for always-on remote management, full software control across all subsystems, supports grid boosted EV charging and comes in a robust enclosure with built-in fire suppression for safe, dependable operation in any environment.



Features



Economical & Efficient

RTE up to 87%, DOD up to 100%



Safe & Reliable

IP55, optimized ventilation design, temperature difference within 6°C



Compact & Convenient

0.96m² footprint, easy to transport and install.



Expandable & Modular

Modular design supports parallel connection for convenient system expansion.



Satellite Connectivity

Satellite internet connection allows connectivity no matter how remote your location



PV integration

Support PV connection, with higher integration



Full Energy Management System

Full system architecture incorporates all your business, existing loads, PV and EV vehicles



Easy O&M

Support multiple ways of operation and maintenance, including onsite, cloud

Specification

Battery Cabinet

Cell Type	LFP /120 Ah
Pack Configuration	9.216 kWh / 1P24S
System Configuration	64.512 kWh / 1P168S
Rated DC Voltage	537.6 V
DC Voltage Range	470.4 ~ 604.8 V
Max. Charge/Discharge Rate	0.8 P
Max. Depth of Discharge	100% (25 ± 2)

PV Input

Max. input power	37.5kW	45kW	54kW	60kW	75kW
PV Voltage Range	200V~850V				
MPPT	4				
MAX. Input Current	30A*4				

AC Side

Rated Output Power	25kW	30kW	36kW	40kW	50kW
Rated AC Voltage	400 V				
AC Voltage Range	±15%				
Grid Type	3W+N+PE				
Rated Frequency	50 Hz / 60 Hz				
Power Factor	0.99/ -1 ~ +1				
THDi	≤3%				
DC Ratio	<0.5% Ipn				

General

Max. Round Trip Efficiency	87%
Cycle Life	≥ 5,500 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol
Ingress Rating	IP55
Cooling	Air cooling
Operating Temperature	-25 ~55 (Derating after 45)
Anticorrosion Rating	C4 (C5 optional)
Humidity	0~95% RH (non-condensing)
Altitude	3000m (Derating above 2000m)
Dimensions (W*D*H)	800*1,200*2,030 mm
Weight	1,000 kg
Safety/EMC	UN38.3, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4
Grid code	EN50549-1/-10, EN50549-2/-10, G99, VDE4105, NRS097, C10/11
Warranty	5 Years

Volt Station Hybrid Air-cooled

VS-125/261

Description

The system is a compact, plug-and-play building-energy-storage module designed primarily to cut site energy use through load-shifting, peak-shaving, and resilience support. It includes integrated satellite connectivity for always-on remote management, full software control across all subsystems, supports grid boosted EV charging and comes in a robust enclosure with built-in fire suppression for safe, dependable operation in any environment.



UL 9540A



Features



Economical & Efficient

RTE up to 89%, DOD up to 100%



Safe & Reliable

IP55, optimized ventilation design, temperature difference within 3°C



Compact & Convenient

0.96m² footprint, easy to transport and install.



Expandable & Modular

Modular design supports parallel connection for convenient system expansion.



Satellite Connectivity

Satellite internet connection allows connectivity no matter how remote your location



PV integration

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Specification

Battery Cabinet

Cell Type	LFP /314 Ah
Pack Configuration	52.2 kWh / 1P52S
System Configuration	64.512 kWh / 1P260S
Rated DC Voltage	832 V
DC Voltage Range	728 ~ 936 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2)

AC Side

Rated Output Power	125kW
Rated AC Voltage	400 V
AC Voltage Range	±15%
Grid Type	3W+N+PE
Rated Frequency	50 Hz / 60 Hz
Power Factor	0.99/ -1 ~ +1
THDi	≤3%
DC Ratio	<0.5% Ipn

General

Max. Round Trip Efficiency	89%
Cycle Life	≥ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol
Ingress Rating	IP55
Cooling	Liquid cooling + Forced air cooling
Operating Temperature	-25 ~55 (Derating after 45)
Anticorrosion Rating	C4 (C5 optional)
Humidity	0~95% RH (non-condensing)
Altitude	3000m (Derating above 2000m)
Dimensions (W*D*H)	1050*1,350*2,400 mm
Weight	2,600 kg
Safety/EMC	UN38.3, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4, UL9540A, EN50549-1/-10, EN50549-2/-10, G99, VDE4105, NRS097, C10/11, CEIO-21,
Grid code	CEIO-16
Warranty	5 Years
Satellite Connectivity	Starlink
EMS	Yes

Volt Station Static Transfer Switch

VS-500 STS

Description

The Volt Station STS is a seamless on/off-grid switching cabinet designed for the Volt Station to switch within 20ms. It enables on/off-grid switching for single or multiple parallel-connected applications. Equipped with reserved ports for PV inverter power and critical loads connection, allowing for the normal operation of PV system and loads in grid outage conditions.



Features



Economical & Efficient

Small form factor and affordability for on and off grid application



Safe & Reliable

IP54, optimised ventilation design,



Compact & Convenient

Small footprint, easy to transport and install



Expandable & Modular

Modular design supports parallel connection for convenient system expansion.



Satellite Connectivity

Satellite internet connection allows connectivity no matter how remote your location



PV integration

Support PV connection, with higher integration



Full Energy Management System

Full system architecture incorporates all your business, existing loads, PV and EV vehicles



Easy O&M

Support multiple ways of operation and maintenance, including onsite, cloud

Specification

Grid Side Parameters

No. of Grid Connection Port	1
Max. Grid Current	1600A
Grid Voltage Range	400V±15%
Grid Type	3W+N+PE
Rated Frequency	50/60Hz
On/off-grid Switching Time	20ms

PV Input Requirements

Max. PV&Loads Port Current	800A
Recommended Max. PV Power	550kW
Recommended Max. Load Power	70% x ESS Power

Auxiliary Equipment

UPS	Standard
Maintenance Socket	Standard, 16A
Surge Protection	AC Type II
Meter Accuracy	0.5S

General Parameters

Dimension(W×D×H)	1200×1200×2200 mm
Altitude	3000m
Ambient Temperature	-15°C~45°C
Humidity	0~95%RH (non-condensing)
Cooling Method	Air cooling
IP Rating	IP54
Communication	RS485, Modbus TCP/IP

Volt Station All-in-one Liquid-cooled

VS-1000/2170



Description

Innovative 400 V all-in-one container solution integrates PCS, EMS, BMS, cooling and fire suppression systems, AC combiner cabinet, and other essential components. The highly integrated system, combined with high-quality 314 Ah battery cells, delivers higher energy density in a compact footprint. Its efficient hybrid cooling system ensures stable operation, keeping cell temperature differences within 3 °C. Designed in a standard 20 ft container, the solution allows easy transportation, rapid installation, and flexible deployment



UL 9540A



Features



Economical & Efficient

RTE up to 89%, DOD up to 100%



Safe & Reliable

P55, optimized ventilation design, temperature difference within 3°C



Compact & Convenient

Easy to transport and install.



Expandable & Modular

Modular design supports parallel connection for convenient system expansion.



Satellite Connectivity

Satellite internet connection allows connectivity no matter how remote your location



PV integration

Support PV connection, with higher integration



Full Energy Management System

Full system architecture incorporates all your business, existing loads, PV and EV vehicles



Easy O&M

Support multiple ways of operation and maintenance, including onsite, cloud

Specification

DC Side

Cell Type	LFP /314 Ah
Pack Configuration	48.2 kWh / 1P48S
System Configuration	2170 kWh / 9P240S
Rated DC Voltage	768 V
DC Voltage Range	672 ~ 864 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2)

AC Side

Rated Output Power	1000kW
Rated AC Voltage	400 V
AC Voltage Range	±15%
Grid Type	3W+N+PE
Rated Frequency	50 Hz / 60 Hz
Power Factor	0.99/ -1 ~ +1
THDi	≤3%
DC Ratio	< 0.5% I _{pn}

General

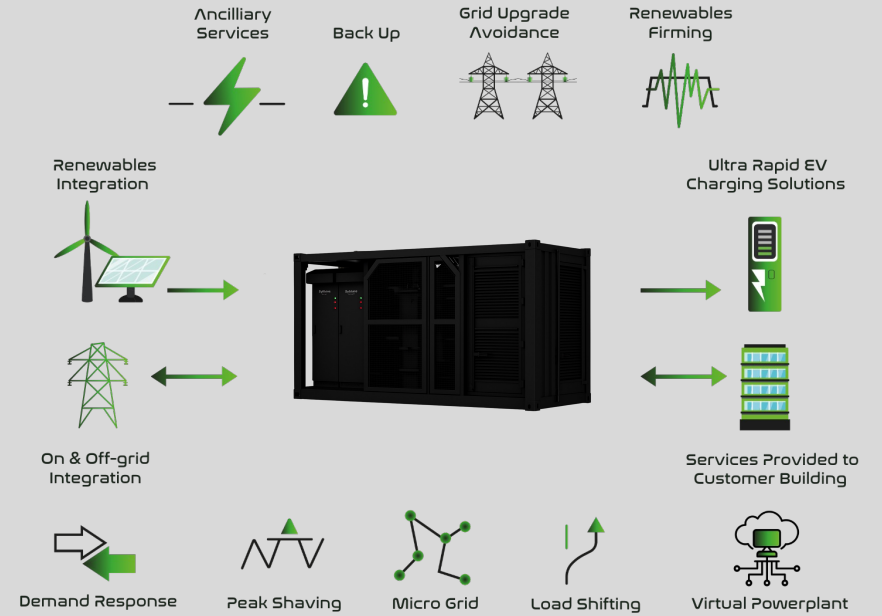
Max. Round Trip Efficiency	89%
Cycle Life	≥ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol system + water spray system
Ingress Rating	IP55
Cooling	Liquid cooling + Forced air cooling
Operating Temperature	-25 ~55 (Derating after 45)
Anticorrosion Rating	C4 (C5 optional)
Humidity	0~95% RH (non-condensing)
Noise	≤ 80 dB
Altitude	3000m (Derating above 2000m)
Dimensions (W*D*H)	6,058*2,434*2,591 mm
Weight	28T
Safety/EMC	UN3536, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4, UL9540A, IEC62933-5-2
Grid code	EN50549-1/-10, EN50549-2/-10, G99, VDE4105, NRS097, C10/11, CEIO-21, CEIO-16
Warranty	5 Years (performance warranty to 8,000 cycles)
Satellite Connectivity	Starlink
EMS	Yes

Volt Station All-in-one Inverter Substation

VS-2500MVS



Applications



Description

Prefabricated Inverter substation for 0.25C and 0.5C applications. LVRT and HVRT. Islanding and black start, 4-quadrant active and reactive power. Response under 20ms.

Features



Economical & Efficient

Higher energy density in small form factor delivering reduced costs



Safe & Reliable

IP55, C5 corrosion rating external components, optimized ventilation design



Compact & Convenient

Easy to transport and install.



Expandable & Modular

Modular design supports parallel connection for convenient system expansion.



Satellite Connectivity

Satellite internet connection allows connectivity no matter how remote your location



Long Service Life

Enhanced cell temperature consistency extends battery life, increases safety, and improves return on investment.



Full Energy Management System

Full system architecture incorporates all your business, existing loads, PV and EV vehicles



Easy O&M

Support multiple ways of operation and maintenance, including onsite, cloud



Frequency Regulation

Providing initial excitation and voltage reference to reboot the grid and restart power plants after a total system blackout



Peak Shaving

Balancing grid loads by storing low-cost off-peak energy and discharging during peak demand to optimise infrastructure utilisation



Renewable Integration

Smoothing the volatility of solar and wind power to minimize curtailment and ensure a stable, dispatchable green energy supply



Black Start & Grid forming

Providing initial excitation and voltage reference to reboot the grid and restart power plants after a total system blackout

Specification

AC and DC Parameters

Rated Power	2500kVA
AC Voltage	10kV-33kV (other voltages available)
AC Frequency	50Hz
DC Voltage Range	1040-1500V
Number of DC Bus	1/2 (Based on PCS branches)
Maximum Current per branch	2404A/1202A
THDi/THDu	<3%

Auxiliary Equipment

Aux Transformer	150kVA 690V/400V 50Hz 3P4W
UPS	Up to 2kVA (1h standard)
Meter	Meters for auxiliary consumption and PCS
Communication method	RS485 CAN TCP/IP
Cooling method	Temperature controlled forced air cooling

Connection and Protection

Switchgear Configuration	DeV/CV/CCV (can be customised)
Switchgear Protection	MV vacuum circuit breaker
Internal Arc Classification Medium-Voltage Control Room (according to IEC 62271-202)	20kA 3s
LV-MV Connections	Copper bar or cable
LV Protection	Motorised CB in PCS
MV Protection	Microcomputer protection
DC Protection	Circuit breaker and fuses

Transformer

Capacity	2650kVA @45 °C
Transformer Type	Oil-immersed transformer
Transformer Protection	Protection relay for pressure, temparture (two levels) and gas
Winding Vector Group	Dy11 (can be customised)
MV AC Voltage	12/24/36kV (can be customised)
LV AC Voltage	690V (can be customised)
AC Frequency	50Hz
Efficiency	Tier 2 (from EU548)
Transformer Impedance	7%-8%
Cooling type	ONAN
Insulation Level	Class A

Connection and Protection

Size	6058mm length, 2896mm height, 2438mm width
Weight	≤20t
Enclosure	IP55 for Overall (IP68 for Transformer; IP65 for PCS)
Corrosion Prevention	C5 (Only applicable to external mechanical part)
PCS cooling Method	Air Cooling
Operating Temp.	-40 °C to 60 °C (De-rating over 45 °C)
Storage Temp.	-50 °C to 70 °C
Operating Humidity	0~95% (No condensing)
Storage Humidity	0~100%(No condensing)
Max Elevation	Standard 1000 m (can be customised)
Inverter Max. Efficiency	98.40%
Voltage Regulation Accuracy	≤±1%
Current Regulation Accuracy	≤±1%

Certification

Certification	IEC62477/IEC61000/G99/VDE4110/EN50549-2/IEC60076/IEC62271 (more available on request)
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Volt Station Liquid Cooled Battery Container

VS-2500/5015



Specification

General

Cell Type	LFP /314 Ah
Pack Configuration	104.5 kWh / 1P104S
System Configuration	5015 kWh / 12P416S
Rated DC Voltage	1331.2 V
DC Voltage Range	1165 ~ 1498 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2 °C)
Cycle Life	≥ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol system + water spray system
Ingress Rating	IP55
Cooling	Liquid cooling + Forced air cooling
Operating Temperature	-25°C~55°C (Derating after 45°C)
Anticorrosion Rating	C4 (C5 optional)
Humidity	0~95% RH (non-condensing)
Altitude	3000m (Derating above 2000m)
Dimensions (W*D*H)	6,058*2,438*2,896 mm
Weight	41.8T
Safety/EMC	UN3536, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4, UL9540A, IEC62933-5-2
Warranty	5 Years (performance warranty to 8,000 cycles)
Satellite Connectivity	Starlink
EMS	Yes

Description

The 20-ft liquid-cooled ESS container integrates EMS, BMS, HVAC, and fire suppression system (FSS) into a single container. Designed for demanding applications, the 20-ft liquid-cooled ESS container is suitable for power generation, grid, and commercial & industrial (C&I) ESS scenarios that require high power and flexible capacity.



UL 9540A



Features



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Full Energy Management System

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Easy O&M

Support multiple ways of operation and maintenance, including onsite, cloud

Ready to power your future?

Contact us today to learn how Volt Station can be customised to fit your specific energy and charging needs.

Contact Us
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 **Valor Power**

