SOLVA

TECHNICAL BROCHURE



freedom
WON

The SOLVA Range

208kWh

SOLVA DC208

Flexible DC-Coupled Architecture

- External inverter compatibility
- Scale with inverter AC parallel
- DC parallel up to 12



418kWh

SOLVA AC418

Integrated 690VAC PCS Architecture

- AC bus parallel capability
- Larger scale cabinet deployment
- Use with MV step-up transformer



SOLVA DC418

High-Voltage DC-Coupled Architecture

- Larger scale cabinet deployment
- External inverter compatibility
- DC parallel up to 12



261kWh

SOLVA AC261

Integrated PCS Architecture

- AC Bus parallel capability
- Simplified deployment
- Optional STS



SOLVA DC261

Flexible DC-Coupled Architecture

- External inverter compatibility
- Scale with inverter AC parallel
- DC parallel up to 12



SOLVA RT261

Dual Conversion Architecture

- Independent grid-based charging
- Isolated load Bus
- Protects against poor grid quality



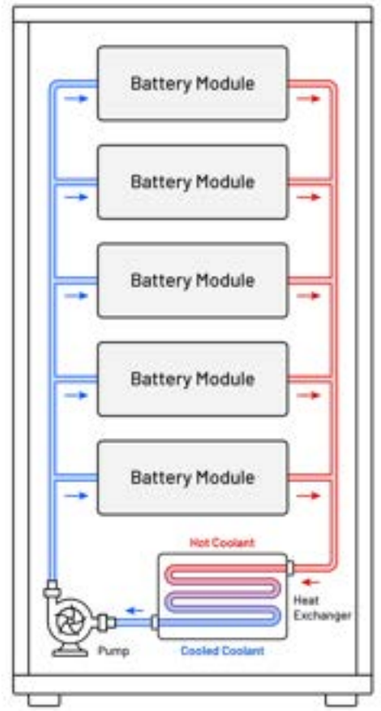
SOLVA Naming Convention

All SOLVA models follow the pattern: [Category] + [Capacity] = Model

Category		Capacity		Model
AC = Alternating Current **DC** = Direct Current **RT** = Rectifier	+	**261** = 261kWh **418** = 418kWh	=	AC261 / AC418 DC208 /DC261 / DC418 RT261

Advanced Thermal Management

All **SOLVA** models incorporate active liquid thermal management to maintain stable battery operating temperatures across varying environmental and load conditions.



Thermal Management Features:

- Integrated liquid cooling system
- Integrated liquid heating system
- Intelligent temperature regulation of battery and PCS

Feature	System Benefit
Stable operating temperatures	**Improved reliability** Cells kept within optimal temperature range despite extreme external temperatures.
Reduced thermal stress	**Increased battery lifespan** LifePO4 lasts longer when operated at or close to 25°C.
Consistent temperature distribution	**Enhanced performance** Low temperature variation between all cells in the system.
High-load thermal handling	**Heavy-Duty Operation** Cooling allows longer periods at high charge/discharge power.
Cost Saving & Simple Implementation	**Reduced Infrasructure** Eliminates the need for external HVAC systems, shelters, or dedicated housing enclosures.

Safety & Environmental Protection

SOLVA is designed to support demanding operational environments through intelligent thermal management, integrated safety systems and durable enclosure protection.

Risk Mitigation - Separate cabinets mitigates the risk of incidents propagating through the system

Cabinet Management System (CMS) - Monitoring system level safety within the cabinet

Advanced Multi-Level BMS - Real-time monitoring of cell voltage, temperature, and SoC ensures accurate protection and balancing

Enhanced Fire Protection Integrated - Integrated cabinet-level aerosol fire suppression with fire hose adaptor for full water flooding

Immersion Detection - Immersion sensor fitted to monitor for the presence of water in the cabinet

IP55 Protection Rating - Suitable for:

Outdoor installations

Industrial environments

Harsh weather environments

Dust-resistant

C5 Corrosion Protection - Designed for:

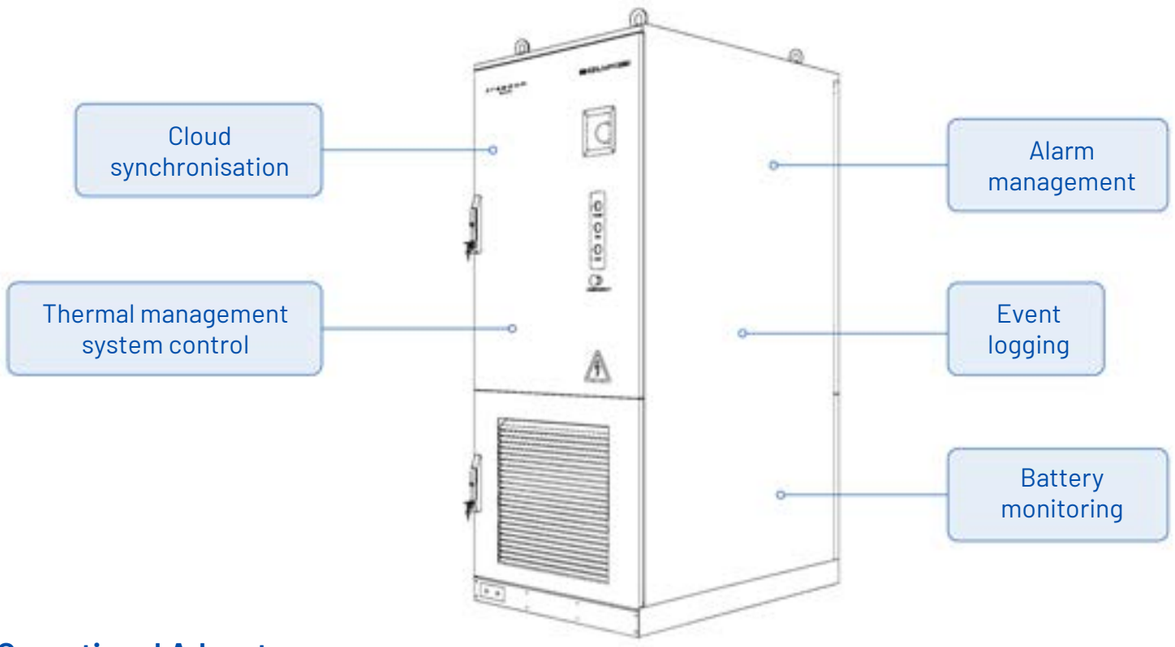
Coastal environments

High-humidity conditions

Intelligent Monitoring & System Control

Integrated monitoring systems provide real-time operational visibility and coordinated system management.

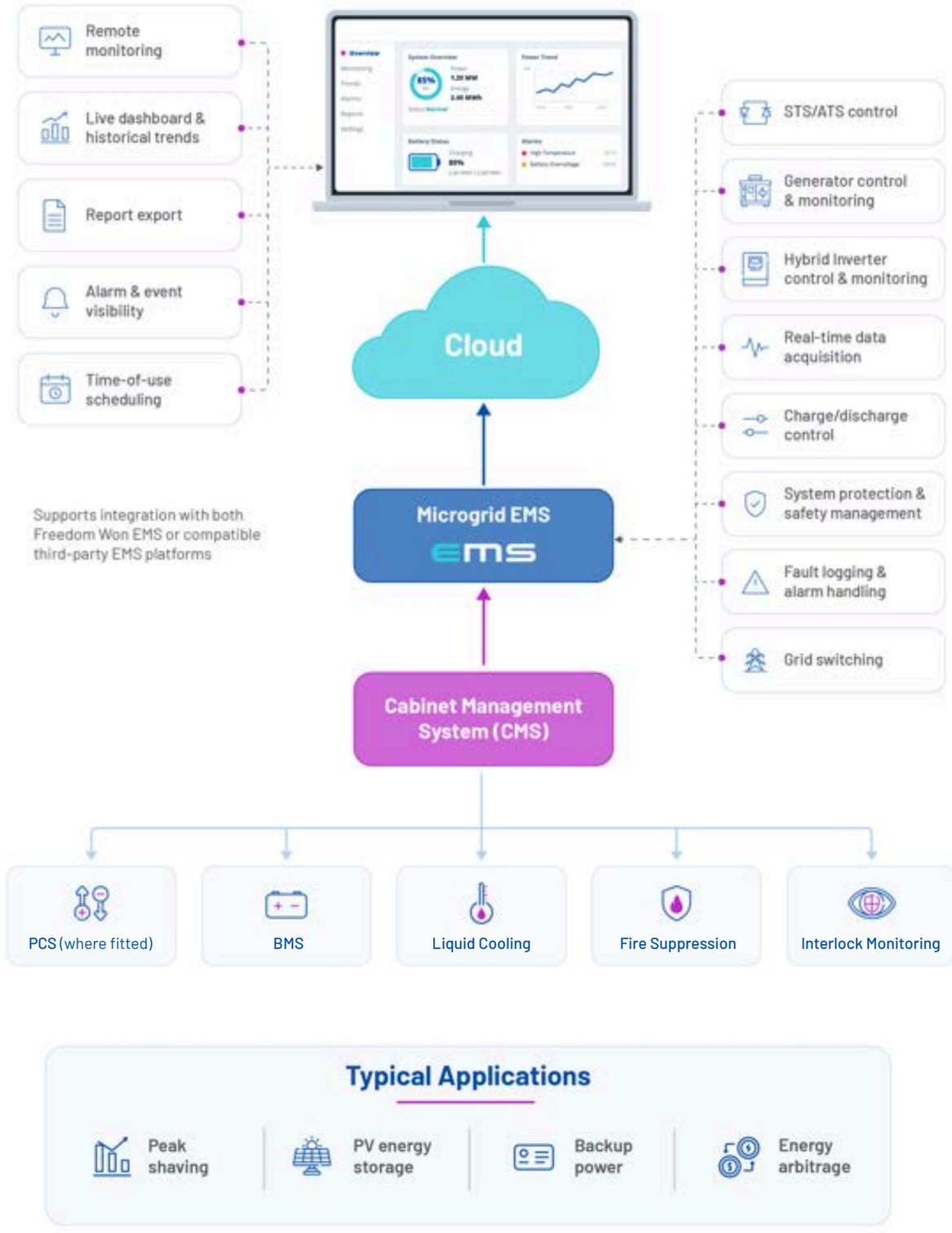
Cabinet Management System (CMS)



Operational Advantages:

- Remote system visibility
- Simplified diagnostics
- Improved maintenance planning
- Enhanced operational control
- EMS integration capability

Interface	Function
RS485	EMS communication
CAN	BMS communication
LAN	Network integration



Typical Applications

Peak shaving | PV energy storage | Backup power | Energy arbitrage

SOLVA AC261

The **Freedom Won SOLVA AC261** combines 261kWh $LiFePO_4$ battery storage, integrated 125kW PCS and intelligent system control, combined into a unified AC-coupled energy storage platform.

Key Features

- Integrated AC-coupled energy storage for rapid commercial deployment
- NRS 097-2-1, AS/NZS 4777.2:2020 certified
- Optional STS for sub 20ms switching

Feature	Advantage
Integrated 125kW PCS	Reduced external integration requirements
Transformerless topology	Lower balance of system cost
Power factor control	Full active and reactive power capability
Parallel scalability	**On-Grid Expansion:** 24 cabinets in parallel; **Off-Grid Expansion:** 6 cabinets in parallel
Robust PCS	Black start capability, built-in VSG, 50% inductive loads



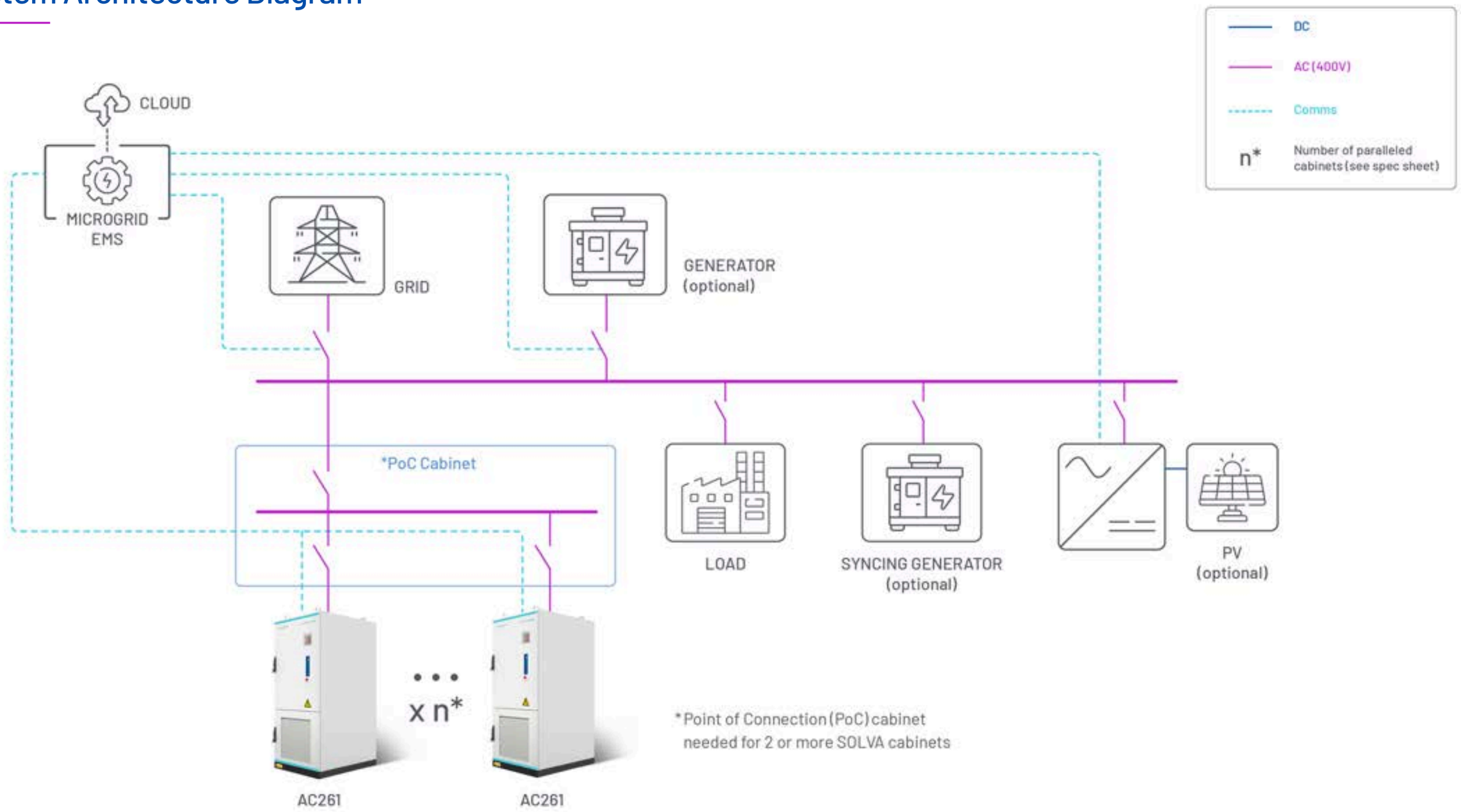
Standards & Certifications:
UN38.3, NRS097-2-1, AS/NZS4777.2 (optional version with: IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4)

Standard Warranty:
5 years (Warranty extension available)

Specifications

DC-SIDE PARAMETERS	
Cell Capacity [Ah]	314
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Total Energy Capacity [kWh]	261
System Depth of Discharge [%]	90
Cycle Life	≥8000 cycles
Nominal Voltage [V]	832
Max/Min. Operating Voltage [V]	936/728
Max. Charge/Discharge Rate	0.5P
Cell Configuration	1P52S per module, 5 modules per pack
Battery Pack Thermal Management System	Liquid Heating and Cooling
Integrated PCS rated power [kW]	125
AC CONNECTION PARAMETERS	
System Output AC Voltage [V]	400
Rated Frequency [Hz]	50/60
Short Circuit Current [A]	450
AC Connection Method	(3P+N+PE) Three-Phase, Four-Wire System
Power Factor Range	Adjustable from 1.0 leading to 1.0 lagging, with full active or reactive power capability
Total Current Harmonic Distortion (THD-I) [%]	<2 (at Rated Power)
Isolation Type	Transformerless
AC Cable Entry	Bottom Entry
LIQUID THERMAL MANAGEMENT	
Max. Auxiliary Power [kW]/Current [A]	2.8/13.4
Max. Cooling Capacity [kW]	5
Max. Heating Capacity [kW]	2
SYSTEM PARAMETERS	
Max. Round Trip Efficiency [%]	89
Dimensions (H×W×D) ±5 [mm]	2400x1050x1350
Weight [Tons]	2.7
Ingress Protection	IP55
Corrosion Protection Class	C4 (C5 optional)
Inverter Thermal Management System	Intelligent Air Cooling
Monitoring and Control	Built-in Cabinet Management System (CMS) interfaces with site EMS for coordinated control, monitoring, and logging of BMS, PCS, and thermal systems. Includes local data storage and cloud synchronisation for remote access.
Communication Interface	RS485 (EMS), CAN (BMS), LAN (Network)
Parallel Configuration	On-Grid mode supports up to 24 cabinets in parallel. Off-Grid mode supports up to 6 cabinets in parallel.
Protection	AC overcurrent protection, AC overvoltage protection, AC short-circuit protection, anti-islanding protection, reverse polarity protection (DC side)
Fire Suppression System	Aerosol and fire hose adaptor for full water flooding
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	-20 to 55
Operating humidity [%]	≤95
Max. Operating Altitude	Full load ≤2000m; >2000m, derate 1%/100m; max 4000m

System Architecture Diagram



Note: The system architecture diagrams presented in this document are indicative only and depict representative site configurations. They do not constitute a design specification. Final system layout, equipment quantities, and electrical arrangements are subject to site assessment, local regulations, and engineering design review.

SOLVA STS

The **Freedom Won SOLVA STS** is a static transfer switch cabinet for SOLVA AC261 systems, enabling near-seamless on/off-grid transfer in less than 20 ms. Integrated switching, UPS, metering, surge protection and control interfaces support continued operation of PV and critical loads during grid outages.

Key Features

- Seamless on/off-grid switching within 20 ms
- Supports 2, 4 or 6 SOLVA AC261 cabinets
- Integrated STS, UPS, metering, protection and communications

Feature	Advantage
Uninterrupted power delivery	<20 ms switching supports critical loads without interruption
Advanced integration	STS, UPS, metering, breakers and surge protection in one cabinet
Flexible scalability	2IN, 4IN and 6IN variants support up to six SOLVA AC261 cabinets
PV and critical-load ports	**Supports continued PV and critical-load operation during grid outages**
Intelligent coordination	Direct PCS communication enables rapid on/off-grid transitions



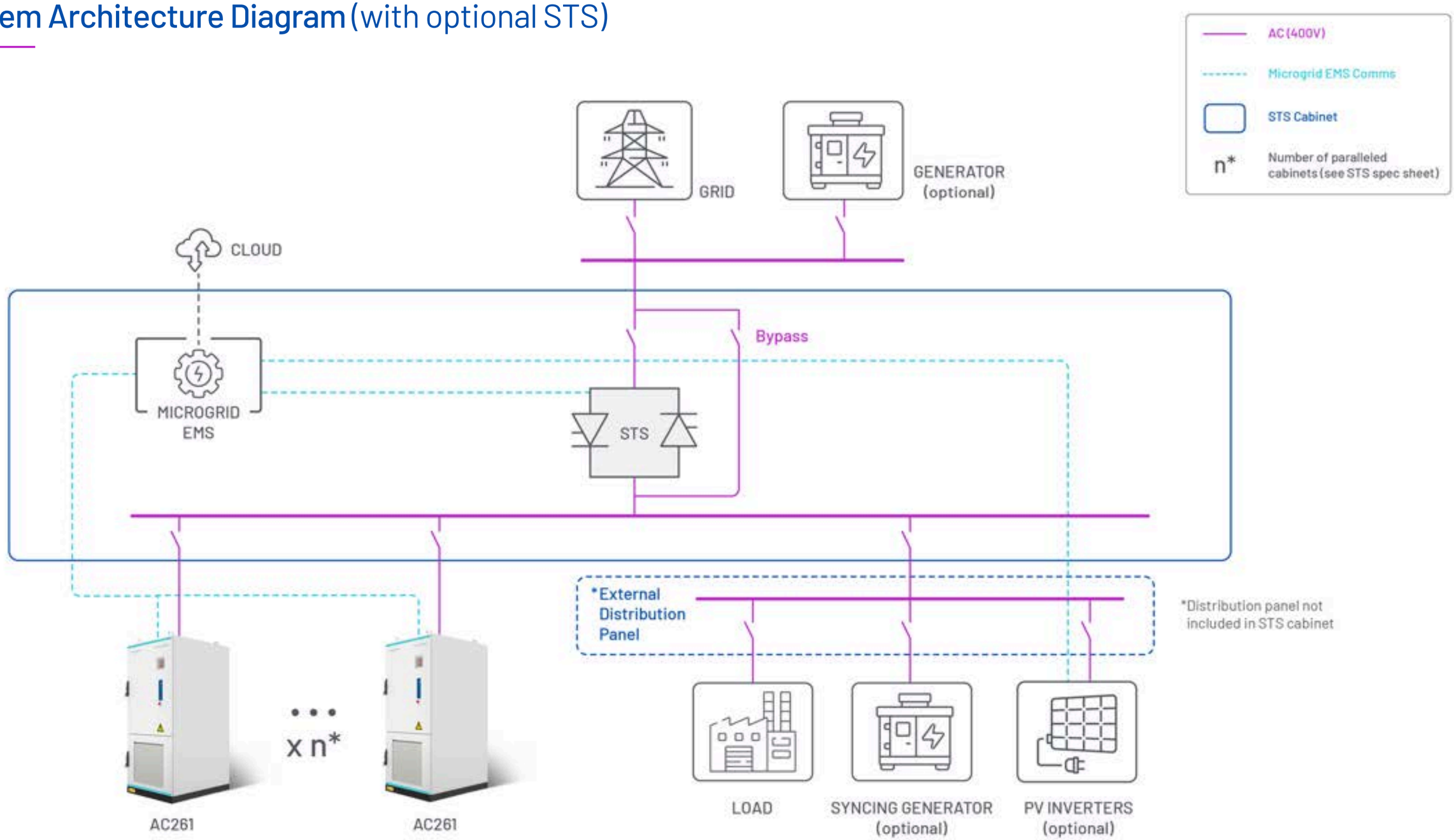
Compatibility:
SOLVA AC261

Standard Warranty:
5 years

Specifications

BESS-SIDE PARAMETERS	SOLVA STS 2IN	SOLVA STS 4IN	SOLVA STS 6IN
Max. No. of SOLVA AC261 Connected	2 units	4 units	6 units
Max. BESS Current [A]	2 x 250A	4 x 250A	6 x 250A
Rated BESS Power [kW]	2 x 125kW	4 x 125kW	6 x 125kW
GRID-SIDE PARAMETERS			
No. of Grid Connection Port	1		
Max. Grid Current [A]	500	800	1600
Grid Voltage Range [V]	400V +/-15%		
Grid Type	3W+N+PE		
Rated Frequency [Hz]	50/60		
On/off-grid Switching Time [ms]	<20		
PV INPUT REQUIREMENTS			
Max. PV & Loads Port Current [A]	250	630	800
Recommended Max. PV Power [kW]	170	430	550
Recommended Max. Load Power	70% x BESS Power		
AUXILIARY EQUIPMENT PARAMETERS			
UPS	Standard		
Maintenance Socket	Standard, 16A		
Surge Protection	AC Type II		
Meter Accuracy	0.5S		
GENERAL PARAMETERS			
Dimensions - W x D x H [mm]	800 x 1200 x 1800	1000 x 1200 x 1800	1200 x 1200 x 2200
Altitude [m]	3000		
Ambient Temperature [°C]	-15 to 45		
Operating Humidity [%]	0 to 95% RH, non-condensing		
Cooling Method	Air cooling		
IP Rating	IP54		
Communication	RS485, Modbus TCP/IP		
GENERAL DATA			
Standard Warranty	5 years		

System Architecture Diagram (with optional STS)



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SOLVA DC208

The **Freedom Won SOLVA DC208** is a high-voltage DC-coupled energy storage cabinet designed for integration with central inverter systems.

Its integrated DC busbar configuration supports scalable system expansion, flexible inverter selection and simplified DC-side integration.

Key Features

- For projects requiring external inverter integration
- Ideal voltage range for ATESS PCS, Megarevo MPS, Sunsynk, Deye 50, etc..

Feature	Advantage
Integrated DC busbars	Simplified DC integration
603.2V to 748.8V	Ideal for usage with commercial and industrial inverters
DC parallel scalability	Flexible system expansion of up to 12 cabinets



Central Inverter Systems

Compatible with central inverter configurations, the SOLVA DC208 enables scalable energy deployment with optimised DC-side integration and efficient system expansion.

Specifications

PARAMETERS	
Cell Capacity [Ah]	314
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Total Energy Capacity [kWh]	208.8
System Depth of Discharge [%]	90
Cycle Life	≥8000 cycles
Nominal Voltage [V]	665.6
Max/Min. Operating Voltage [V]	748.8/582.4
Max. Charge/Discharge Rate	0.5P
Cell Configuration	1P52S per module, 4 modules per pack
Battery Pack Thermal Management System	Liquid Heating and Cooling
CONNECTION METHOD	
External Hybrid Inverter Connection	Integrated DC Busbars - rated for 100kW
DC Cabinet Parallel Connection	A maximum of 12 cabinets can be connected in parallel (additional controller required). External inverters connected in AC parallel.
External Inverter Communication Interface	CAN Bus
DC Cable Entry	Bottom Entry
LIQUID THERMAL MANAGEMENT	
Max. Auxiliary Power [kW]/Current [A]	2.8/13.4
Max. Cooling Capacity [kW]	5
Max. Heating Capacity [kW]	2
SYSTEM PARAMETERS	
Dimensions (HxWxD) ±5 [mm]	2000x1050x1350
Weight [Tons]	2.3
Ingress Protection	IP55
Corrosion Protection Class	C3 (C5 optional)
Monitoring and Control	Built-in Cabinet Management System (CMS) interfaces with site EMS for coordinated control, monitoring, and logging of BMS, and thermal systems. Includes local data storage and cloud synchronisation for remote access.
Communication Interface	RS485 (EMS), CAN (BMS), LAN (Network)
Protection	DC Breaker
Fire Suppression System	Aerosol and fire hose adaptor for full water flooding
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	-20 to 55
Operating humidity [%]	≤95
Max. Operating Altitude	Full load ≤2000m; >2000m, derate 1%/100m; max 4000m

Standards & Certifications:
UN38.3

Standard Warranty:
5 years (Warranty extension available)

SOLVA DC261

The **Freedom Won SOLVA DC261** is a high-voltage DC-coupled energy storage cabinet designed for integration with external hybrid and central inverter systems.

Its integrated DC busbar configuration supports scalable system expansion, flexible inverter selection and simplified DC-side integration.

Key Features

- For projects requiring external inverter integration
- External hybrid inverter can be mounted to the side of the cabinet

Feature	Advantage
Integrated DC busbars	Simplified DC integration
832V nominal voltage	Suits popular hybrid inverters, e.g. Solis
DC parallel scalability	Flexible system expansion of up to 12 cabinets



Hybrid inverter not included.
For illustrative purposes only.

Versatile Energy Storage Solutions

Hybrid Systems

The SOLVA DC261 integrates with popular hybrid inverter brands, supporting cost-effective deployment of medium-sized commercial projects.

Central Inverter Systems

Compatible with central inverter configurations, the SOLVA DC261 enables scalable energy deployment with optimised DC-side integration and efficient system expansion.

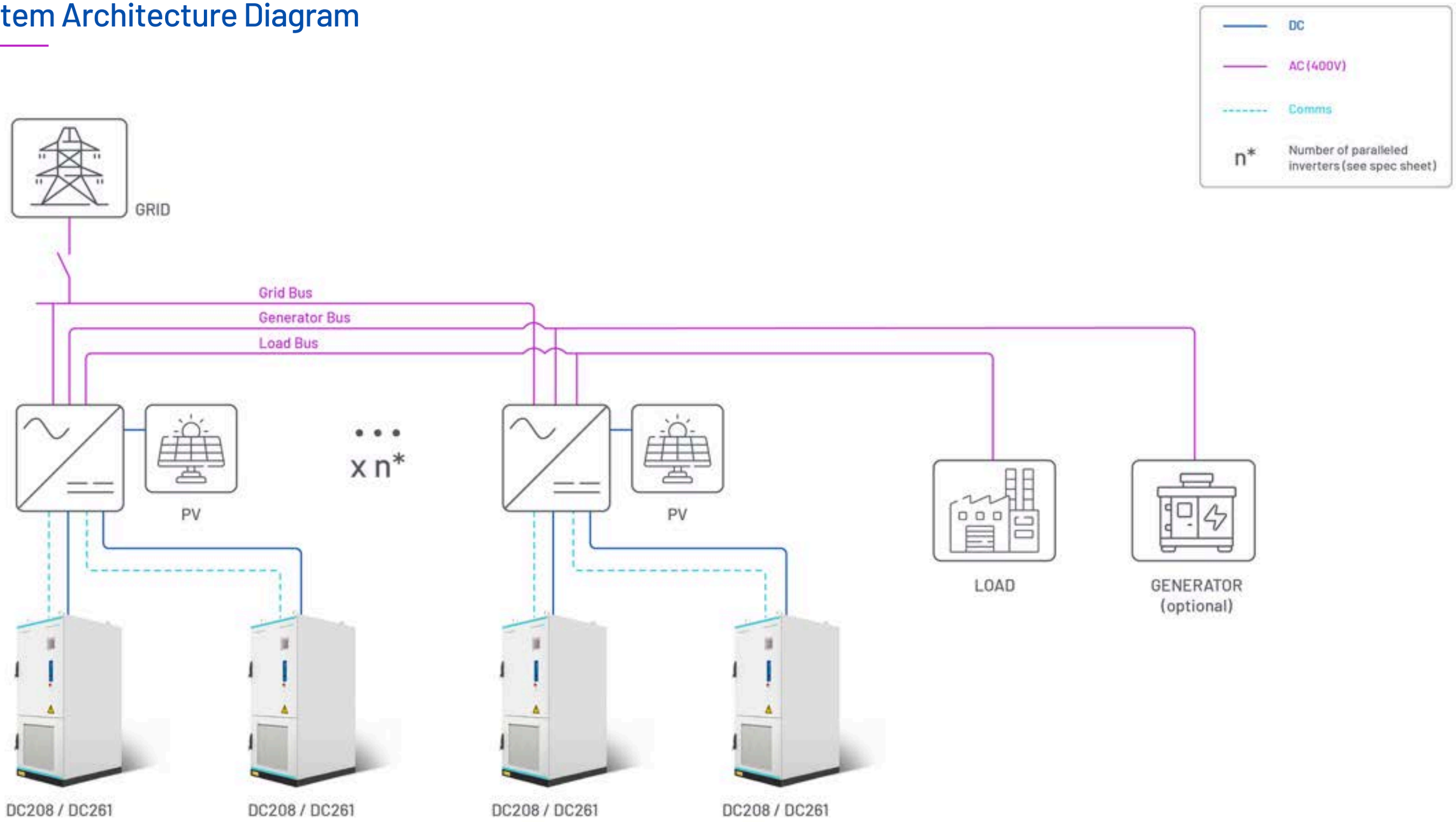
Specifications

PARAMETERS	
Cell Capacity [Ah]	314
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Total Energy Capacity [kWh]	261
System Depth of Discharge [%]	90
Cycle Life	≥8000 cycles
Nominal Voltage [V]	832
Max/Min. Operating Voltage [V]	936/728
Max. Charge/Discharge Rate	0.5P
Short Circuit Current [kA]	8
Cell Configuration	1P52S per module, 5 modules per pack
Battery Pack Thermal Management System	Liquid Heating and Cooling
CONNECTION METHOD	
External Hybrid Inverter Connection	Integrated DC Busbars - rated for 125kW
DC Cabinet Parallel Connection	A maximum of 12 cabinets can be connected in parallel (additional controller required). External inverters connected in AC parallel.
External Inverter Communication Interface	CAN Bus
DC Cable Entry	Bottom Entry
LIQUID THERMAL MANAGEMENT	
Max. Auxiliary Power [kW]/Current [A]	2.8/13.4
Max. Cooling Capacity [kW]	5
Max. Heating Capacity [kW]	2
SYSTEM PARAMETERS	
Dimensions (HxWxD) ±5 [mm]	2100x1050x1350
Weight [Tons]	2.5
Ingress Protection	IP55
Corrosion Protection Class	C4 (C5 optional)
Monitoring and Control	Built-in Cabinet Management System (CMS) interfaces with site EMS for coordinated control, monitoring, and logging of BMS, and thermal systems. Includes local data storage and cloud synchronisation for remote access.
Communication Interface	RS485 (EMS), CAN (BMS), LAN (Network)
Protection	DC Breaker
Fire Suppression System	Aerosol and fire hose adaptor for full water flooding
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	-20 to 55
Operating humidity [%]	≤95
Max. Operating Altitude	Full load ≤2000m; >2000m, derate 1%/100m; max 4000m

Standards & Certifications:
UN38.3 (optional version with: IEC62619, IEC63056)

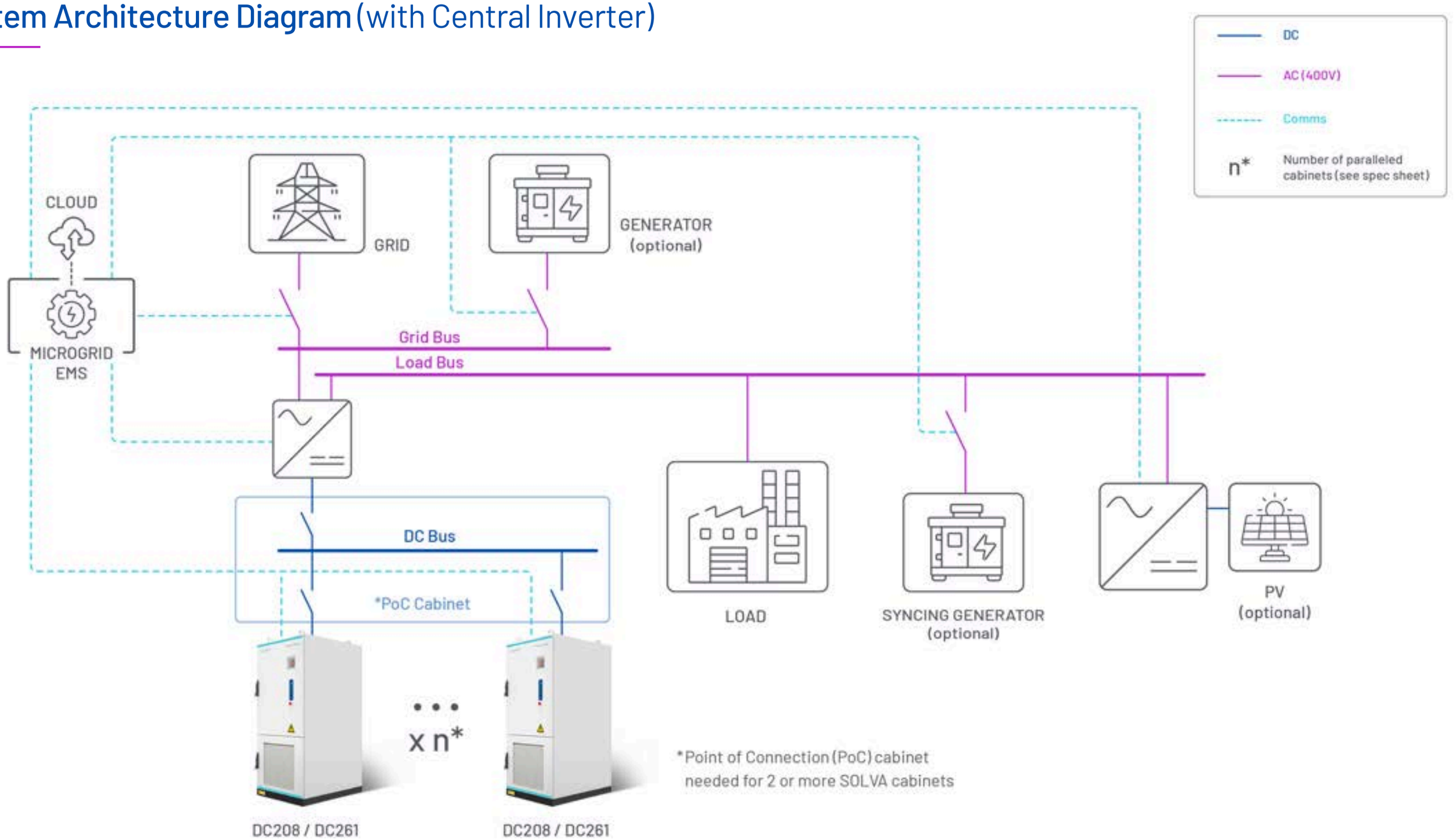
Standard Warranty:
5 years (Warranty extension available)

System Architecture Diagram



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System Architecture Diagram (with Central Inverter)



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SOLVA RT261

The **Freedom Won SOLVA RT261** integrates 261kWh high-voltage $LiFePO_4$ storage with a 125kW rectifier system for direct DC bus charging and central or hybrid inverter integration.

Its transformerless rectifier topology supports efficient power conversion, low harmonic distortion and scalable DC-coupled system deployment.

Key Features

- Dual conversion for poor grid quality, and no voltage dip while transitioning to off-grid.
- NRS 097-2-1, AS/NZS 4777.2:2020 certified.

Feature	Advantage
Integrated 125kW rectifier	Reduced external integration requirements
832V nominal DC voltage	Suits popular hybrid inverters, e.g. Solis
665.6V/209kWh configuration available	For alternative inverter compatibility options
Transformerless topology	Lower balance of system cost
DC parallel scalability up to 12 cabinets	Scalable expansion for central inverter systems



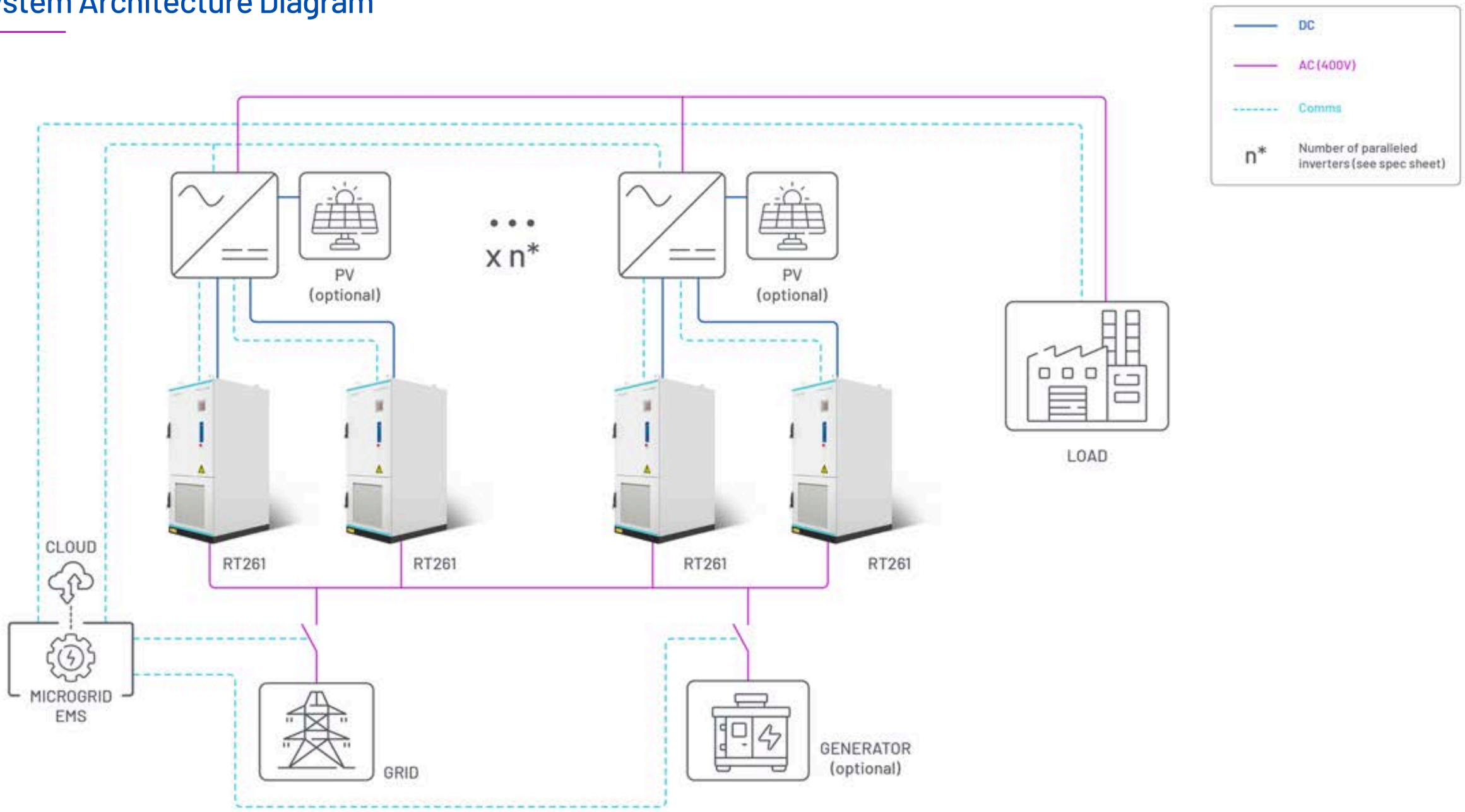
Standards & Certifications:
UN38.3, NRS097-2-1, AS/NZS4777.2 (optional version with: IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4)

Standard Warranty:
5 years (Warranty extension available)

Specifications

PARAMETERS	
Cell Capacity [Ah]	314
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Total Energy Capacity [kWh]	261
System Depth of Discharge [%]	90
Cycle Life	≥8000 cycles
Nominal Voltage [V]	832
Max/Min. Operating Voltage [V]	936/728
Max. Charge/Discharge Rate	0.5P
Short Circuit Current [kA]	8
Cell Configuration	1P52S per module, 5 modules per pack
Battery Pack Thermal Management System	Liquid Heating and Cooling
DC CONNECTION METHOD	
External Hybrid Inverter Connection	Integrated DC Busbars - rated for 125kW
DC Cabinet Parallel Connection	A maximum of 12 cabinets in DC parallel (additional controller required). External inverters connected in AC parallel.
External Inverter Communication Interface	CAN Bus
DC Cable Entry	Bottom Entry
AC CONNECTION METHOD	
Integrated Rectifier rated power [kW]	125
System Input AC Voltage [V]	400
Rated Frequency [Hz]	50/60
AC Short Circuit Current [A]	450
AC Connection Method	(3P+N+PE) Three-Phase, Four-Wire System
Total Current Harmonic Distortion (THD-I) [%]	<2 (at Rated Power)
Isolation Type	Transformerless
AC Cable Entry	Bottom Entry
LIQUID THERMAL MANAGEMENT	
Max. Auxiliary Power [kW]/Current [A]	2.8/13.4
Max. Cooling Capacity [kW]	5
Max. Heating Capacity [kW]	2
SYSTEM PARAMETERS	
Max. Round Trip Efficiency [%]	89
Dimensions (H×W×D) ±5 [mm]	2400x1050x1350
Weight [Tons]	2.5
Ingress Protection	IP55
Corrosion Protection Class	C4 (C5 optional)
Monitoring and Control	Built-in Cabinet Management System (CMS) interfaces with site EMS for coordinated control, monitoring, and logging of BMS, and thermal systems. Includes local data storage and cloud synchronisation for remote access.
Communication Interface	RS485 (EMS), CAN (BMS), LAN (Network)
Protection	AC overcurrent protection, AC overvoltage protection, AC short-circuit protection, anti-islanding protection, reverse polarity protection (DC side)
Fire Suppression System	Aerosol and fire hose adaptor for full water flooding
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	-20 to 55
Operating humidity [%]	≤95
Max. Operating Altitude	Full load ≤2000m; >2000m, derate 1%/100m; max 4000m

System Architecture Diagram



Note: The system architecture diagrams presented in this document are indicative only and depict representative site configurations. They do not constitute a design specification. Final system layout, equipment quantities, and electrical arrangements are subject to site assessment, local regulations, and engineering design review.

SOLVA AC418

The **Freedom Won SOLVA AC418** combines 418kWh $LiFePO_4$ battery storage, integrated PCS functionality and intelligent system control into a unified AC-coupled energy storage platform.

Designed for simplified deployment and scalable operation, the SOLVA AC418 supports on-grid and off-grid operation with parallel expansion capability for large-scale energy storage applications.

Key Features

- Larger scale cabinet with built-in PCS.
- Optimal for systems that have MV ring main - Step-up transformer required.

Feature	Advantage
690V AC output	Compact high-power, high-efficiency PCS
Parallel scalability	On-Grid Expansion: 24 cabinets in parallel
Power factor control	Active and reactive power capability
Robust PCS	Black start capability, built-in VSG, 50% inductive loads



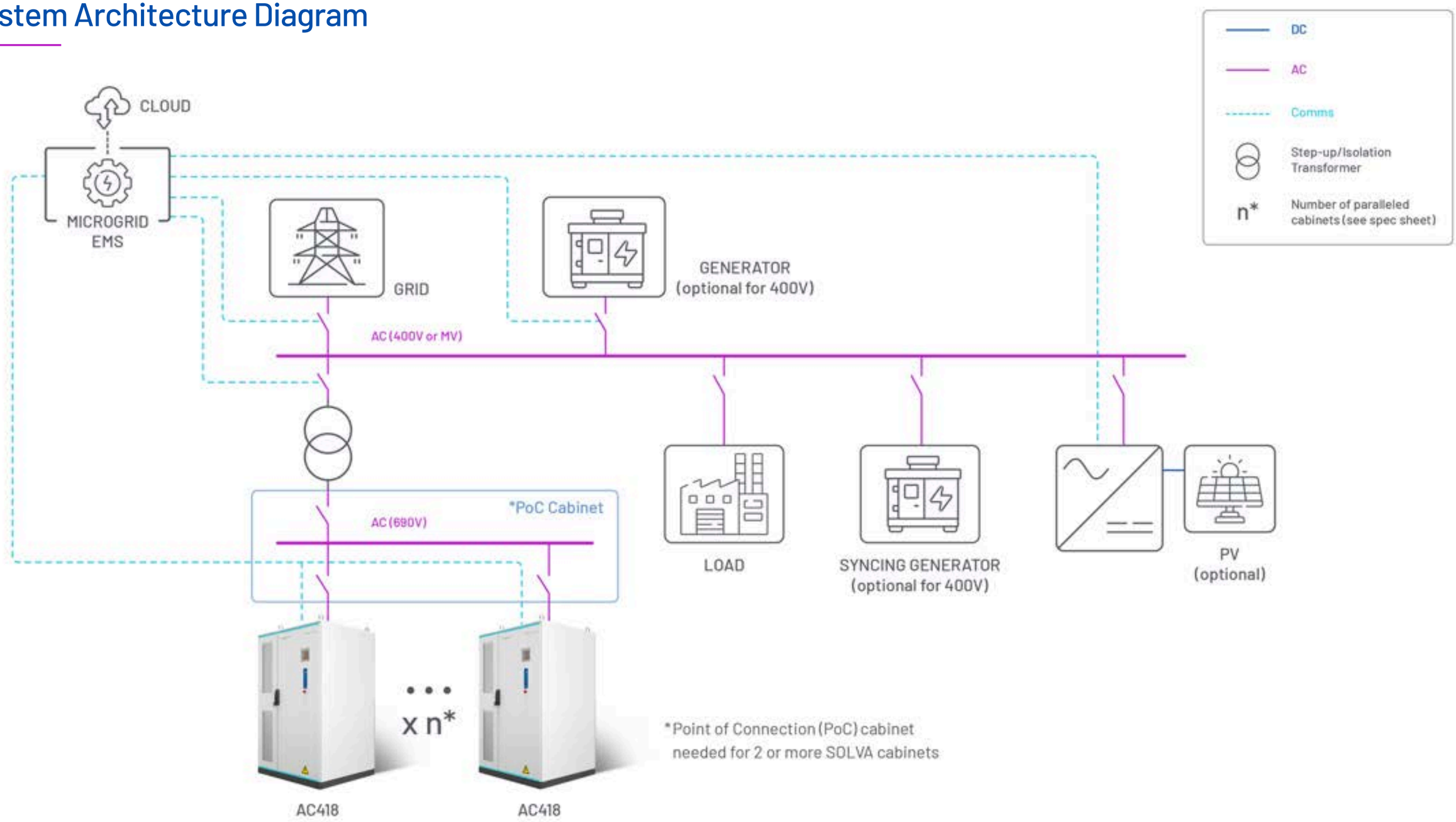
Standards & Certifications:
UN38.3 (optional version with: IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4)

Standard Warranty:
5 years (Warranty extension available)

Specifications

DC-SIDE PARAMETERS	
Cell Capacity [Ah]	314
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Total Energy Capacity [kWh]	418
System Depth of Discharge [%]	90
Cycle Life	≥8000 cycles
Nominal Voltage [V]	1331.2
Max/Min. Operating Voltage [V]	1497.6/1164.8
Max. Charge/Discharge Rate	0.5P
Cell Configuration	1P52S per module, 8 modules per pack
Battery Pack Thermal Management System	Liquid Heating and Cooling
AC CONNECTION PARAMETERS	
Integrated PCS rated power [kW]	215
System Output AC Voltage [V]	690 (-15% to +15%)
Rated Frequency [Hz]	50/60
AC Connection Method	(3P3W+PE) without N at 690Vac level
Power Factor Range	Adjustable from 0.99 leading to 0.99 lagging
Total Current Harmonic Distortion (THD-I) [%]	<3 (at Rated Power)
Isolation Type	Non-isolated
AC Cable Entry	Bottom Entry
LIQUID THERMAL MANAGEMENT	
Power Supply	1/PE AC 220V 50/60Hz
Max. Cooling Capacity [kW]	8
Max. Heating Capacity [kW]	2
SYSTEM PARAMETERS	
System Total Efficiency [%]	89%
Dimensions (H×W×D) ±5 [mm]	2400x1350x1500
Weight [Tons]	3.8
Ingress Protection	IP55
Corrosion Protection Class	C4 (C5 optional)
Inverter Thermal Management System	Intelligent Air Cooling
Monitoring and Control	Built-in Cabinet Management System (CMS) interfaces with site EMS for coordinated control, monitoring, and logging of BMS, PCS, and thermal systems. Includes local data storage and cloud synchronisation for remote access.
Communication Interface	RS485 (EMS), CAN (BMS), LAN (Network)
Parallel Configuration	On-Grid mode supports up to 24 cabinets in parallel.
Protection	AC overcurrent protection, AC overvoltage protection, AC short-circuit protection, anti-islanding protection, reverse polarity protection (DC side)
Fire Suppression System	Aerosol and fire hose adaptor for full water flooding
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	Charging: 0 to 55; Discharging: -20 to 55
Operating humidity [%]	≤95
Max. Operating Altitude	Full load ≤2000m; >2000m, derate 1%/100m; max 4000m

System Architecture Diagram



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SOLVA DC418

The **Freedom Won SOLVA DC418** is a high-voltage DC-coupled energy storage cabinet designed for integration with external high-voltage central inverter systems.

Its integrated DC busbar configuration supports scalable system expansion, flexible inverter selection and simplified DC-side integration.

Key Features

- For projects requiring external high-voltage inverter integration
- High energy density in a small footprint



Feature	Advantage
Integrated DC busbars	Simplified DC integration
1164.8V to 1497.6V	Ideal for usage with high-voltage inverters
DC parallel scalability	Flexible system expansion of up to 12 cabinets

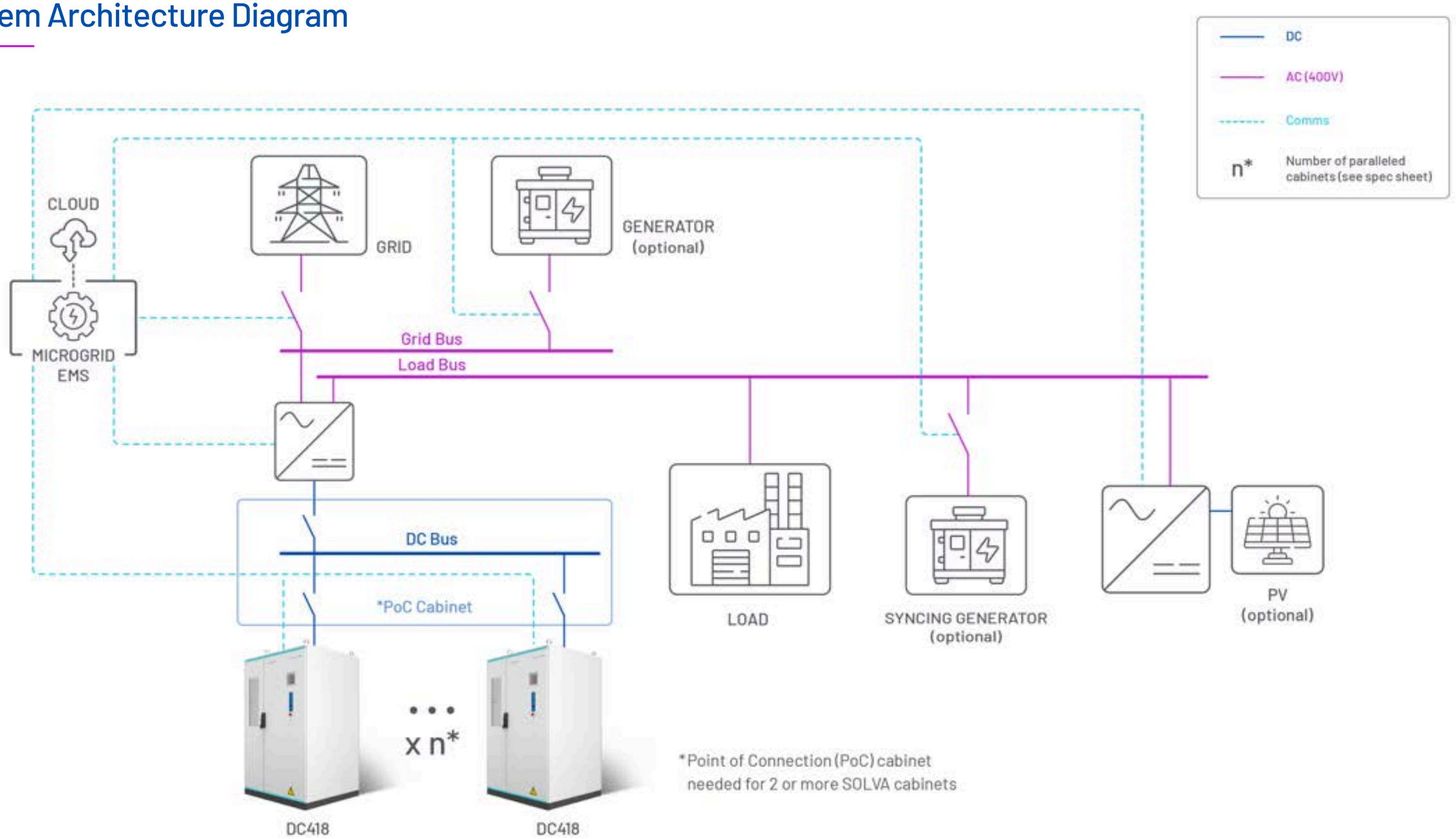
Standards & Certifications:
UN38.3 (optional version with: IEC62619, IEC63056)

Standard Warranty:
5 years (Warranty extension available)

Specifications

DC-SIDE PARAMETERS	
Cell Capacity [Ah]	314
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)
Total Energy Capacity [kWh]	418
System Depth of Discharge [%]	90
Cycle Life	≥8000 cycles
Nominal Voltage [V]	1331.2
Max/Min. Operating Voltage [V]	1497.6/1164.8
Max. Charge/Discharge Rate	0.5P
Cell Configuration	1P52S per module, 8 modules per pack
Battery Pack Thermal Management System	Liquid Heating and Cooling
CONNECTION METHOD	
External Hybrid Inverter Connection	Integrated DC Busbars - rated for 210kW
DC Cabinet Parallel Connection	A maximum of 12 cabinets can be connected in parallel (additional control and point of connection cabinet required). External inverters connected in AC parallel.
External Inverter Communication Interface	CAN Bus
DC Cable Entry	Bottom Entry
LIQUID THERMAL MANAGEMENT	
Power Supply	1/PE AC 220V 50/60Hz
Max. Cooling Capacity [kW]	8
Max. Heating Capacity [kW]	2
SYSTEM PARAMETERS	
Dimensions (H×W×D) ±5 [mm]	2400x1350x1350
Weight [Tons]	3.7
Ingress Protection	IP55
Corrosion Protection Class	C4 (C5 optional)
Inverter Thermal Management System	Intelligent Air Cooling
Monitoring and Control	Built-in Cabinet Management System (CMS) interfaces with site EMS for coordinated control, monitoring, and logging of BMS, PCS, and thermal systems. Includes local data storage and cloud synchronisation for remote access.
Communication Interface	RS485 (EMS), CAN (BMS), LAN (Network)
Protection	DC Breaker
Fire Suppression System	Aerosol and fire hose adaptor for full water flooding
ENVIRONMENTAL PARAMETERS	
Operating Temperature [°C]	Charging: 0 to 55; Discharging: -20 to 55
Operating humidity [%]	≤95
Max. Operating Altitude	Full load ≤2000m; >2000m, derate 1%/100m; max 4000m

System Architecture Diagram



Note: The system architecture diagrams presented in this document are indicative only and depict representative site configurations. They do not constitute a design specification. Final system layout, equipment quantities, and electrical arrangements are subject to site assessment, local regulations, and engineering design review.

SOLVA Range Feature Comparison

Specification	DC208	DC261	DC418	RT261	AC261	AC418
Coupling Type	DC-Coupled			Rectifier-coupled (AC Source)	AC-Coupled	
				DC-coupled (external inverter)		
Integrated PCS	No			Rectifier Only	Yes	
DC Nominal Voltage	665.6V	832V	1331.2V	832V		1331.2V
THD	N/A			<2%		<3%
Power Rating	100kW (for 0.5C)	125kW (for 0.5C)	210kW(for 0.5C)	125kW		215kW
Parallel Capability	12 (DC Side)				24 (on-grid) / 6 (off-grid)	24 (on-grid)
Thermal Management	Liquid Cooling and Heating					
Protection Rating	IP55					
Corrosion Rating	C5 (C4 Optional)					

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