

Commercial Solutions

High Voltage Range - Outdoor Battery Storage



Guarantee on Product
Material & Workmanship



Energy Output
Warranty

The Solar MD Outdoor Battery Storage Solution is one of the most flexible solutions available on the market. It features four side mounting plates, allowing for the installation of equipment tailored to individual requirements.

This cabinet is **compatible with any hybrid inverter** designed to work with Solar MD batteries, offering users the freedom to customize their setup. Additionally, a range of add-on solutions is available, including pre-configured PCS, MPPT, STS, and other products, providing enhanced versatility and functionality.

Features



'Ready-to-Go' Deployment & Commissioning



Designed for Maximum Adaptability



Engineered & Tested For All Weather Conditions



Integrated Advanced EMS



Built-In Fire Protection Features



Unmatched Lightweight Design



Expand with Add-on Products



Designed for Outdoor Use



Integrated Cooling System



Compatible Across All Major Brands

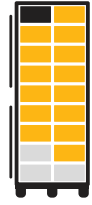
Technical Data



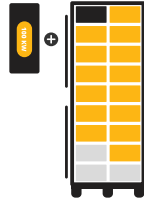
HV - Outdoor Battery Storage Solution

Cell Chemistry	Lithium Iron Phosphate (LiFePO4)
Cell Manufacturer	CATL
Capacity Range	71.5 - 243.1 kWh
Operational Voltage (min/max)	224 - 952 V
Number of battery modules	5 - 17 pcs (SS6143 Modules)
Battery Rack	CB52x_HV-H9-R2
Cell Certification & Standards	IEC 62619 / UN38.3 / UN3480/ UL1642/ CE
Cycle Life @25°C	≥6000
Recommended depth of discharge (DoD)	90%
Cabinet Round Trip Efficiency	> 93% (Battery Only)
Cabinet Ambient Temperature	-10°C to 50°C (-30°C on request)
Cabinet Thermal Insulation	Rockwool
Protection Class	IP65
Cabinet Safety Standard	IEC 62933-5-2:2020
Battery Safety Standard	CE / EN 55016 / IEC 61000
Fire Protection	Fire Pro (Eco Friendly - K2 CO3)
Climatization	Air Conditioner
Energy Management System	mypower24 Plant Controller

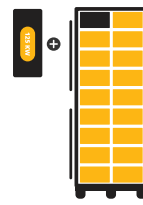
Add on PCS Bundles



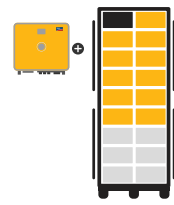
Standalone
71.5 - 243.1kWh



Bundle
100kW / 200.2kWh



Bundle
125kW / 243.1kWh



powered by SMA
50kW / 157.3kWh

DC Parameters

Battery voltage operating range	224 - 952 V	627.2 - 784 V	761.6 - 952 V	492.8 - 616 V
Number of battery modules	5 - 17 pcs	14 pcs	17 pcs	11 pcs
PCS voltage operating range	-	580-1000V	580-1000V	200 - 980 V
PCS Maximum charge / discharge current	-	200A	200A	150 A

AC Parameters

Rated charge/discharge power	-	100kW	125 kW	50 kW
Maximum charge/discharge power	-	110kW	150 kW	50 kW
Rated grid voltage	-	400V	400V	400V
Rated grid frequency	-	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Topology	-	Three-phase / Transformerless	Three-phase / Transformerless	Three-phase / Transformerless
Connection Lines	-	3W+N+PE	3W+N+PE	3W+N+PE

Efficiency

Maximum efficiency	-	98.9%	98.9%	98.0 %
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Protection

Surge protection	-	AC: Type II	AC: Type II	DC: Type II / AC: Type III
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PCS Parameters

Weight	-	58kg	58kg	104 kg
Ambient	-	-40°C - 60°C	-40°C - 60°C	-25 - 60°C
Communication type	-	Ethernet, RS485, CAN	Ethernet, RS485, CAN	Ethernet, CAN, Speedwire, RS485
PCS Warranty Period	-	3 Years	3 Years	5 + 5 Years

Cabinet Parameters

Dimensions	1248mm x 1112mm x 2623mm	1248mm x 1112mm x 2623mm	1248mm x 1112mm x 2623mm	1248mm x 1112mm x 2623mm
Weight	2178.8 kg fully loaded (149kg empty)	2178.8 kg fully loaded (149kg empty)	2178.8 kg fully loaded (149kg empty)	2178.8 kg fully loaded (149kg empty)
Battery rack	CB52x_HV-H9-R2	CB52x_HV-H9-R2	CB52x_HV-H9-R2	CB52x_HV-H9-R2
Ambient Temperature	-10°C to 50°C (-30°C on request)	-10°C to 50°C (-30°C on request)	-10°C to 50°C (-30°C on request)	-10°C to 50°C (-30°C on request)
EMS	mypower24 Plant Controller	mypower24 Plant Controller	mypower24 Plant Controller	mypower24 Plant Controller
Protection class	IP65	IP65	IP65	IP65
Cooling	Air Conditioner	Air Conditioner	Air Conditioner	Air Conditioner
Fire Safety	Fire Pro (Eco Friendly - K2 CO3)	Fire Pro (Eco Friendly - K2 CO3)	Fire Pro (Eco Friendly - K2 CO3)	Fire Pro (Eco Friendly - K2 CO3)

Variations

The Solar MD Outdoor Cabinet solution is available in a **standalone version**, accommodating between **5x and 17x SS6143 modules**, offering energy storage capacities ranging from **71.5 kWh to 243.1 kWh**. This configuration is compatible with any suitable hybrid inverter, making it a versatile choice for various energy applications.

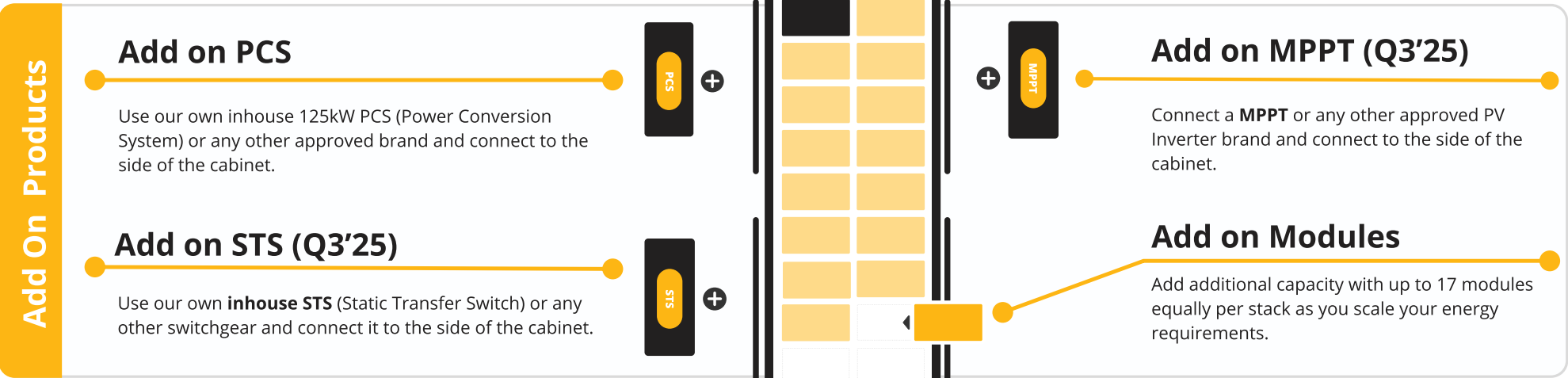
In addition to the standalone cabinet, Solar MD offers exclusive **bundled add-on products** that further enhance system capabilities. These bundles include **pre-configured solutions such as PCS (Power Conversion Systems), MPPT (Maximum Power Point Trackers), STS (Static Transfer Switches)**, and other innovative products, all designed to integrate seamlessly with the Solar MD Outdoor Cabinet for a comprehensive energy solution.

BMU

The BMU is responsible for collecting information of the entire battery system, SOC calculations and information exchange among the various battery modules in its respective cluster, and guarantees the safe and reliable operation of the entire energy storage system. The BMU is also responsible for communication with external devices (eg. PCS/HPS/Charger etc).

SS70xx Inside

The High Voltage battery system is integrated into the outdoor cabinet and ranges from 71.5kWh (SS7007) to 243.1kWh (SS7024), each battery system is fully modular with the addition of SS6143 modules in series.



Fire Safety

Fire detection system according to IEC standards utilising environmentally friendly aerosol technology.

System Cooling

Integrated air conditioner with 3.2 kW of cooling capacity to keep the system operating at optimal temperatures

Mounting Side Plates

Installed with Four side mounting plates for installation of equipment tailored to individual requirements.

Battery Frame CB5x_HV-H9-R2

The battery frame CB5x_HV-H9-R2 accommodates 18 racking slots where one is used for the BMU in each battery system. The frame is constructed from heavy-duty stainless steel for durability and comes integrated into the outdoor cabinet.

Applications

- ✓ Back-Up Power
- ✓ Commercial & Residential UPS Systems
- ✓ Charger Systems
- ✓ Off-Grid Electricity Supply
- ✓ Peak Shaving
- ✓ High Voltage Battery Inverter

Monitoring & Control

The High-Performance Logger V2 and mypower24 management platform are seamlessly integrated into our cabinet solution for efficient energy management. The Logger V2 enables fast communication via multiple interfaces (CAN Bus, RS232, RS485, Ethernet, Wi-Fi) and supports programmable relays, digital/analogue inputs/outputs, and device compatibility with inverters, energy meters, and weather stations. mypower24 compliments it with real-time data insights, secure remote management, and centralised control of energy infrastructure.



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