

# SS214

## Low Voltage Cabinets



Guarantee on Product  
Material & Workmanship



Energy Output  
Warranty

Our SS214 lithium iron phosphate battery system boasts a modular design. You can easily scale its capacity by connecting multiple units in parallel, making it ideal for various applications and enable you to use from 14.3 kWh to 457.0 kWh setup.

## Features

- High energy density
- Unmatched Reliability & Low Maintenance
- Field Replaceable Modular Components
- Stable discharge platform
- Long life cycle
- Green technology
- Pre-commissioned & Tested
- Scalable Design
- Engineered & Tested For Harsh Environments
- Advanced Battery Management
- Excellent Safety
- High charge & discharge rate

## Applications

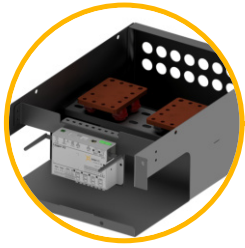
- Off-Grid
- Hybrid Inverter
- Grid Tied
- Charger Systems
- Residential UPS Systems
- Commercial UPS Systems
- Low Voltage Battery Inverter



SS214	
Cell Chemistry	Lithium Iron Phosphate (LiFePO4)
Cell Manufacturer	CATL
Rated Capacity	14.3 kWh
Nominal Power @0.7C	10.0 kW
Nominal Voltage	51.2V
Operational Voltage	44.8 - 55.6Vdc
Max Charge & Discharge Current	200A
Communication	CANBUS / RS485
Weight per module	112kg
Dimensions (W x D x H)	426mm x 722mm x 230mm

## Product Diagram

The Battery Module SS214 combines to a flexible battery system with the CB racking system.



### Combiner Box

The Combiner box on top of the battery includes a positive (+) and negative (-) DC busbar with multiple connection point. It connects all batteries in the rack as well as its a connection point to the inverter.

Additional the combiner box has a mounting space for the Logger V2 and connects all communication cables between batteries and Logger.

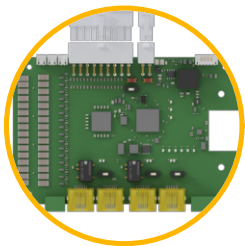


### Battery Module SS214

The low voltage battery system ranges from 57.2kWh (CB35) to 114.3 kWh (CB39), each battery system is fully modular with the addition of SS214 modules in series.

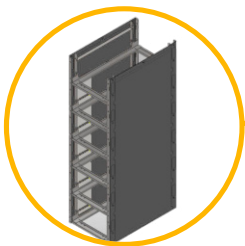
The SS214 battery system can then be connected in parallel to meet your storage requirements.

Each module is field changeable and can be exchanged for a new unit when needed.



### Battery Management System (BMS)

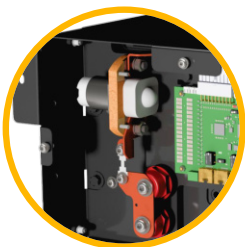
Each battery module has its own BMS which is used for communication with the BMU, as well as perform internal functions down to cell level in each module.



### Battery Frame (CB3x) & Sidewalls

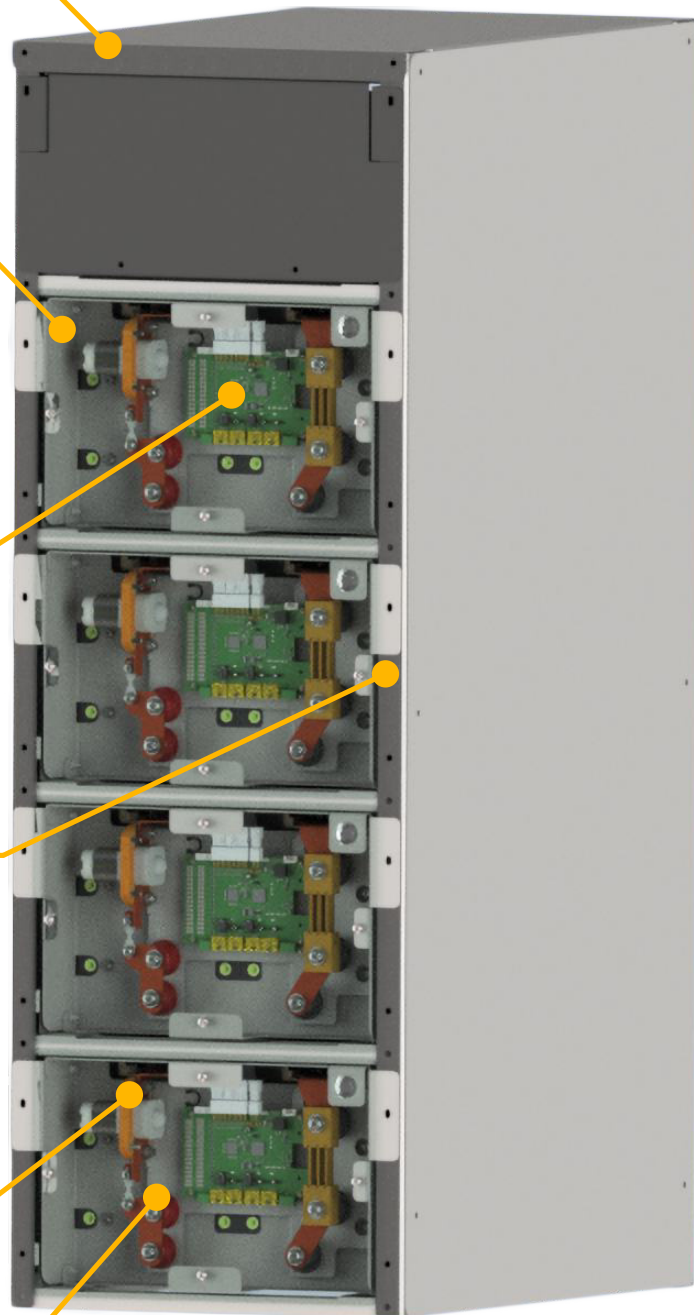
The battery frame (CB3x) is available in several sizes to accommodate 5, 6, or 9 racking slots where one is used for the battery combiner (busbar) in each battery system. The powder coated frame is constructed from heavy-duty stainless steel for durability and comes already build up incl accessories.

**Side walls** are offered separately in pairs and are optional.



### Relay & Fuse

Each module includes a 200A relay and a 200A fuse that protects the system from potential damage.

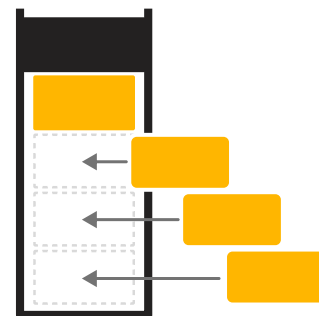
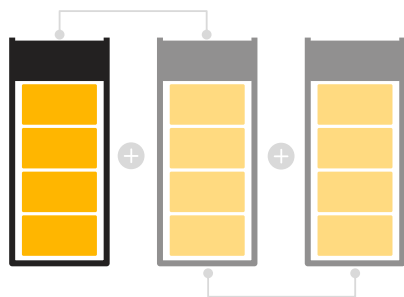
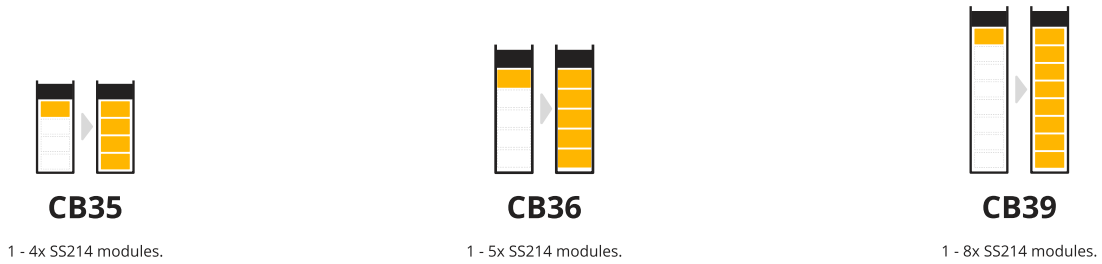


### Connection Cables

The battery system comes with pre cut/crimp DC-Connection & communication cables.

# Variations

Our Low Voltage CB Cabinet range is a metal rack-mount system designed for different storage capacities according to your energy requirements.

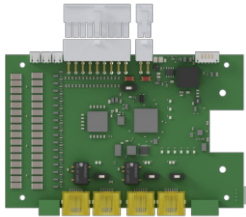


<b>Operational Temperature</b> 0°C to 50°C	<b>Storage Duration</b> 6 months @25°C	<b>Cycle Life</b> ≥6000	<b>Charging Efficiency</b> 99%	<b>Safety Standard Compliance</b> CE / EN 55016 / IEC 61000	<b>Cell Certificate</b> IEC 62619 / UN38.3 / UN3480 / UL 1642 / UL 1973
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	CB35	CB36	CB39
<b>battery modules per cabinet</b>	1 - 4x SS214 Modules	1 - 5x SS214 Modules	1 - 8x SS214 Modules
<b>Capacity Range</b>	14.3 - 57.2 kWh	14.3 - 71.5 kWh	14.3 - 114.4 kWh
<b>Nominal Power (@0.7C)</b>	10 - 40.0 kW	10 - 50.0 kW	10 - 80.0 kW
<b>Nominal Voltage</b>	51.2V	51.2V	51.2V
<b>Operational Voltage</b>	44.8 - 55.6Vdc	44.8 - 55.6Vdc	44.8 - 55.6Vdc
<b>Communication</b>	CANBUS / RS485	CANBUS / RS485	CANBUS / RS485
<b>Rack Weight</b>	50kg	60kg	90kg
<b>Total Weight<sup>1</sup></b>	498kg	620kg	986kg
<b>Dimensions (W x D x H)</b>	438mm x 710mm x 1300mm	438mm x 710mm x 1525mm	438mm x 710mm x 2286mm

<sup>1</sup> Total system weight on site. Shipping weight and packaging sizes will change according to transport (sea/road) weight limitations.

# Battery Management System

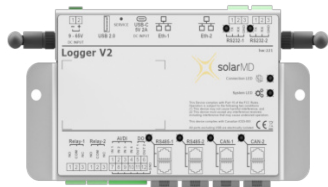


Each Solar MD battery has its own Battery Management System (BMS) designed and built in-house. The BMS handles the internal functions of each battery. In setups with multiple batteries, the BMS independently manages each one, ensuring a stable energy flow throughout the battery system.

- Data collection & storage for monitoring
- Efficient charging & discharging control
- Precise cell voltage measurement
- Built in temperature sensors
- Voltage management to prevent damage
- Cell balancing for extended lifespan
- SOC Calculation & Control
- CANBUS & RS485 Communication
- CE / IEC61000
- 2x Relays Isolated

# Monitoring & Control

The EMS integrates seamlessly with various brands and devices, including energy meters, generators, and inverters. This capability enables real-time adjustments to energy consumption and production, empowering you to make informed decisions for optimal system management. Regular reports provide insights into energy consumption, cost savings, and environmental impact.



## Logger V2 (The Device)

The High-Performance Logger V2 offers easy and fast communication with automatic device discovery and connection.

- **Interfaces** include CAN Bus, RS232, RS485, Ethernet, and Wi-Fi (client and station).
- Integrated **programmable relays**, digital inputs, digital outputs, analogue input, analogue output for load control.
- **Communicates with** supported inverters, energy meters, weather stations, and other energy devices.

## mypower24 (The Platform)

mypower24 is a comprehensive management platform designed to simplify and centralise the control of your energy devices. Seamlessly integrating with your Logger V2, mypower24 offers a robust suite of features that effectively manage and optimise your energy infrastructure:

- **Real-Time Data & Insights:** Gain valuable insights into your energy usage with real-time data visualisation and historical records.
- **Safe & Secure:** High-security standards via certified authentication and encrypted data transfer.
- **Convenient Remote Management:** Remotely manage your system & devices for maximum efficiency.



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