SS214

Low Voltage Cabinets

5 Years
Guarantee on Product Material & Workmanship

12 Years
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**

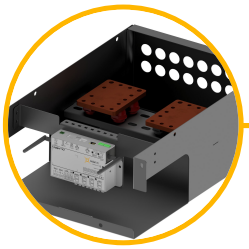
Applications

- 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

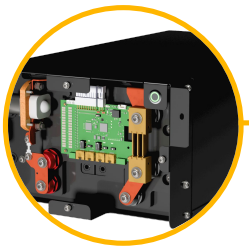
The Battery Module SS214 combines to a flexible battery system with the CB racking system.



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.

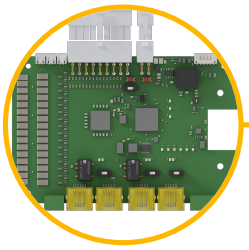


Battery Module SS214

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.

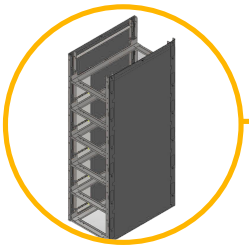
The SS214 battery system can then be connected in parallel to meet your storage requirements.

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



Battery Management System (BMS)

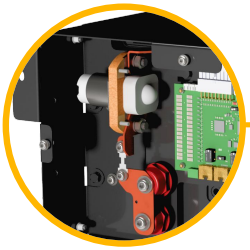
Each battery module has its own BMS which is used for communication with the BMU, as well as perform internal functions down to cell level in each module.



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.

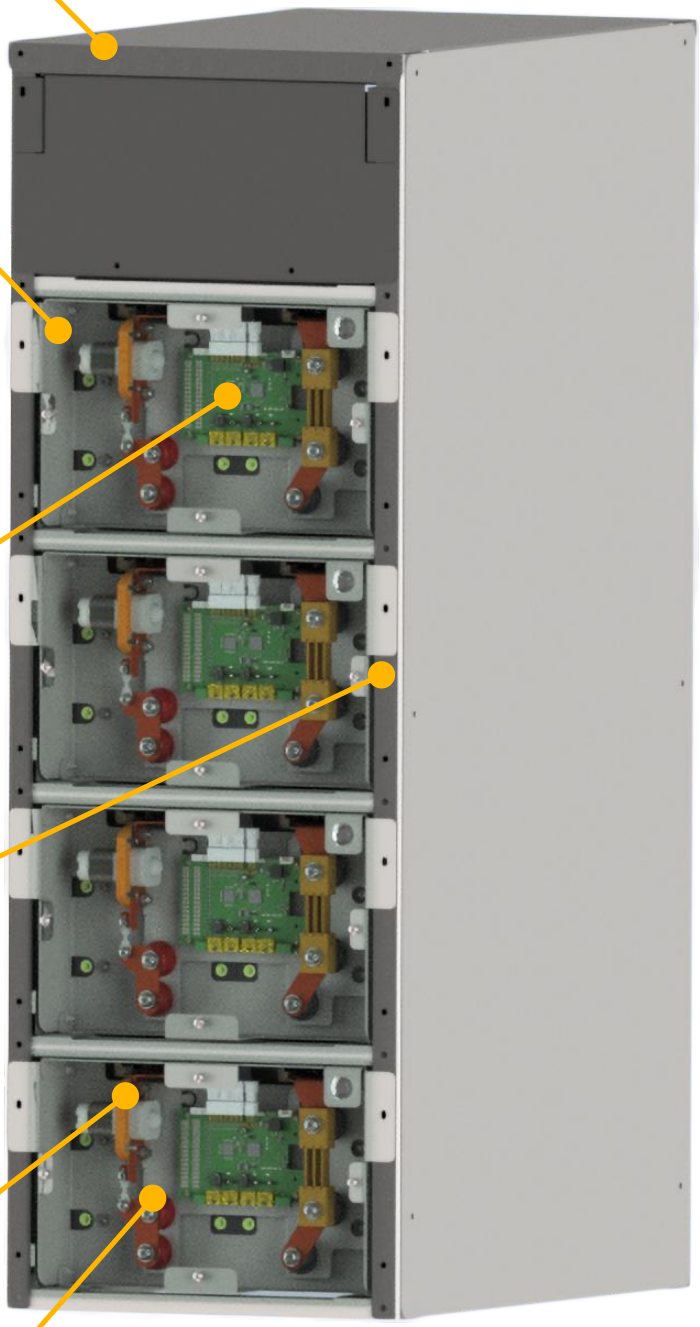


Relay & Fuse

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

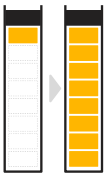
Our Low Voltage CB Cabinet range is a metal rack-mount system designed for different storage capacities according to your energy requirements.

CB35

1 - 4x SS214 modules.

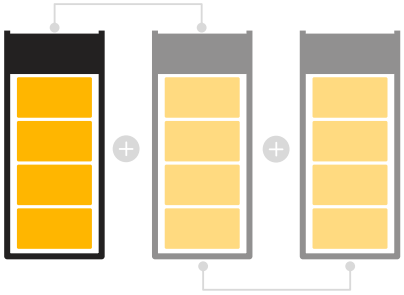
CB36

1 - 5x SS214 modules.

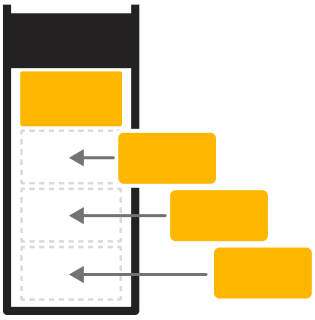


CB39

1 - 8x SS214 modules.



Capacity can be increased through adding additional modules and/or cabinets through a parallel connection.



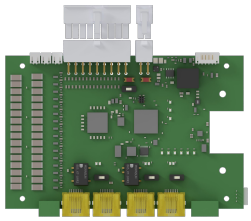
Increase capacity by adding on more modules when you need

Operational Temperature	Storage Duration	Cycle Life	Charging Efficiency	Safety Standard Compliance	Cell Certificate
0°C to 50°C	6 months @25°C	≥6000	99%	CE / EN 55016 / IEC 61000	IEC 62619 / UN38.3 / UN3480 / UL 1642 / UL 1973

	CB35	CB36	CB39
battery modules per cabinet	1 - 4x SS214 Modules	1 - 5x SS214 Modules	1 - 8x SS214 Modules
Capacity Range	14.3 - 57.2 kWh	14.3 - 71.5 kWh	14.3 - 114.4 kWh
Nominal Power (@0.7C)	10 - 40.0 kW	10 - 50.0 kW	10 - 80.0 kW
Nominal Voltage	51.2V	51.2V	51.2V
Operational Voltage	44.8 - 55.6Vdc	44.8 - 55.6Vdc	44.8 - 55.6Vdc
Communication	CANBUS / RS485	CANBUS / RS485	CANBUS / RS485
Rack Weight	50kg	60kg	90kg
Total Weight[1]	498kg	620kg	986kg
Dimensions (W x D x H)	438mm x 710mm x 1300mm	438mm x 710mm x 1525mm	438mm x 710mm x 2286mm

[1] *Total system weight on site. Shipping weight and packaging sizes will change according to transport (sea/road) weight limitations.*

Battery Management System

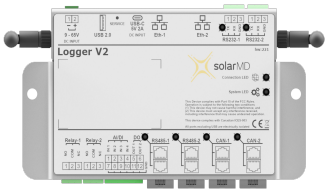


Each Solar MD battery has its own Battery Management System (BMS) designed and built in-house. The BMS handles the internal functions of each battery. In setups with multiple batteries, the BMS independently manages each one, ensuring a stable energy flow throughout the battery system.

- **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.

Contact Us

021 555 2181

076 280 4053

Info@solarmd.co.za

solarmd.com