RoveCluster

MODULAR HV LFP BATTERY SYSTEM

RV-CH Series

Scalable energy storage
for commercial and industrial use.



112-241 kWh	358.4-768 V	314 Ah	90 %
Rated System Energy	Rated System Voltage	Rated Capacity	Depth of Discharge

Modular Configuration

7-15 battery modules with 1 BPU.

Intelligent BMS

Monitoring, protection and 7-inch touch screen.

Long Design Life

Battery module design life: 15+ years at 25°C.

System Integration

CAN communication / RS485 monitoring.

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TECHNICAL SPECIFICATIONS

RV-CH Series | 112-241 kWh



Product appearance illustration

COMMON SPECIFICATIONS

Rated Capacity	314 Ah
Rated Charge / Discharge	0.5C
Display	7-inch touch screen
Battery Management System	Included
Communication	CAN
Monitoring	RS485
Protection Degree	IP20

SYSTEM CONFIGURATIONS

Rated Energy (kWh)	Configuration	Rated Voltage (V)	Voltage Range (V)	Dimensions W x D x H (mm)	Weight (kg)
112	7 modules + 1 BPU	358.4	313.6-397.6	900 x 950 x 1100	985
128	8 modules + 1 BPU	409.6	358.4-454.4	900 x 950 x 1350	1110
144	9 modules + 1 BPU	460.8	403.2-511.2	900 x 950 x 1350	1235
160	10 modules + 1 BPU	512	448-568	900 x 950 x 1600	1350
176	11 modules + 1 BPU	563.2	492.6-624.8	900 x 950 x 1600	1475
192	12 modules + 1 BPU	614.4	537.6-681.6	900 x 950 x 1850	1600
208	13 modules + 1 BPU	665.6	582.4-738.4	900 x 950 x 1850	1725
225	14 modules + 1 BPU	716.8	627.2-795.2	900 x 950 x 2100	1850
241	15 modules + 1 BPU	768	672-852	900 x 950 x 2100	1975

BATTERY MANAGEMENT SYSTEM

Monitoring

- Cell voltage
- Cell high / low voltage
- Cell temperature
- Charge and discharge current
- Total battery voltage
- Battery SOC
- Fault warning

Protection

- Short circuit protection
- Overcurrent protection
- Overcharge protection
- Overdischarge protection
- Cell overvoltage protection
- Cell undervoltage protection
- Overtemperature protection

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SYSTEM COMPONENTS

RV-CH Series | 112-241 kWh

Battery Module



MODULE SPECIFICATIONS

Rated Energy	16.0768 kWh
Rated Voltage	51.2 V
Rated Capacity	314 Ah
Voltage Range	44.8-56.8 V
Configuration	1P16S
Rated Charge / Discharge	0.5C
AC Internal Resistance	≤5 mΩ
Depth of Discharge	90%
Dimensions W x D x H (mm)	376 x 885 x 238.5 (±5 mm)
Weight	112 kg
Design Life	15+ years (25°C)
Cycle Life	>8000 cycles (25°C)
Communication	CANBUS / Modbus RTU / TCP/IP
Protection Class	IP20
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 60°C
Product Certificate	UN38.3

High-voltage Box (BPU)



CONTROLLER SPECIFICATIONS

Product Rating	1500 V / 200 A
AC Supply	/
Operating Voltage	0-1500 V
Max. Operating Current	200 A
Self-consumption Power	8 W
Dimensions W x D x H (mm)	85 x 434 x 238.2 (±5 mm)
Communication	MODBUS RTU / CAN
Protection Class	IP20
Weight	20 kg
Operating Life	15+
Operating Temperature	-20°C to +65°C
Storage Temperature	-40°C to +80°C

Control & Communication

High-voltage interface with MODBUS RTU / CAN communication support.

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DC COMBINER CABINET

RV-CH Series | 112-241 kWh



DC-side System Integration

Connects battery racks and their high-voltage boxes with the PCS / UPS on the DC side.

Three-level BMS (ESMU) coordinates battery management, protection and communication with the EMS.

CAN, RS485 and RJ45 Ethernet interfaces support system data communication and control.

Optional disconnect / circuit breaker arrangements allow flexible project configuration.

CABINET COMPONENTS

No.	Component	Parameter / Model	Function
1	DC breaker	630 / 1000 / 1250 A	Main circuit protection (Customizable)
2	BMS	ESMU-10 II	Display, communication and control
3	Switching power supply	35 W / 75 W, 24 V	Power supply
4	Miniature circuit breaker	S202-C64/20/10	Switching
5	Emergency stop switch	LA38-22ZS	Emergency stop protection
6	Repeater	CR-MX024DC2L	Signal control and conversion
7	LED indicator	ED16-22DSR(G/Y/R)	Status indication
8	Surge protective device (SPD)	Ex9UEP 20 3	Lightning protection
9	Fuse	DC1500/1000 V, 300 A	Protection
10	Terminal strip		Communication / power signal conversion