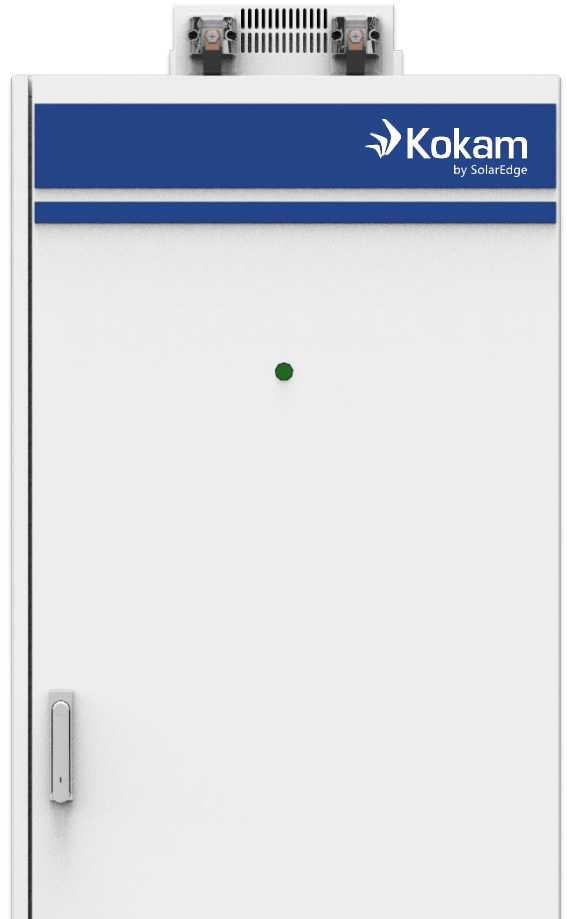


High Energy Type

# 151kWh Battery Rack



- › Excellent power-to-energy balance
- › Pre-assembled solution for ease of installation and maintenance
- › High reliability and unparalleled safety
- › Long cycle and calendar life (Over 8,000 cycles and up to 15 years\*)
- › Scalable up to multiple MWh with virtually no limit
- › Highly intelligent BMS\*\* for sophisticated system control and monitoring

\*Depending on the load profile, the warranty condition may differ

\*\*BMS: Battery Management System

# Battery Rack Specification

**Model: KRI-2C5R-200S-HE-151**

Item	Specification	Remarks	
<b>Electrical</b>			
Rack Configuration	10 modules in series	Cell: 130255255G1 (103Ah)	
Installed Energy	151kWh	-	
Usable Energy	139kWh	@ 0.5P discharge, BOL	
Nominal Voltage	736Vdc	-	
Operating Voltage Range	670 ~ 826Vdc	-	
Max. Charge Power	151kW	@ 1P, 1 Cycle	
Max. Charge Current	206A	@ 1C, 1 Cycle	
Rated Charge Power	75kW	@ 0.5P	
Rated Charge Current	103A	@ 0.5C	
Peak Discharge Power	303kW	@ 2P, ≤10 sec, ≥SOC 50%	
Peak Discharge Current	412A	@ 2C, ≤10 sec, ≥SOC 50%	
Max. Discharge Power	151kW	@ 1P, 1 Cycle	
Max. Discharge Current	206A	@ 1C, 1 Cycle	
Rated Discharge Power	75kW	@ 0.5P	
Rated Discharge Current	103A	@ 0.5C	
Round Trip DC Efficiency	>95%	@ 0.5P, BOL	
Control Power	AC 100~240V	-	
<b>Mechanical</b>			
Dimension	785 (W) x 730 (D) x 2,300 (H) mm	±5%, incl. Fuse Box	
Weight	1,300kg	±5%	
IP Grade	20	-	
<b>Communication</b>			
Communication Interface	Ethernet/RS-485/CAN2.0B	ModBus TCP/ ModBus RTU	
Monitoring	RS-232C	-	
<b>Environment</b>			
Operating Temperature	Charge	0 ~ 10°C	@ <0.2P
		10 ~ 35°C	@ <1P
		35 ~ 45°C	@ <0.5P
	Discharge	0 ~ 55°C	-
Operating Temperature		22 ~ 28°C	Recommended
Storage Humidity		< 60±25% RH	Non-condensing
Storage Temperature	1 Year	-20 ~ 25°C	SOC 50%±5%
	6 Months	25 ~ 35°C	
	3 Months	35 ~ 45°C	
	<1 Week	45 ~ 60°C	
<b>Expected Cycle &amp; Calendar Life**</b>			
Cycle Life @ DoD 90%	≥6,000 cycles	@ 25 ± 3°C, 1C/1C, SOH 70%	
Cycle Life @ DoD 80%	≥8,000 cycles	@ 25 ± 3°C, 1C/1C, SOH 70%	
Calendar Life	Up to 15 years	-	
<b>Certifications</b>			
Certifications	UL1642, CB, UL1973, UN38.3	@ Cell level	
	UL9540A	@ Cell level, available by 4Q 2020	

\*P : Power-rate / C : Current-rate

\*\*Depending on the load profile, the warranty condition may differ

## Offered Solution

System Config.*	Installed Energy	Nominal Voltage	Operating Voltage	Rated Charge Power	Rated Discharge Power	Max Charge Power	Max Discharge Power	Max Discharge Current	BCP** Required	No. of Banks***
2 Racks	303kWh	736Vdc	670 ~ 826Vdc	151kW	151kW	303kW	303kW	412A	Y	1
3 Racks	454kWh	736Vdc	670 ~ 826Vdc	227kW	227kW	454kW	454kW	618A	Y	1
4 Racks	606kWh	736Vdc	670 ~ 826Vdc	303kW	303kW	606kW	606kW	824A	Y	1
5 Racks	758kWh	736Vdc	670 ~ 826Vdc	379kW	379kW	758kW	758kW	1030A	Y	1
6 Racks	909kWh	736Vdc	670 ~ 826Vdc	454kW	454kW	909kW	909kW	1236A	Y	1
7 Racks	1061kWh	736Vdc	670 ~ 826Vdc	530kW	530kW	1061kW	1061kW	1442A	Y	1
8 Racks	1212kWh	736Vdc	670 ~ 826Vdc	606kW	606kW	1212kW	1212kW	1648A	Y	1
9 Racks	1364kWh	736Vdc	670 ~ 826Vdc	682kW	682kW	1364kW	1364kW	1854A	Y	1
10 Racks	1516kWh	736Vdc	670 ~ 826Vdc	758kW	758kW	1516kW	1516kW	2060A	Y	1
11 Racks	1667kWh	736Vdc	670 ~ 826Vdc	833kW	833kW	1667kW	1667kW	2266A	Y	1
12 Racks	1819kWh	736Vdc	670 ~ 826Vdc	909kW	909kW	1819kW	1819kW	2472A	Y	1
13 Racks	1971kWh	736Vdc	670 ~ 826Vdc	985kW	985kW	1971kW	1971kW	2678A	Y	1
14 Racks	2122kWh	736Vdc	670 ~ 826Vdc	1061kW	1061kW	2122kW	2122kW	2884A	Y	1
15 Racks	2274kWh	736Vdc	670 ~ 826Vdc	1137kW	1137kW	2274kW	2274kW	3090A	Y	1
16 Racks	2425kWh	736Vdc	670 ~ 826Vdc	1212kW	1212kW	2425kW	2425kW	3296A	Y	1
17 Racks	2577kWh	736Vdc	670 ~ 826Vdc	1288kW	1288kW	2577kW	2577kW	3502A	Y	1
18 Racks	2729kWh	736Vdc	670 ~ 826Vdc	1364kW	1364kW	2729kW	2729kW	3708A	Y	1
19 Racks	2880kWh	736Vdc	670 ~ 826Vdc	1440kW	1440kW	2880kW	2880kW	3914A	Y	1
20 Racks	3032kWh	736Vdc	670 ~ 826Vdc	1516kW	1516kW	3032kW	3032kW	4120A	Y	2
21 Racks	3183kWh	736Vdc	670 ~ 826Vdc	1591kW	1591kW	3183kW	3183kW	4326A	Y	2
22 Racks	3335kWh	736Vdc	670 ~ 826Vdc	1667kW	1667kW	3335kW	3335kW	4532A	Y	2
23 Racks	3487kWh	736Vdc	670 ~ 826Vdc	1743kW	1743kW	3487kW	3487kW	4738A	Y	2
24 Racks	3638kWh	736Vdc	670 ~ 826Vdc	1819kW	1819kW	3638kW	3638kW	4944A	Y	2
25 Racks	3790kWh	736Vdc	670 ~ 826Vdc	1895kW	1895kW	3790kW	3790kW	5150A	Y	2
26 Racks	3942kWh	736Vdc	670 ~ 826Vdc	1971kW	1971kW	3942kW	3942kW	5356A	Y	2
27 Racks	4093kWh	736Vdc	670 ~ 826Vdc	2046kW	2046kW	4093kW	4093kW	5562A	Y	2
28 Racks	4245kWh	736Vdc	670 ~ 826Vdc	2122kW	2122kW	4245kW	4245kW	5768A	Y	2
29 Racks	4396kWh	736Vdc	670 ~ 826Vdc	2198kW	2198kW	4396kW	4396kW	5974A	Y	2
30 Racks	4548kWh	736Vdc	670 ~ 826Vdc	2274kW	2274kW	4548kW	4548kW	6180A	Y	2

\*Depending on customer requirements, more than 30 racks can be connected in parallel.

\*\*BCP: Battery Connection Panel (Incl. switch disconnecter, system BMS)

\*\*\*Depending on operational requirements, the number of Banks may vary. One BCP is required per Bank.

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