

Product Specification

(H2G S5~S20-G1)

PowerSafe

Change History

■ AMENDMENT RECORDS

[illegible]

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1. Applicable Scope

This Specification (the "Document" or the "Specification") describes the product specifications of a sodium-ion rechargeable battery (the "Product" or the "PACK"). For avoidance of doubt, this specification is only applicable to S5~S20-G1 Series battery energy storage product.

The S5~S20-G1 series sodium-ion battery adopts a modular design, with a single module capacity of 2.565kWh, supporting flexible expansion; a cluster up to 8 modules, with the capacity expanding from 5.13kWh to 20.52kWh.

2. Standard Environmental Test Conditions

Unless otherwise specified, all tests stated in this Document are conducted at below conditions:

- Temperature: $25 \pm 3^{\circ}\text{C}$ ("Temperature Condition")
- Humidity: 5% -95% RH ("Humidity Condition")

Throughout this Document, numeric criteria annotated by "*" means such criteria are only applicable to fresh unused Product within 30days from manufacturing date. Products either have been used or stored for a period longer than 30 days by Customer and/or its customer may exhibit an inferior numeric parameter than such criteria. Customer agrees that such occurrence does not constitute non-conformance of specification.

3. System Description

3.1 Product Appearance



S5-S20-G1 Series Appearance

3.2 Product Specification

Technical Specifications		
Cell		
1	Cell Type	Polyanion Sodium-ion
2	Cell Capacity (Ah)	50
3	Platform Voltage (V)	2.85
4	Operating Voltage (V)	1.5~3.5
PACK		
1	Structure	1P18S
2	Nominal Capacity (Ah)	50
3	Nominal Voltage (V)	51.3
4	Voltage Range (V)	30~63
5	Nominal Energy (kWh)	2.565
6	Dimension (W*D*H)	690mm*395mm*172mm
7	Weight (kg)	47.5
Base		
1	Dimension (W*D*H) (Without adjustable supporting feet)	690mm*395mm*85mm
2	Weight (kg)	4.2
Cover		
1	Dimension (W*D*H)	690mm*395mm*160mm
2	Weight (kg)	14
3	Display	LCD
System		

1	Model	H2G S5-G1	H2G S10-G1	H2G S15-G1	H2G S20-G1
2	PACK Number	2	4	6	8
3	Base Number	1	1	1	1
4	Cover Number	1	1	1	1
5	Nominal Capacity (Ah)	100	200	300	400
6	Nominal Voltage (V)	51.3V	51.3V	51.3V	51.3V
7	Voltage Range (V)	30~63	30~63	30~63	30~63
8	Maximum Charge Current(A)	100	200	250	250
9	Maximum Discharge Current(A)	200	250	250	250
10	Nominal Energy (kWh)	5.13	10.26	15.39	20.52
11	Dimension (W*D*H, mm) (Without adjustable supporting feet)	690*395*504	690*395*784	690*395*1064	690*395*1344
12	Weight (kg)	113.2	208.2	303.2	398.2
13	Altitude	≤2000m			
14	IP Rating	IP65			
15	Optimum Operating Temperature	15~30°C			
16	Charge Operating Temperature	0~55°C			
17	Discharge Operating Temperature	-30~60°C			
18	Heat Dissipation	Natural			
19	Humidity	≤90%RH			
20	Cycle Life	≥6000 cycles @ 0.5C, 90% DOD, 80% SOH ≥8000 cycles @ 0.25C, 90% DOD, 70% SOH			

4. Storage and transportation

4.1 Storage

If it needs to be stored for a long time (more than 3 months), it should be stored in an environment with a temperature range of $-10\sim 35\text{ }^{\circ}\text{C}$ @ 85% RH Max and free of corrosive gases. It is recommended to charge and discharge it every 3 months, and keep the SOC between 50-60%. The power supply should be stored in a clean, dry, and well-ventilated warehouse, avoiding contact with corrosive substances and keeping away from sources of fire and heat. The product should avoid mechanical impact or heavy pressure from other objects.

4.2 Transport

During the transportation of the power supply, the battery should be charged at 30-60% and should not be subjected to severe mechanical impact, exposure to sunlight, rain, or inversion. During the loading and unloading process, handle with care and strictly prevent throwing, rolling, and heavy pressure.

5. Precautions for use

To prevent possible leakage, heating, and explosion of the product, please pay attention to the following preventive measures:

- 5.1 Please place the power supply in an area out of reach of children.
- 5.2 It is strictly prohibited to short-circuit the positive and negative poles of the power supply. During installation, do not connect the positive and negative poles incorrectly (the red line is positive, the black line is negative).
- 5.3 Power charging must not exceed the specified parameters.
- 5.4 Please use within the ambient temperature range of $-30\text{ }^{\circ}\text{C}\sim 60\text{ }^{\circ}\text{C}$, and charge within the ambient temperature range of $0\text{ }^{\circ}\text{C}\sim 55\text{ }^{\circ}\text{C}$. Charging below $0\text{ }^{\circ}\text{C}$ is strictly prohibited.
- 5.5 When the voltage drops below the cut-off voltage, please charge it in a timely manner, and the charging time should not exceed 12 hours.
- 5.6 Please strictly follow the operating procedures, choose a well-ventilated and open area for charging, and stay away from flammable and explosive materials.

6. Miscellaneous

*In case of any changes in the specification, no further notice will be given, and the technical agreement attached to the actual commercial contract shall prevail.