



ROBUSTE LITHIUM POWERWALL

51.2V200AH | 10.24 KWH

- More than 6000 cycles with 80% usable capacity |
- Modular design, customers can choose capacity matching |
- Independent BMS system to manage power output effectively |
- Compatible with most hybrid inverters on the market |
- Easy to install, Minimize installation costs and time |

PRODUCT INFORMATION

Robuste 51.2V200AH is an ideal solution for residential/business storage applications, with standard 51.2V/200AH specification, up to 80% usable capacity. The battery is one of the best-selling Lithium-ion batteries on the market globally. This Robuste 10.24kWh 51.2V200AH model can be used in many homes and businesses. It's reliable, affordable, slim and easy to install.

MAIN SPECIFICATIONS

BATTERY CELL SPECIFICATION			
Item	General Parameter		Remark
Rated Capacity	Typical		Standard Discharge (0.2 C ₅ A) after Standard Charge
Nominal Voltage	3.2 V		Main Operation Voltage
Internal Impedance	≤ 0.65 mΩ		Internal resistance measured at AC 1 KHz after 50% charge. The measure uses the new batteries within one week after shipment and cycles less than 5 times
Dimension	Thickness	24.5 mm	Initial Dimensions
	Width	140.5 mm	
	Height	160.5 mm	
Weight	1.15 kg		-
Standard Charge	Constant Current	0.33 C ₅ A	Charge Time: Approx. 3.5h
	Constant Voltage	3.65 V	
	0.02 C ₅ A Cut-Off		
Rapid Charge	Constant Current	1 C ₅ A	Charge Time: Approx. 1.5 @ ≥ 10°C
	Constant Voltage	3.65 V	
	0.01 C ₅ A Cut-Off		
Standard Discharge	Constant Current	0.33 C ₅ A	16.5 A
	End Voltage	2.5 V	
Maximum Discharge Current	Constant Current	2 C ₅ A	100 A @ ≥ 0°C
	End Voltage	2.5 V	
Volumetric Specific Energy	Approx. 295 Wh/L		-
Gravimetric Specific Energy	Approx. 139 Wh/Kg		-

BATTERY PACK SPECIFICATION			
Item	General Parameter		Remark
Combination Method	16S4P		-
Rated Capacity	200 Ah		Standard Discharge after Standard Charge (package)
Factory Voltage	51 V - 53 V (40-60%)		Main Operation Voltage
Voltage Discharge	40 V – 44 V		Discharge Cut-Off Voltage
Charging Voltage	56 V – 58 V		-
Internal Impedance	≤ 60 mΩ		Internal resistance measured at AC 1 KHz after 50% charge. The measure uses the new batteries within one week of shipment and cycles less than 5 times
Standard Charge	Constant Current	40 A	Charge Time: Approx. 6h
	0.02 C ₅ A Cut-Off		
Limiting Current	20 A		-
Standard Discharge	Constant Current	40 A	-
Maximum Continuous Charge Current	100 A		T≥10°C
Maximum Continuous Discharge Current	100 A		T≥10°C
Operation Temperature Range	Charge	0~45°C	60±25%R.H. Bare Cell
	Discharge	-20~55°C	
Storage Temperature Range	Less than 12 months	-10~35°C	60±25% R.H. at the shipment state
	Less than 3 months	-10~45°C	
	Less than 7 days:	-20~65°C	
Dimensions	680 x 485 x 180 (220)mm		Including Case
Weight	≈ 107 Kg		Including Case

BATTERY MANAGEMENT SYSTEM

The BMS is designed for 15/16 series lithium batteries.

The BMS has the following functions:

- Overcharge protection
- Over discharge protection
- Over current protection
- Short circuit protection
- Temperature detection
- Over temperature protection
- Current balance function
- Communication function
- Alarm function
- SOC detection function
- Storage of battery usage history

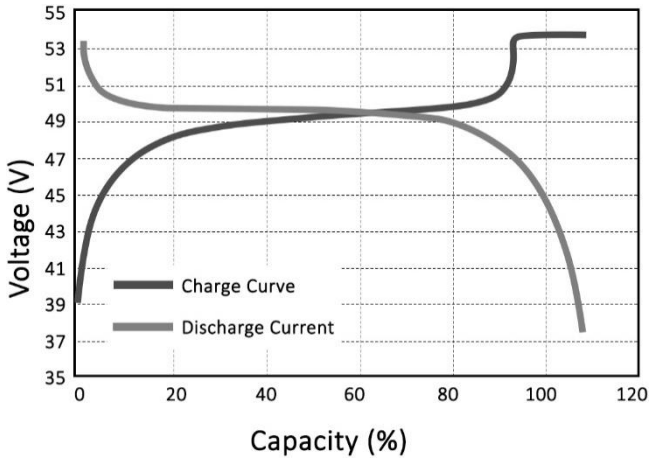
BATTERY DIMENSIONS



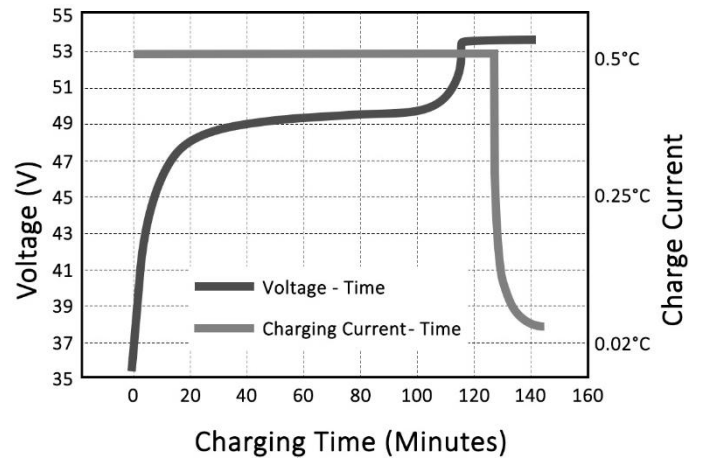


CHARGE AND DISCHARGE CURVES

CHARGE AND DISCHARGE CURVE @ 0.5C 25°C

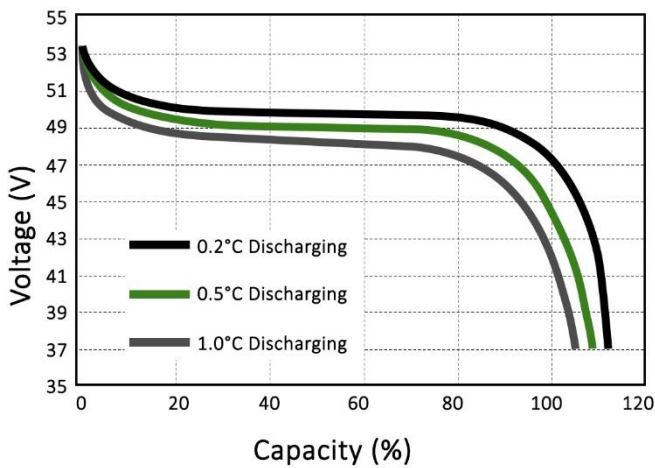


CHARGING CHARACTERISTICS @ 0.5C 25°C

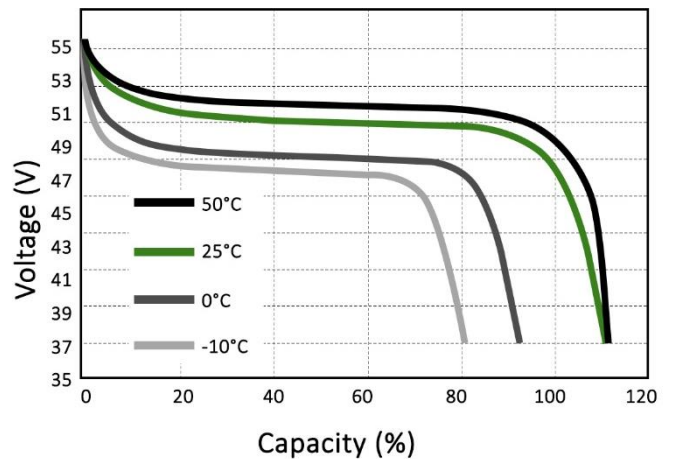


DIFFERENT CURRENT / TEMPERATURE DISCHARGE CURVES

DIFFERENT RATE DISCHARGE CURVE @ 25°C

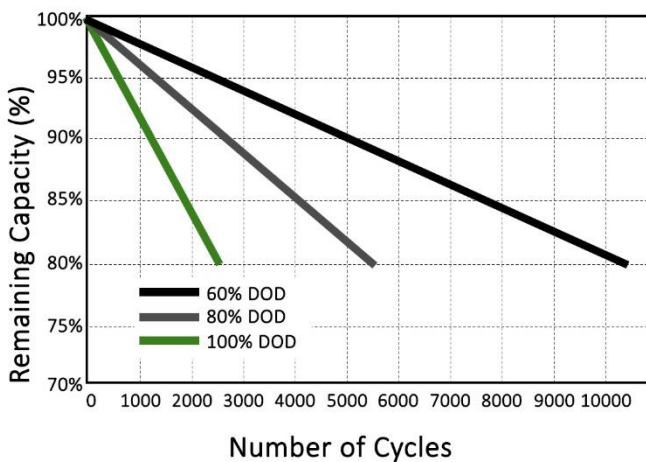


DIFFERENT TEMPERATURE DISCHARGE CURVE @ 0.5C



CYCLE LIFE CURVES

DIFFERENT DISCHARGE DEPTH LIFE CURVES @ 25°C 0.5C



DIFFERENT DISCHARGE DEPTH LIFE CURVES @ 40°C 0.5C

