

ENERGY STORAGE SYSTEMS

RACK ULTRA-5 51,2V 100Ah 100A

INDEKS: 6AES51R010
EAN: 5904100452620

Energy storage systems RACK ULTRA-5 51,2V 100Ah 100A are designed to store energy produced via photovoltaic system. They can be used in single-family houses and public space e.g. restaurants, hotels, supermarkets, factories.

The general features are:

- The use of lithium iron phosphate (LiFePO4) cells ensures long life of the device and its safety.
- Long cycle life times with 6000 cycles. This enables to charge and discharge the device while maintaining 60% of its capacity.**
- BMS (Battery Management System)** that monitors various parameters such as **voltage, current, temperature and state of charge**. It also protects the device against excessive discharge, overcharge and extreme temperatures.
- The modular design allows to connect the energy storage systems in parallel, so you can increase the capacity in case of growth energy demand.
- Modern design and small size enables the installation of device in almost every interior.

Main technical data:

MODEL	51.2V100-WM4
Nominal voltage	51,2V
Recommend charge voltage	56V
Nominal capacity	100Ah
Max charge voltage	58,4V
Energy density	5120Wh
Recommend charge current	20A
Max continuous current	100A
Terminal type	Plug-in
Terminal torque	8,5 Nm
Material	SPCC
Cycle Life (0.2C, 25°C 80% DOD)	6000 cycles
Efficiency	>98%



Certificates



Usage

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Main technical data:

MODEL	51.2V100-WM4
Discharge temperature	(-20 do 55)°C
Charge temperature	(0 do 55)°C
Storage temperature	(-20 do 45)°C
Self Discharge per Month	<3%
Max in parallel	16 pcs
Max in series	Not allowed
Netto dimensions	442x480x155mm
Netto weight	42,5kg
Gross dimensions	500x555x220mm
Gross weight	44,1kg
Multipack dimensions	1120x1120x1105mm
Multipack weight	770,6kg



Certificates



Usage

BMS characteristic:

Primary Charging Protection	Current :105A	Delay Time: 2s
Second Charging Protection	Current :110A	Delay Time: 1s
Primary Discharging Protection	Current :105A	Delay Time: 2s
Second Discharging Protection	Current :110A	Delay Time:100ms
Over charge Voltage Protection	Voltage :58.4V	Delay Time: 1~2s
Over Discharge Voltage Protection	Voltage :43.2V	Delay Time: 1~2s
Temperature Protection	Temperature PCB ≥95°C Recover≤85°C	
Communication Port	Major RS485, optional for CAN	

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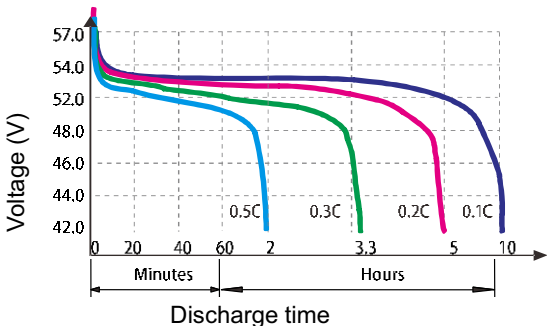
EAN: 5904100452620

Constant Current Discharge Data (Amperes 25°):

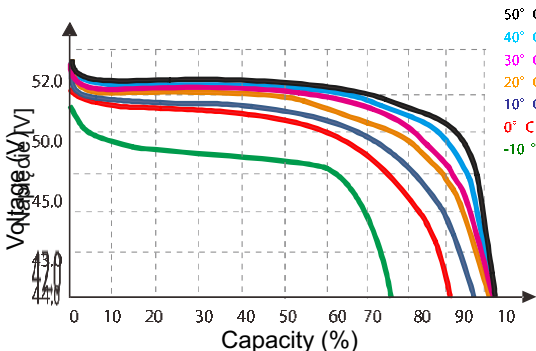
Discharge Time	Cut off voltage (43.2V)
1h	100A
2h	50A
3h	34A
4h	25A
5h	20A
10h	10A
20h	5A

Constant Power Discharge Data (Watts 25°C):

Discharge Time	Cut off voltage (43.2V)
1h	5120W
2h	2560W
3h	1706,7W
4h	1280W
5h	1024W
10h	512W
20h	256W



Discharge characteristics (25°C)



Different Temperature Discharge Curve (0.5C)

Capacity (%)

Number of Cycles

Different DOD Discharge cycle life Curve 0.2C 25°C

Voltage

Charging Time (minutes)

State of Charge Curve (0.5C, 25°C)