ULTRA-5 RACK 51,2V 100Ah (100A) 5120Wh ENERGY STORAGE

REGULAR RANGE

PRODUCT CODE
6AES51R010

EAN
5904100452620

CATEGORY
Solar inverters and energy storage systems

SUBCATEGORY
ULTRA energy storage systems (LiFePO4, for photovoltaic systems)

PRODUCT PAGE
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ABOUT THE PRODUCT

RACK ULTRA-5 51,2V 100Ah 100A (100A) 5120Wh ENERGY STORAGE is used to store energy generated by a photovoltaic system and use it later during periods of increased demand, including in the morning and evening. It enables surplus energy to be accumulated and used at the appropriate time.

The device uses lithium-iron-phosphate cells LiFePO4 and a BMS management system that monitors voltage, current, temperature and state of charge. The BMS protects the storage system against excessive discharge, overcharging and exposure to extreme temperatures. The device service life is approximately 6000 cycles while retaining at least 60% of its original capacity.

The modular design enables energy storage units to be connected in parallel and the system to be expanded as energy demand increases. The enclosure is suitable for installation in a RACK cabinet. The storage system can be used in private and public installations, including single-family homes, restaurants, hotels, supermarkets and factories.

RACK ULTRA-5 is compatible with SINUS PRO ULTRA 8000VA and 10000VA solar inverters, which generate the required 48VDC voltage. The system can be configured in accordance with the prepared instructions. The software is available at: http://voltpolska.pl/PBmsLVTools_V1.38_20241212.rar

TECHNICAL SPECIFICATIONS

General parameters	**Nominal voltage**	51,2V
	Nominal capacity	100Ah
	Energy capacity	5,12 kWh (5120 Wh)
	Cycle life	6000 cycles (0,2 C, 25°C 80% DOD)
	Efficiency	>98%
	Self-discharge (per month)	<3%
	Max. number in a parallel circuit	16 units
	Max. number in a series circuit	Not permitted

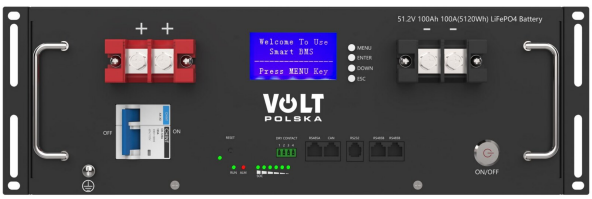
TECHNICAL SPECIFICATIONS - CONTINUED

Charging and Discharging	**Recommended charging voltage**	56,0V
	Maximum charging voltage	58,4V
	Rated operating current (charging/discharging)	50A
	Rated usable power	2,56 kW
	Maximum available continuous current	100A
	Maximum available power	5,12 kW
Protections (BMS)	**Charging protection (single cell)**	3,7V
	Overvoltage protection (entire battery)	58,4V
	Low discharge voltage protection (cell)	2,7V
	Low discharge voltage protection (battery)	43,2V
	Short-circuit protection	YES
BMS characteristics	**First charging current protection**	105A (Delay time: 2s)
	Second charging current protection	110A (Delay time: 1s)
	First discharge current protection	105A (Delay time: 1s)
	Second discharge current protection	110A (Delay time: 100ms)
	Overcharge voltage protection	58,4V (Delay time: 1–2 s)
	Overdischarge voltage protection	43,2V (Delay time: 1–2 s)
	Temperature protection	PCB temperature < 95°C, return to normal operation < 85°C
	Main communication port	CAN, optionally RS485
Operating Environment	**Charging temperature**	(0 to 55)°C
	Discharge Temperature	(-20 to 60)°C
	Storage Temperature	(-20 to 45)°C

TECHNICAL SPECIFICATIONS - CONTINUED

Physical Parameters	Dimensions (L x W x H)	442 x 480 x 155 mm
	Net Weight	42,5 kg
	Terminal Type	At terminal M8
	Terminal Torque	8,5 Nm
	Housing Material	SPCC
	Individual Package Dimensions	500 x 555 x 220 mm
	Individual Package Weight	44,1 kg

PRODUCT GALLERY









VOLT POLSKA Sp. z o.o.

ul. Świemirowska 3, 81-877 Sopot
NIP 5851458032 | REGON 221142660
KRS 0000372066

voltpolska.pl
(58) 500-85-62
hurt@voltpolska.pl
pomoc@voltpolska.pl

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