

VE-POWERSTAK

Energy Storage

All in one 3 Phase outdoor battery and inverter cabinet - 50kW/100kWh

- Versatile option to bulky battery container units
- Safe and reliable operation CATL LFP battery cells
- Double fire suppression system design
- 1 + 1 redundancy design
- Integrated BMS/EMS suitable for various applications
- Simple, user friendly operation and cloud control
- Economical and efficient with 90% DOD improving ROI
- Expandable as required (maximum of 20 systems)
- Energy saving HVAC design
- 150% Oversize PV input

Product Description

The VE-POWERSTAK is a member of the Voltek Energy' expanding range of renewable energy products. This all-in-one outdoor battery and inverter solution serves as an excellent alternative to large, cumbersome 'lorry container' BESS solutions. It provides the advantage of a more compact size while also allowing for future scalability.



Technical Data - Battery Cabinet Parameters

General Specifications	
Battery type	LFP
Battery module capacity	5.12kWh
Number of modules	10 x 2
Total battery capacity	102.4kWh
Nominal voltage	512V
Operating voltage range	448V... 576V
Charge/Discharge rate	Max. 0.5C
DoD	90%
Communication	
Communication port	Ethernet, CAN
Communication protocol	CAN, MODBUS TCP/IP
Mechanical	
Dimensions (W x D x H)	1100 x 1080 x 2380mm
Weight Installation site	<1.5T
IP protection Anti corrosion level Cooling method	Outdoors IP54 C4
Environmental	
Operation humidity	Air conditioner
Operation temperature	
Max. operation altitude	5%...95% (No condensing) -30°C...+50°C 4000m (>3000m derating)

Conformity

Standards	IEC62619-2017, UN38.3, IEC61000-6-2/4
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Technical Data - Inverter Parameters

PV side		
Max. input voltage		1000V
Max. PV input		75000W
MPPT voltage range		350V...800V
Max. current per MPPT		36A
Number of MPPT		3
Number of inputs per MPPT		2
Battery side		
Max. input voltage		750V
Min. input voltage		350V
DC voltage at nominal operation		500V...750V
Max. DC Current		50A x 2
Max. DC input power		55kW
Number of DC inputs		2
AC side (On grid)		
Nominal AC output power		50kW
Max. AC output power		55 kVA
Max. AC current		80A
Nominal AC voltage		400V
AC voltage range		360V~440V
Nominal grid frequency/frequency range		50/60Hz ±5Hz
THDv		<3% (100% load)
Adjustable PF range		-1 (lagging)...1 (leading)
AC side(Off grid)		
Nominal AC voltage		400V ±3%
THDv		<3%(linear load)
Nominal grid frequency/frequency range		50/60Hz
Nominal AC output power		50kW
Max. AC output power		55 kVA
Max. efficiency		97.5%
Protection		
Reverse connection protection		Yes
DC switch		Yes
AC switch		Yes
Over-temperature protection		Yes
Grid monitoring/ Earthing fault detection		Yes
Insulation monitoring		Yes
Surge protection		DC Type II;AC Type II

General Specifications	
Topology	Transformerless
Cooling method	Intelligent air cooling
Communication	
Communication port	RS485/CAN
Communication protocol	CAN, MODBUS
Mechanical	
Dimensions (W x D x H)	650 x 715 x 325mm
Weight	62Kg
IP protection	IP65
Noise [dB]	≤68
Operation	
humidity	0%...100% (No condensing)
temperature	-25°C...+60°C (>45°C derating)
Max. operation altitude	4000m (>3000m derating)

Conformity

Standards	IEC62477, IEC61000, CE, GB/T
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