

Product Datasheet

Voltarix All in One

Description

The VoltARIX All-In-One Solar System combines a 5kW hybrid inverter with 10kWh or 20kWh LiFePO₄ battery storage, delivering a complete and efficient energy solution for both residential and commercial applications.

Engineered for seamless integration, it supports solar power generation, energy storage, and backup in a single compact unit. With its modular design, easy installation, and intelligent energy management, VoltARIX ensures stable power supply, lower energy costs, and long-term reliability.

At VoltARIX, we go beyond standard systems — our engineering team provides tailor-made solar energy solutions that match your specific needs, ensuring every system delivers maximum performance, durability, and sustainability.



Key Features

- Integrated system design combining inverter, battery, and BMS in a single compact cabinet.
- Smart solar management automatically prioritizing solar, grid, and battery usage.
- Advanced BMS ensures precise monitoring, temperature control, and cell balancing.
- High efficiency with >95% inverter efficiency and >92% overall conversion rate.
- Seamless power backup with 10 ms transfer time between grid and inverter.
- Comprehensive protection including over-charge, over-discharge, over-temperature, and short-circuit safeguards.
- Wide operating temperature range from -15°C to +55°C with active air cooling.
- Multiple communication options: USB, RS485, WiFi / GPRS, and dry contact interfaces.
- Expandable capacity supporting up to 16 units in parallel for scalable applications.
- Sustainable and reliable design using long-life LiFePO₄ technology with a 10-year performance warranty

Specification

Model No	VLX-HESS5K10-EU		VLX-HESS5K20-EU
Battery Input Data			
Battery Type	LFP(LiFePO4)		
Nominal Capacity	10.24KWh	20.48KWh	
Max. Charging Current	80A		
Max. Discharging Current	80A		
External Temperature Sensor	YES		
Max Battery Power	80KWH		
Charging Strategy for Li-ion Battery	Self-adaption to BMS		
Grid Module			
Rated Input Voltage	220/230Vac		
Input Voltage Range	(170Vac~280Vac) ±2% (90Vac-280Vac)±2%		
Frequency	50Hz/ 60Hz (Automatically detects)		
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz); 57±0.3Hz ~ 65±0.3Hz (60Hz);		
Overload/Short Circuit Protection	disconnect		
Efficiency	>95%		
Transfer Time (Bypass and Inverter)	10ms (Typical value)		
AC Backfill Protection	YES		
Maximum Bypass Overload Current	40A		
Inverter Module			
Output Voltage Waveform	pure sine wave		
Rated Output Power	5000 (VA)		
Power Factor	1		
Rated Output Voltage	230Vac		
Output Voltage Error	±5%		
Output Frequency Range	50Hz ± 0.3Hz 60Hz ± 0.3Hz		
Efficiency	>92%		
Overload Protection	(102%< load <125%) ± 10%: report an error and shut down the output after 5 m inutes; (125%< load <150%) ± 10%: report an error and shut down the output after 10 seconds; Load >150% ±10%: report an error and shut down the output after 5 seconds;		
Peak Power	10000VA		

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On-load Motor Capacity	4HP	
Output Short Circuit Protection	breaker	
Bypass Breaker Specifications	40A	
Battery Voltage Range	40.0Vdc~60Vdc ± 0.6Vdc (Under-voltage alarm / shutdown voltage / the over-voltage alarm/ over-voltage renew...LCD Screen can be set)	
Power Saving Mode	load≤50W	
Grid Charging		
maximum-charging Current (can be set)	60A	
Charging Current Error	± 5Adc	
Charging Voltage Range	40–58Vdc	
Short Circuit Protection	Circuit breakers and blown fuses	
Circuit Breaker Specifications	40A	
Overcharge Protection	Alarm and turn off charging after 1 minute	
Solar Charge		
Maximum PV, Open Circuit Voltage	145Vdc	
PV Operating Voltage Range	60-145Vdc	
MPPT Voltage Range	60-115Vdc	
Battery Voltage Range	40-60Vdc	
Maximum Input Power	4400W	
Output Frequency Range	0-80A	
Solar Charging Current Range (can be set)	blow fuse	
Charging Short Circuit Protection	reverse polarity protection	
Maximum Hybrid Charge Current (PV+AC)	0-140A	
Maximum Hybrid Charge Current (can be set)	0-140A	
Other Specification		
Range of Working Temperature Range	-15°C to 55°C	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	5% to 95% (Three anti-paint protection)	
Noise	≤60dB	
Heat Dissipation	Forced air cooling, adjustable wind speed	
Communication Interface	USB/RS485 (WiFi/GPRS) / Dry Node Control	