

Ampaura Air-cooled Lithium Battery
Integrated Cabinet Technology
Datasheet

Energywave Technology Inc.

Version Update Record

Date	Version	Updated Description	Author
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1. Product Overview

The Ampaura rack-mounted LFP rechargeable li-ion battery system is a high-performance energy storage solution developed by Energywave Technology Inc. Designed primarily for off-grid or power-deficient areas, it is ideal for residential, community, and commercial or industrial applications. The system provides users in areas with limited or no electricity access with a reliable, stable, and eco-friendly power supply. It supports a wide range of energy storage applications, including intelligent microgrids, backup power, power quality improvement, peak shifting, and frequency regulation.

The Ampaura rack-mounted LFP battery system features advanced digital control technology and incorporates state-of-the-art power electronics. The system consists of a high energy-density battery pack, an efficient industrial-grade air conditioning unit, fire protection systems, and various auxiliary components. It is equipped with Ampaura proprietary BMS (Battery Management System) and EMS (Energy Management System), enabling intelligent monitoring and management of all subsystems and equipment. These systems handle operational data acquisition, comprehensive safety protection, cloud-based or local control, optimization of operational strategies, and efficiency improvements, ensuring the safety, stability, efficiency, and long-term reliability of the energy storage system.

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2. Product Features

- The equipment with a high ingress protection rating can be installed indoors or outdoors.
- Adopting high-quality battery cells and components.
- All-round safety protecting with a complete fire suppression system.
- Support two installation methods, forklift handling and installation as well as top hoisting.
- Support remote troubleshooting and system software optimization.
- Support the parallel operation of up to 6 battery cabinets for flexible capacity expansion.
- Achieve the certifications of IEC62619, IEC62040, IEC61000 and UN38.3 to meet the export requirements.

3. Product specifications

Item		Specification
Cell Parameters	Rated Voltage (V)	3.22
	Rated Energy (Ah)	206
	Cell Type	LFP
	Cycles	>6000(25℃,0.5C charge/0.5C discharge, 90%DOD, 80%SOH)
Battery PACK Parameters	Rated Voltage (V)	77.28
	Rated Energy (kWh)	15.91
	Cell Configuration	1P24S
	Dimension (W*H*D)mm	464*230*880
	Cooling Method	Air-cooled
	Weight (kg)	120±1kg
	IP Rating	IP54
Battery Cabinet (1 high-voltage control box plus 4 battery modules)		
Model	Vast-B63	Parameter
Battery Cabinet Parameters	Rated Voltage (V)	309.12Vdc
	Voltage Range(V)	268.8~345.6Vdc
	Cluster Configuration	1P24S-4S
	Rated Charge/Discharge Current(A)	103A
	Max. Charge/Discharge Current(A)	200A
	Rated Energy (kWh)	63.67kWh
	Rated DC power rating(kW)	30kW
	Battery Depth of Discharge	90%
	Battery Short Circuit current(A)	9372A
	Battery Max. Charge Power(kW)	30kW
	Battery Max. Discharge Power(kW)	33kW
	Communication method	CAN,RS485,WiFi/4G(Optional)
	HV BOX Voltage (V)	1000
	Working Temperature (℃)	0~+45
	Storage Temperature (℃)	-20~+45
	Humidity	0~95%RH (No condensation)
	Latitude (m)	≤3000
	Net Weight	950kg

Battery Cabinet (1 high-voltage control box plus 5 battery modules)		
Model	Vast-B79	Parameter
Battery Cabinet Parameters	Rated Voltage (V)	386.4Vdc
	Voltage Range(V)	336~432Vdc
	Cluster Configuration	1P24S-5S
	Rated Charge/Discharge Current(A)	103A
	Max. Charge/Discharge Current(A)	200A
	Rated Energy (kWh)	79.59kWh
	Rated DC power rating(kW)	36kW
	Battery Depth of Discharge	90%
	Battery Short Circuit current(A)	9690A
	Battery Max. Charge Power(kW)	36kW
	Battery Max. Discharge Power(kW)	39.6kW
	Communication method	CAN,RS485,WiFi/4G(Optional)
	HV BOX Voltage (V)	1000
	Working Temperature (°C)	0~+45
	Storage Temperature (°C)	-20~+45
	Humidity	0~95%RH (No condensation)
	Latitude (m)	≤3000
	Net Weight	1070kg

Battery Cabinet (1 high-voltage control box plus 6 battery modules)		
Model	Vast-B95	Parameter
Battery Cabinet Parameters	Rated Voltage (V)	463.68Vdc
	Voltage Range(V)	403.2~518.4Vdc
	Cluster Configuration	1P24S-6S
	Rated Charge/Discharge Current(A)	103A
	Max. Charge/Discharge Current(A)	200A
	Rated Energy (kWh)	95.51kWh
	Rated DC power rating(kW)	40kW
	Battery Depth of Discharge	90%
	Battery Short Circuit current(A)	9914A
	Battery Max. Charge Power(kW)	40kW
	Battery Max. Discharge Power(kW)	44kW
	Communication method	CAN,RS485,WiFi/4G(Optional)
	HV BOX Voltage (V)	1000
	Working Temperature (°C)	0~+45
	Storage Temperature (°C)	-20~+45
	Humidity	0~95%RH (No condensation)
	Latitude (m)	≤3000
	Net Weight	1190kg

Battery Cabinet(1high-voltage control box plus 7 battery modules)

Model	Vast-B111	Parameter
Battery Cabinet Parameters	Rated Voltage (V)	540.96Vdc
	Voltage Range(V)	470.4~604.8Vdc
	Cluster Configuration	1P24S-7S
	Rated Charge/DischargeCurrent(A)	103A
	Max. Charge/DischargeCurrent(A)	200A
	Rated Energy (kwh)	111.43kWh
	Rated DC power rating(k)	50kW
	Battery Depth of Discharge	90%
	Battery Short Circuit current(A)	10081A
	Battery Max. Charge Power(kW)	50kW
	Battery Max. Discharge Power(kW)	55kW
	Communication method	CAN,RS485,WiFi/4G(Optional)
	HV BOX Voltage (V)	1000
	Working Temperature (°C)	0~+45
	Storage Temperature (°C)	-20~+45
	Humidity	0~95%RH (No condensation)
	Latitude (m)	≤3000
	Net Weight	1310kg
Cooling System	AC Input Voltage Range	220 — 240 Vac
	AC Input Frequency	50/60 Hz
	Max Input Current	12A

Table 1 Product Parameter Table

4. Component list of Product

No.	Name	Description	QTY	Unit	Note
1	High Voltage Box	BMU+High Voltage Protection	1	pcs	
2	Air-Cooled Battery Pack	77.28Vdc/15.91kWh	4-11	pcs	
3	Equipment Accessories	Cable Raceway	1	Set	
		Battery Cable	1	Set	
		Communication Cable	1	Set	
4	Battery Cabinet	Chassis: 700mm×2200mm×1150mm	1	Set	

Table 2 Component List