



Sunwoda Forced Air Cooling Battery Container System

Introduction

Sunwoda ABCS (Air-cooling Battery Container System) is a feature-proof industrial battery system with forced air cooling shipped in a 20/40-foot container. The standard unit is prefabricated with modular battery cluster, fire suppression system, HVAC unit and local monitoring. ABCS is a ready-to-connect solution for energy storage application such as peak shifting and frequency regulation. Sunwoda battery cluster modular unit consists of standard rack-based battery module (battery pack) and a comprehensive multi-level battery monitoring system (BMS). Spec-wise, the ABCS system covers direct current (DC) voltage of 500 – 1500 VDC while covers capacity ranges from 250KWh(single cluster) to 6MWh (40Ft). The team behind ABCS is ready to help you with profession integration support with new or existing solar power, wind power, thermal power and more.



Features

- 8000 cycles or 15+ years
- Higher energy density, 40 Ft container capacity over 6MWh
- Coupled HVAC, FSS, BMS (in one container) for smooth deployment
- Sunwoda advanced LFP cell with improved charge / discharge efficiency
- Walk-in and non-walk-in design for maximized container space utilization
- Modular design, flexible configuration for easier integration and maintenance
- Extreme safety, five levels safety design, dual fire protection, with combustible gas emission and explosion venting design (NFPA 69)
- Rack level control solution solves the problem of loop current between racks, improves the availability of batteries by 7%, and supports the mixing of old and new batteries and phased deployment, and reduces LCOS by 10% during its lifetime.



Technical parameters

Cell	PowerE-1500/3337	PowerE-1500/4515	PowerE-1500/6021
Chemistry	LFP	LFP	LFP
Specifications	3.2V/142Ah	3.2V/100Ah	3.2V/280Ah
Max C-rate	0.5C	1C	1C
Cycle Life	6000 cycles@25 °C ,0.5P/0.5P	6000 cycles@25 °C , 0.5P/0.5P	8000 cycles@25 °C , 0.5P/0.5P
Dimensions (W*D*H)	148.7*70.7*116.1mm	160.4*49.9*117.9mm	174.3*71.5*206.8mm
Weight	2.65kg	2kg	5.45kg

Battery Pack

Configuration	2P12S	2P14S	1P20S
Rated Capacity	284Ah	200Ah	280Ah
Rated Voltage	38.4V	44.8V	64V
Operating Voltage	33.6V-43.2V	39.2V-50.4V	56V-72V
Rated Energy	10.905kWh	8.96kWh	17.92kWh
Max C-rate	0.5C	1C	1C
Dimensions (W*D*H)	676*590*168mm	380*830*155mm	420*850*240mm
Weight	85kg	75kg	137kg

Battery Rack

Rated Capacity	284Ah	200Ah	280Ah
Rated Voltage	1305.6V	1254.4V	1344V
Operating Voltage	1142.4V-1468.8V	1097.6V-1411.2V	1176V-1500V
Rated Energy	370.79kWh	250.88kWh	376.32kWh
Max C-rate	0.5C	1C	1C

Battery Container System

Rated Energy	3337kWh	4515kWh	6021kWh
Rated Voltage	1305.6V	1254.4V	1344V
Operating Voltage	1142.4V-1468.8V	1097.6V-1411.2V	1176V-1500V
Max C-rate	0.5C	1C	1C
Operating Temperature	-30 °C ~ 55 °C	-30 °C ~ 55 °C	-30 °C ~ 55 °C
Storage Temperature	-40 °C ~ 60 °C	-40 °C ~ 60 °C	-40 °C ~ 60 °C
Relative Humidity	0 ~ 95%	0 ~ 95%	0 ~ 95%
Altitude	≤3000m (Derating over 3000m)	≤3000m (Derating over 3000m)	≤3000m (Derating over 3000m)
Cooling Mode	Forced Air Cooling	Forced Air Cooling	Forced Air Cooling
Maintenance	Walk-in	Non Walk-in	Non Walk-in
Communication Interface	CAN/RS485/Ethernet	CAN/RS485/Ethernet	CAN/RS485/Ethernet
Communication Protocol	Modbus-RTU / Modbus-TCP/ IEC 61850	Modbus-RTU / Modbus-TCP/ IEC 61850	Modbus-RTU / Modbus-TCP/ IEC 61850
IP Level	IP54	IP54	IP54
Standards & Certifications	GB36276、UN38.3	GB36276、IEC62619 UN38.3、UL1973	GB36276、IEC62619、UL1973 UN38.3/3536、UL9540A
Dimensions (W*D*H)	12192*2438*2896mm	12192*2438*2896mm	12192*2438*2896mm

Note: Container system design can be changed according to customer requirements