

BESS

BATTERY ENERGY STORAGE SYSTEMS

solinved BYD

www.solinved.com

BYD Blade Cell C15



Product Introduction

- Adopt lithium iron phosphate as cathode material
- Excellent safety characteristics and long cycle life
- Good temperature performance, wide working temperature range of battery
- High energy density, environmentally friendly
- Widely used in commercial vehicles, passenger cars, construction machinery and energy storage related fields

Product Advantages

- Ceramic PP diaphragm technology, more resistant to puncture, more resistant to high temperature, overcharge resistance is 23% higher than traditional square shell battery
- The pole is made of ceramic technology, which has the characteristics of high temperature resistance, high pressure resistanc resistance and long service life. The comprehensive service life is more than 20 years.
- Side exhaust is designed for fast pressure relief, fast thermoelectric separation, and smaller injection impact area. And tha that design of the opposite side of the pole has no risk of short circuit.
- Ceramic coating on the edge of the pole piece to prevent burrs on the edge of the pole piece and eliminate internal short circuit

BYD Blade Cell C15

Technical Data

BYD Blade Cell		
Model	C15FKPD	C15FKSD
Material system	LiFePO4+Graphite	LiFePO4+Graphite
Rated voltage [V]	3.2V	3.2V
Nominal capacity [Ah]	320@25˚C, 1C, 2.5~3.65V	340@25˚C, 0,5C, 2.5~3.65V
Nominal energy [wh]	1024@25˚C, 1C	1088@25˚C, 0,5C
Nominal energy density	294Wh/L	309Wh/L
Length [mm]	416.0 (-1.5,+1)	416.0 (-1.5,+1)
Width [mm]	145.5 (-0.5,+1)	145.5 (-0.5,+1)
Thickness [mm]	57.5 ±0.5	57.5 ±0.5
Weight [kg]	6.68±0.2	6.6±0.2
Charging current [A]	320 (standard) 400 (maximum duration), 25˚C, 1min	170 (standard) 400 (maximum duration), 25˚C, 1min
Discharge current [A]	320 (standard) 400 (maximum duration), 25˚C, 1min	170 (standard) 400 (maximum duration), 25˚C, 1min
Maximum charging power [W]	1800W(BOL/23˚C/50%SOC/10S)	1800W(BOL/23˚C/50%SOC/10S)
Maximum discharge power [W]	2500W(BOL/23˚C/50%SOC/10S)	2500W(BOL/23˚C/50%SOC/10S)
Discharge cut cut-off voltage [V]	2.5V@ >0˚C, 2.0V@≤0˚C	2.5V@ >0˚C, 2.0V@≤0˚C
Charge cut cut-off voltage [V]	3.65V	3.65V
Operating temperature [℃]	Charge: 0 ~ + 50	Charge: 0 ~ + 50
	Discharge: -20 ~ + 55	Discharge: -20 ~ + 55
Storage humidity [℃]	5%~95%	5%~95%
Cycle life	6000cycles80%SOH Charge: 1.0C, CC, 3.65V Discharge: 1.0C, CC, 2.5V, 25˚C	8000cycles80%SOH Charge: 0.5C, CC, 3.65V Discharge: 0.5C, CC, 2.5V, 25˚C
Certification	IEC62619, UN38.3, UL1973, UL9540A GB/T 36276-2018	UL1973, UL9540A IEC62619, UN38.3, REACH-SVHC, RoSH
Elevation	≤ 4000m (> 2000m derating)	≤ 4000m (> 2000m derating)

C&I Systems Solutions

Commercial & Industrial

Commercial & Industrial Power Solutions / Large-Site Backup Systems /
Data Center Campus Storage / Flexible Deployment Storage /
Mobile Power Units



Efficient and Flexible

The LiFePO4 energy storage system delivers high safety and stable performance with smart BMS, parallel operation support, and real-time monitoring LCD display

Application Scenarios

Factories, Data centers, Hospitals, EV Charging stations, Commercial and Industrial applications, Expandable module capacity, Portable design, compact structure

Safety with BYD

Designed using BYD Blade cell technology, the system offers a high level of intrinsic safety thanks to its stable LFP chemistry and robust structural design; it significantly reduces the risk of fire, providing a reliable and safe energy storage solution

Maximum Protection

Smoke detectors, humidity sensors, and an automatic fire suppression system are integrated for enhanced safety, enabling early risk detection and rapid response

BYD solinved

C&I Systems Solutions

Technical Data

Solinved C&I Systems Datasheets				
Model	50kW/114kWh	50kW/131kWh	125kW/245kWh	125kW/262kWh
Battery Parameters				
Cell Type	LFP (3.2V 320Ah BYD Blade Cell)			
Battery Pack Configuration	1P16S			
Battery Rack Configuration	1P7S	1P8S	1P15S	1P16S
Battery System Capacity	114.68kWh	131.07kWh	245.76kWh	262.14kWh
Battery Rack Voltage Range	302.4V-403.2V	345.6V-460.8V	648.0V-864.0V	691.2V-921.6V
Cell Cycle Life	6000 Cycles at 1C, 80%DOD at 25˚C			
PV Input Parameters				
Maximum Input Power	96kW		250kW	
Maximum Input Voltage	100V			
MPPT Voltage Range	150V-850V		150V-950V	
Start-up Voltage	180V		180V	
Maximum Input Current	3*40A		10*42A	
Maximum Short-circuit Current	3*60A		10*60A	
MPPT Quantity	3		10	
Number of Strings Per MPPT Input	3/6		10/20	
Output Parameters for Inverter				
Rated Output Power	50kW		125kW	
Maximum Apparent Power	50kVA		125kVA	
Rated Output Voltage	400V,3L/N/PE			
Rated Frequency	50Hz/60Hz			
Rated Grid Output Current	76/72.2 A		189.9A/180.4A	
Maximum Grid Output Current	76/72.2 A		189.9A/180.4A	
Basic Parameters for Inverter				
Operating Tempurature Range	-25˚C~+60°C(>45°C derating)		-25˚C~+60°C(>45°C derating)	
Working Altitude	<4000m (>3000m derating)		<4000m (>3000m derating)	
Noise Figure	<45dB		<65dB	
Topology	No transformer isolation			
Cooling Method	Intelligent Fan Cooling			
Relative Humidity Range	0~100%			
Human-computer Interaction	LCD			
Cloud-based Communication	RS485 (WiFi/4G/GPRS optional)			
BMS Communication Mode	CAN			
Meter Communication Mode	RS485			
Self-consumption at Night	<35W			
Maximum Efficiency	97.8%		98.70%	
System Parameters				
Size (W*D*H)	850*1530*2200mm		1530*1530*2200mm	
Weight	1375kg	1500kg	2775kg	2900kg
Operation Ambient Temperature	-20°C~55°C			
Operation Humidity Range	0~95%			
Work Altitude	<4000m		<4000m	

1C BESS Solutions

Utility SMART BESS



Efficient and Flexible

High-efficiency heat dissipation, increase battery life and system performace. Function test in factory, minimize on-site work accelerate commissioning process

Optimal Cost

Intelligent temperature control system to optimize the auxilary power consumptium. Pre-assembled,no battery module handling on site transportation of complete system.

Safety and Reliable with BYD

Utilizing BYD Blade Cell technology, the system is designed with a high level of intrinsic safety, significantly reducing fire risk through its stable LFP chemistry and robust structural design, making it a reliable and secure energy storage solution.

C-Rate Capability

The system features a 1C charge and discharge capability, offering high efficiency and reliableenergy storage and delivery.

1C BESS Solutions

Technical Data

Solinved 1C BESS Solutions				
Model	SLV BYD 2HL	SLV BYD 3HL	SLV BYD 4HL	SLV BYD 5HL
Cell Parameters				
Cell Type	LFP 3.2V 320Ah BYD Blade			
Cell Voltage Range	2.7V-3.6V			
Cell Cycle Life	6000cycles@1c			
Pack				
PACK Configuration	SLV-64L320	SLV-64L320	SLV-64L320	SLV-64L320
PACK Capacity	320Ah			
PACK Voltage Range	172.8V-230.4V	172.8V-230.4V	172.8V-230.4V	172.8V-230.4V
Cooling Method	Liquid-cooling	Liquid-cooling	Liquid-cooling	Liquid-cooling
RACK				
RACK Configuration	2P384S	2P384S	2P384S	2P384S
RACK Capacity	320Ah			
RACK Voltage Range	1.036,8V-1.382,4V	1.036,8V-1.382,4V	1123,2V-1497,6V	1123,2V-1497,6V
System Parameter				
System Configuration	2P384S*3	2P384S*4	2P416S*5	2P416S*6
System Energy	2.36MWh	3.15MWh	4.26MWh	5.11MWh
System Voltage Range	1.036,8V-1.382,4V	1.036,8V-1.382,4V	1.123,2V-1.497,6V	1.123,2V-1.497,6V
Dimensions (L*W*H)	4615*2438*2896	6350*2438*2896	7750*2438*3246	9000*2438*3300
Weight	21.3T	29.5T	38.6T	47.2T
Ambient Temperature	-20°C ~ 55°C			
Ambient Humidity	0 ~ 95%			
Working Altitude	<4000m			
Ingress Protection	IP54			
Corrosion Protection Level	C4			
Cooling Method	Liquid-cooling	Liquid-cooling	Liquid-cooling	Liquid-cooling
Fire Suppression System	İnert Gas			

0.5C BESS Solutions

Utility SMART BESS



Efficient and Flexible

High-efficiency heat dissipation, increase battery life and system performace. Function test in factory, minimize on-site work accelerate commissioning process

Optimal Cost

Intelligent temperature control system to optimize the auxilary power consumptium. Pre-assembled,no battery module handling on site transportation of complete system.

Safe and Reliable with BYD

Utilizing BYD Blade Cell technology, the system is designed with a high level of intrinsic safety, significantly reducing fire risk through its stable LFP chemistry and robust structural design, making it a reliable and secure energy storage solution.

C-Rate Capability

Supports 0.5C charge and discharge for extended-duration and efficent operation.

0.5C BESS Solutions

Technical Data

Solinved 0.5C BESS Solutions				
Model	SLV BYD 2HL 0.5C	SLV BYD 3HL 0.5C	SLV BYD 4HL 0.5C	SLV BYD 5HL 0.5C
Cell Parameters				
Cell Type	LFP 3.2V 340Ah BYD Blade			
Cell Voltage Range	2.7V-3.6V			
Cell Cycle Life	8000cycles@0.5c			
Pack				
PACK Configuration	SLV-64L340	SLV-64L340	SLV-64L340	SLV-64L340
PACK Capacity	340Ah			
PACK Voltage Range	172.8V-230.4V	172.8V-230.4V	172.8V-230.4V	172.8V-230.4V
Cooling Method	Liquid-cooling	Liquid-cooling	Liquid-cooling	Liquid-cooling
RACK				
RACK Configuration	2P352S	2P352S	2P384S	2P384S
RACK Capacity	340Ah			
RACK Voltage Range	1.036,8V-1.382,4V	1.036,8V-1.382,4V	1123,2V-1497,6V	1123,2V-1497,6V
System Parameter				
System Configuration	2P352S*3	2P352S*4	2P384S*5	2P384S*6
System Energy	2.29MWh	3.06MWh	4.18MWh	5.01MWh
System Voltage Range	950,4V-1.267,2V	1.036,8V-1.382,4V	1.036,8V-1.382,4V	1.036,8V-1.382,4V
Dimensions (L*W*H)	4215*2438*2896	6038*2438*2896	7350*2438*3246	9000*2438*3300
Weight	21.3T	29.5T	38.6T	47.5T
Ambient Temperature	-20°C ~ 55°C			
Ambient Humidity	0 ~ 95%			
Working Altitude	<4000m			
Ingress Protection	IP54			
Corrosion Protection Level	C4			
Cooling Method	Liquid-cooling	Liquid-cooling	Liquid-cooling	Liquid-cooling
Fire Suppression System	İnert Gas			

BATTERY ENERGY STORAGE SYSTEMS (BESS)

SOLİNVED is a renewable energy technology company proudly Made in Türkiye, specializing in the development and manufacturing of solar panels, inverters, and energy storage systems.
We provide efficient energy solutions for residential, commercial, and industrial applications.

Through our strategic partnership with BYD Energy Storage, a global leader in battery technology, we integrate advanced $LiFePO_4$ energy storage solutions that deliver high safety, long lifespan, and outstanding performance.

Together with our collaborations with Deye and Solis, we offer reliable and innovative energy systems backed by comprehensive engineering, project development, and after-sales support.

Designed, Engineered and Manufactured in Türkiye.



SAFE & RELIABLE
$LiFePO_4$ cell technology for maximum safety and long lifespan.

HIGH PERFORMANCE
Advanced systems designed for superior efficiency and consistent output

STRATEGIC PARTNERSHIP
Global collaboration with BYD Energy Storage, a leader in battery technology

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