

NICKEL-ZINC

BC 2 Series UPS Battery Cabinets

BC 2

BC 2 - 300X

BC 2 - 500



ZincFive

The Power of Good Chemistry™



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- ✓ **Superior Power Density** – Approximately twice the power of lithium-ion systems, and half the linear width
- ✓ **Low Total Cost of Ownership** – Low battery maintenance and small footprint
- ✓ **Superior Reliability** – Depleted NiZn cells remain conductive, enabling reliable string operation
- ✓ **Safety** – No thermal runaway for NiZn batteries

More power, more runtime, more choices, with the BC 2 product line.

The ZincFive BC 2 lineup offers the world's leading NiZn (Nickel-Zinc) battery system with backward and forward compatibility with mission critical UPS systems.



BC 2
High-Rate



BC 2 - 300X
High-Rate Extended
Runtime



BC 2 - 500
Ultra-High-Rate

1 MW UPS system design for comparison purposes



Specifications

Battery Count	ZincFive BC 2 36s, 37s, 38s, and 39s Available	ZincFive BC 2 - 300X 36s, 37s, 38s, and 39s Available	ZincFive BC 2 - 500 36s, 37s, 38s, and 39s Available
Electrical			
Nominal Voltage	468 Vdc (36s), 481 Vdc (37s), 494 Vdc (38s), 507 Vdc (39s)		
Charge Voltage Range	537 - 555 Vdc (36s), 552 - 570 Vdc (37s), 567 - 585 Vdc (38s), 582 - 600 Vdc (39s). See the <i>Installation & Operation Manual</i> for more detail.		
Minimum and Maximum Charge Current	20 A minimum; 160 A maximum		
Standard Charging Current	80 A	90 A	
Charge Time	Ranges from 2 hours to 5 hours for 0-100% SOC, dependent on charge current		
Low Voltage Cutoff	360 Vdc - 390 Vdc - 10 Vdc per battery		
Battery Option	Z5 13-80 H S F	Z5 13-90 U S F	Z5 13-90 U S F
Nominal Capacity C/2 at 25°C	>80 Ah	>90 Ah	
Nominal Energy Storage at C/2	36 kWh (36s), 37 kWh (37s), 38 kWh (38s), 39 kWh (39s)	43 kWh (36s), 44 kWh (37s), 46 kWh (38s), 47 kWh (39s)	
Maximum Discharge Current	800 A	800 A	1200 A
Application	High-Rate discharge Less than 5 minute runtime	High-Rate discharge Greater than 5 minute runtime	Ultra-High-Rate discharge Less than 5 minute runtime
Battery Chemistry	Wet, Alkali filled		
Single String Battery Configuration	36, 37, 38, 39 battery modules per battery string		
System BMS Functions			
Monitoring	BMS manages charge functions and monitors full suite of parameters during discharge and standby including battery voltage, temperature and current.		
Power Supply	100 - 240 VAC 50/60 Hz standard. Additional 100 - 240 VAC and 600 VDC redundant supply options available		
Data Communications	Ethernet, Modbus TCP/RTU, USB, Local Server, and Cloud options		
Safety and Environmental			
Safety	Batteries exhibit no thermal runaway as per UL 9540A		
Breaker Protection	Circuit breaker is accessible with door closed and (manual or upon fault) disconnects batteries from inverter. Various kA rated breakers available depending on configuration.		
Operating Temperature Range ¹	20° C - 35° C		
Storage Temperature Range ²	-20° C - 50° C		
Storage Period	6 months at 25° C before batteries need charge		
Humidity Range	0 - 90%, Non-Condensing		
Cooling	Forced Ventilation Standard		
Certifications			
Cabinet	UL 9540, UL 1973, UL 1778, CAN/CSA C22.2 No. 107.3, IEC 62040-1, IEC 62040-2, CE, UKCA, RoHS		
Battery	UL 9540A, UL 1973, UL 1989, CAN/CSA C22.2 No. 60950-1, EU 2023/1542		
Seismic	IBC 2021, ICC AC156 – S _{es} 2.29		
Mechanical			
Height	82.5" (2096 mm) for Cabinet / 83.5" (2121 mm) with High Voltage Box		
Width	21" (533 mm)		
Depth	36" (914 mm)		
Total Max Weight (39s)	2050 lbs. (929.9 kg)	2131 lbs. (966.4 kg)	2140 lbs. (970.5 kg)

¹ Consult with ZincFive for use outside this temperature range.

² Refer to ZincFive's *BC Series UPS Battery Cabinet Service Manual* for storage details.

All specifications valid at operating temperature range and subject to change.



A safe, reliable and sustainable high-rate power technology for critical applications.