NICKEL-ZINC

Monobloc Battery

80Ah 90Ah

ZincFive

The Power of Good Chemistry™

Benefits of NiZn Technology

- **Superior Safety** – UL9540A tested with no thermal runaway and no travel restrictions
- **Reliable Chemistry** – NiZn chemistry fails conductive allowing weak or depleted cells to continue to discharge
- **High Rate Applications** – Capable of >10C discharge and 2C recharge
- **Temperature Tolerant** – Wide operating temperature range

The Power of Good Chemistry™ works when you need it most

Powerful, recyclable, non-flammable, and compact, ZincFive's nickel-zinc Monobloc Batteries are optimal for a variety of stationary, and industrial applications including backup, grid operations support, and EV charger power buffering.

80Ah

High-Rate

90Ah

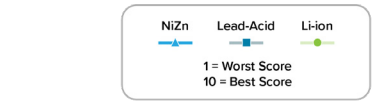
Ultra-High-Rate

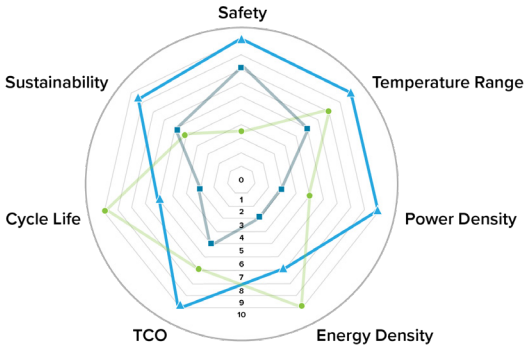
SCAN TO **WATCH VIDEO**

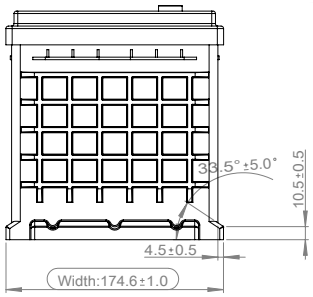
Specifications

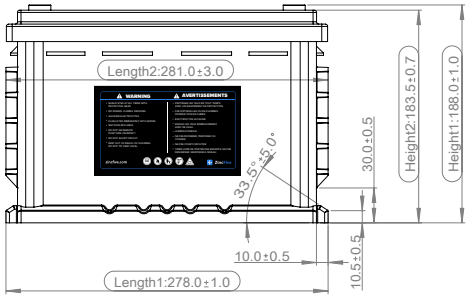
Model	High-Rate Z5 13-80 HSF	Ultra High-Rate Z5 13-90 USF
Electrical		
Nominal Voltage	13 Vdc	
Number of Cells per Battery	8 cells	
Operating Voltage Range	10 V - 15.2 V	
Nominal Capacity (1C rate)	≥80 Ah	≥90 Ah
Nominal Energy (1C rate)	1.0 kWh	1.2 kWh
Max Continuous Discharge Power (100% to 0% SoC)	8,000W (>15°C)	12,000W (>15°C)
Short Circuit Current	5,400 A	7,222 A
Cycle Life	500 (100% DoD) to 250K (1% DoD)	500 (100% DoD) to 250K (1% DoD)
Charge Voltage	CC to 15.2 Vdc; CV until 4.0 A cutoff	CC to 15.2 Vdc; CV until 4.0 A cutoff
Charge Rate	20 A – 160 A	20 A – 180 A
Discharge Rate	40 A – 800 A	40 A – 1200 A
Impedance AC (1kHz)	≤3 mΩ	≤2.3 mΩ
Chemistry	Nickel-Zinc	
Electrolyte	Starved, KOH, Aqueous (no acid)	
Lead Acid Equivalent at 80A Discharge (1C) Rate	Typical 250 Ah (C10)	
Environmental		
Operating Temperature Range	Discharge (-20°C to 50°C) Charge (0°C to 40°C)	
Storage Temperature Range	(-20°C to +50°C)	
Design Life	>15 years at 25°C	
Transport	No Transportation Restrictions	
Mechanical		
Terminal	M6 x 110mm deep threads	
Terminal Torque (Initial and annual retorque)	Initial 9.1 N-m +/- 0.9 N-m [81 lbf-in +/- 8.1 lbf-in] Annual retorque should not exceed 9.1 N-m +/- 0.9 N-m [81 lbf-in +/- 8.1 lbf-in] Assuming stainless fasteners and adequate (min 6 mm / 0.24") thread engagement.	
Length (in/mm)	10.94 in / 278.0 +/- 3.0	
Width (in/mm)	6.9 in / 174.6 +/- 3.0	
Height (in/mm)	7.4 in / 188.0 +/- 3.0	
Weight (lbs/kg)	≤35 / 16	≤40 / 18
Certifications		
UL/CSA	UL1989, CAS 22.2 No 60950-1. ANSI/CAN/UL1973 (pending)	
UL 9540A	No thermal runaway exhibited at cell-level test (Z5 13-90 USF pending)	

All Specifications Valid at 25°C Unless Otherwise Stated.
All Specifications Subject to Change









IPS **Immediate Power Solution**

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