

# HEP-DD165/175-V Prototype Cells

## High Temperature Primary Battery



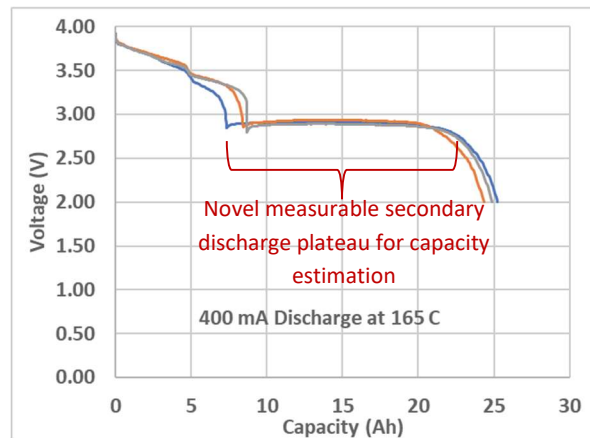
High temperature primary battery cells are designed to meet the next generation of challenging underground applications for the energy industry. HEP-DD165/175-V series cells are improved with a novel feature of multiple discharge voltage plateaus, allowing users to easily estimate battery remaining capacity based on cell voltage change. More battery product series will be available to meet applications in different temperature ranges.

### APPLICATIONS

- Power underground tools (MWD, LWD) in a wide temperature range up to 175 °C
- High vibration, high shock critical performance applications

### FEATURES and BENEFITS

- Easy *in situ* estimation of remaining capacity
- High initial working voltage
- High capacity or long service hours
- Rugged design for extreme HT vibration & shock

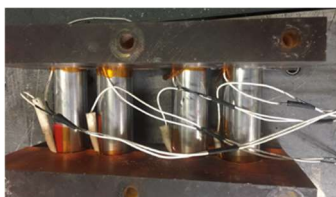


### SPECIFICATIONS

Capacity: 25 Ah nominal	Temperature: -40 to 165 °C, or 40 to 175 °C
Voltage: 3.9 V open circuit	Diameter: 1.25 inch ± 0.010 (31.8 mm)
Voltage: 3.1 V average at 400 mA	Height: 4.97 inch ± 0.050 (126.2 mm)
Voltage Discharge Plateau: 3.55 – 3.75V	Weight: 190 g ± 1
Current: 400 mA nominal	Shock Test: 1000G 0.5m in XYZ 175° 15 shock
Current: 800 mA maximum	Vibration Test: 30gRMS at 175°C

### TESTING

- Passed 175°C discharge testing under random vibration, sinusoidal vibration, and shock conditions



Left: 175°C testing Right: Live testing results

