

+ Nanophosphate[®] Lithium Ion Prismatic Pouch Cell

AMP20*M*HD-A

KEY FEATURES AND BENEFITS

- + High usable energy over a wide state of charge (SOC) range and very low cost per Watt-hour
- + Excellent abuse tolerance and superior cycle life from A123's patented Nanophosphate[®] lithium ion chemistry
- + High power with over 2,400 W/kg and 4,500 W/L



AMP20 Cell Specifications

Cell Dimensions (mm)	7.25 x 160 x 227
Cell Weight (g)	496
Cell Capacity (minimum, Ah)	19.6
Energy Content (nominal, Wh)	65
Discharge Power (nominal, W)	1200
Voltage (nominal, V)	3.3
Specific Power (nominal, W/kg)	2400
Specific Energy (nominal, Wh/kg)	131
Energy Density (nominal, Wh/L)	247
Operating Temperature	-30°C to 55°C
Storage Temperature	-40°C to 60°C

Abuse Test	Test Result
Nail Penetration	Pass – EUCAR 3
Overcharge	Pass – EUCAR 3
Over-discharge	Pass – EUCAR 3
Thermal Stability	Pass – EUCAR 4
External Short	Pass – EUCAR 3
Crush	Pass – EUCAR 3

APPLICATIONS



PHEV and EV Passenger Vehicles



PHEV and EV Commercial Vehicles



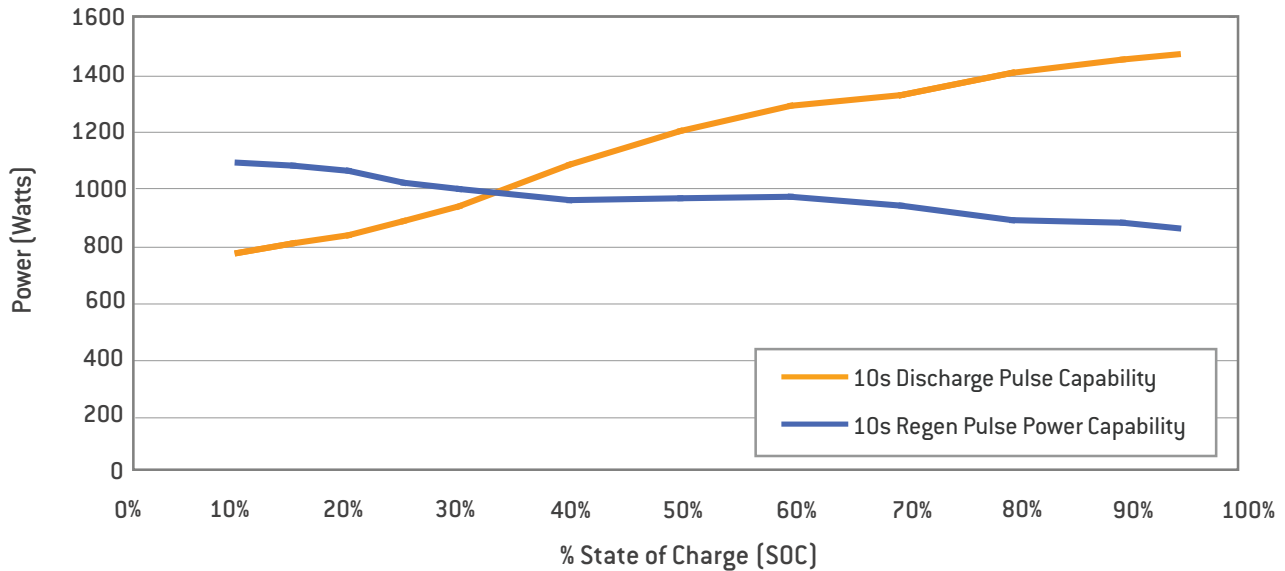
Utility-scale Storage

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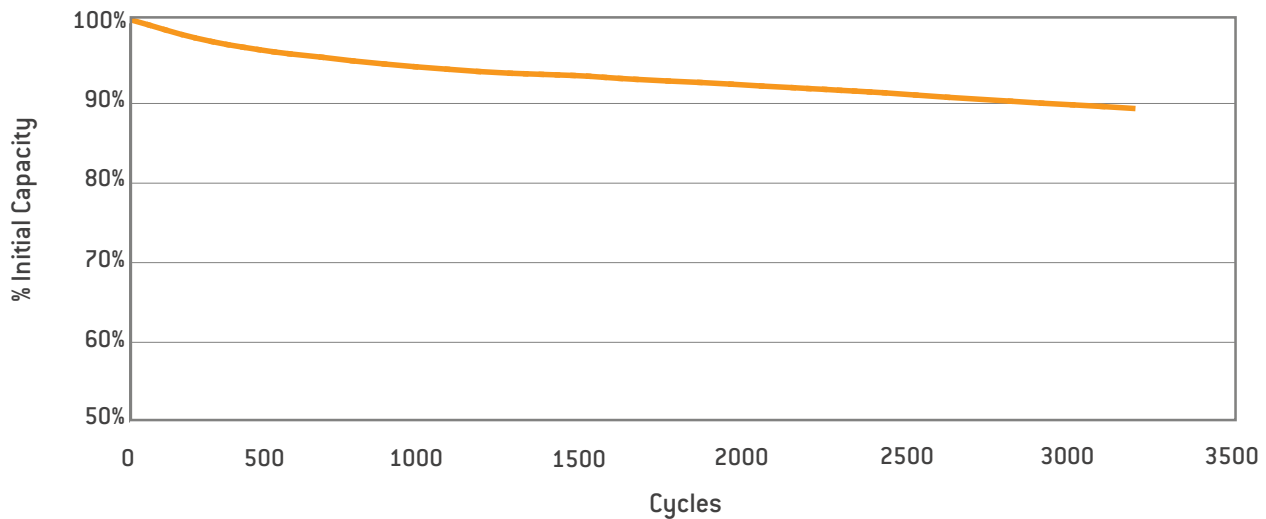
POWER

10s Pulse Power Capability vs State of Charge at 23°C, Using FreedomCAR HPPC
 $V_{max} = 3.8\text{ V}$, $V_{min} = 1.6\text{ V}$



CYCLE LIFE

Capacity vs Cycles
100% Depth of Discharge (DOD), +1C/-2C, 23°C



Preliminary specifications, performance may vary depending on use conditions and application.

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