

165-XX-LFPE04A
SERIES

Rolled-Ribbon® Li-ion Cells



165-XX-LFPE04A

XX=15

XX=28

Nominal Dimensions (D x H)	165 x 15 mm	165 x 28 mm
Li-ion Electrochemical Formulation	LFP	LFP
Nominal Voltage, Capacity (@ +23°C, 1C)	3.20 V, 22 Ah	3.20 V, 45 Ah
Energy, Capacity (@ +23°C, 1C)	70 Wh	144 Wh
Voltage Range	2.20-3.65 V	2.20-3.65 V
Charging:		
Charge Mode	CC/CV	CC/CV
Standard (@ +23°C, 1C)	22 A	45 A
Maximum Continuous (@ +23°C, 2C)	44 A	90 A
Peak < 15 sec (@ +23°C, 4C)	88 A	180 A
Temperature Range	0°C to +45°C	0°C to +45°C
Discharging:		
Standard (@ +23°C, 1C)	22 A	45 A
Maximum Continuous (@ +23°C, 5C)	110 A	225 A
Peak < 15 sec (@ +23°C, 10C)	220 A	450 A
Temperature Range	-20°C to +45°C	-20°C to +45°C
Power/Energy:		
Peak Power (@ +23°C, 10C)	723 W	1,472 W
Energy Density (@ +23°C, 1C)	221 Wh/L	242 Wh/L
Energy Density (@ +23°C, 1C)	100 Wh/kg	120 Wh/kg
Standard Power Density (@ +23°C, 1C)	221 W/L	242 W/L
Standard Power Density (@ +23°C, 1C)	100 W/kg	120 W/kg
Peak Power Density (@ +23°C, 10C)	2,287 W/L	2,478 W/L
Peak Power Density (@ +23°C, 10C)	1,032 W/kg	1,226 W/kg
Impedance:		
AC Impedance @ 1kHz	< 0.65 mΩ	< 0.33 mΩ
DCIR (@ +23°C, 50% DOD)	< 2.15 mΩ	< 1.10 mΩ
Cycle Life:		
@ +23°C, 1C/1C, 100% DOD	2,000+	2,000+
@ +23°C, 1C/1C, 80% DOD	4,000+	4,000+
Miscellaneous:		
Terminal Area	189 cm ²	189 cm ²
Cell Volume	316 mL	594 mL
Cell Weight	700 g	1,200 g
Atmospheric Pressure Operating Range	86-106 kPa	86-106 kPa

ROLLED-RIBBON® ADVANTAGE

- Maximum Power Delivery
- Minimum Heat Generation
- Unparalleled Thermal Properties
- Maximum Cycle Life
- Maximum Conversion Efficiency
- Rugged, Durable

APPLICATIONS

- High Pulse Power Systems
- Electric Vehicles
- Utility Vehicles
- Marine Vessels
- Industrial Equipment
- Transportable Power Systems
- Uninterruptible Power Systems
- Grid Energy Storage - Microgrids

Don't see what you want?

Rolled-Ribbon® cells can be made in custom sizes with custom LFP, LMO, NMC, NCA, LCO and LTO electrochemical formulations.



14141 W. Highway 290, Building #400
Austin, TX 78737 USA
+1 (512) 387-2553

info@rolled-ribbon.com

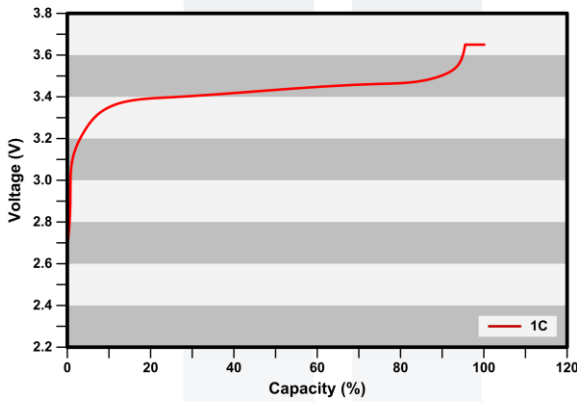
www.rolled-ribbon.com

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Rolled-Ribbon[®] Li-ion Cells

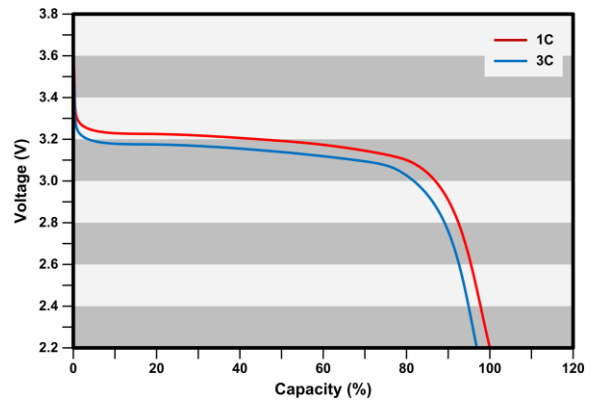
Charge Characteristics

Charge @ +23°C: CC/CV, 1C, 3.65V, 0.05C Cut-Off



Discharge Characteristics

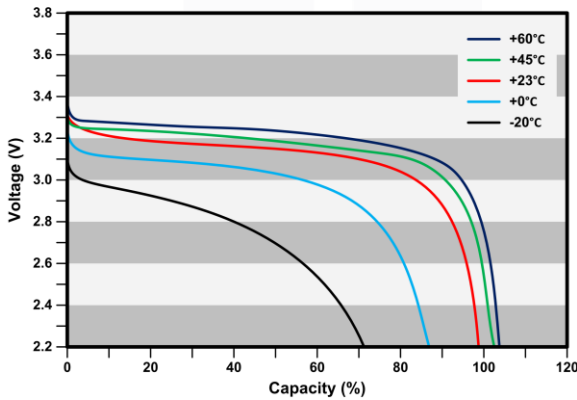
Discharge @ +23°C: CC, 1C & 3C, 2.20V Cut-Off



Temperature Characteristics

Charge @ +23°C: CC/CV, 1C, 3.65V, 0.05C Cut-Off

Discharge @ -20°C to +60°C: CC, 1C, 2.20V Cut-Off



Mechanical Characteristics

