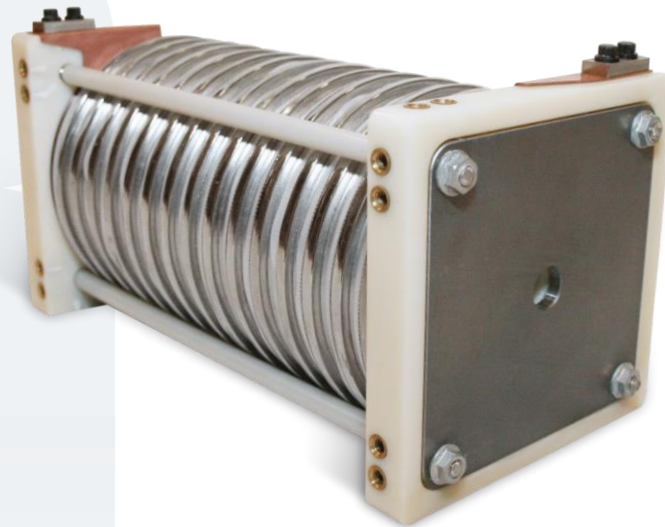


**1C15S1P-
165-XX-LFPE04A
SERIES**

Rolled-Ribbon® Li-ion Batteries



1C15S1P-165-XX-LFPE04A

XX=15

XX=28

ROLLED-RIBBON® ADVANTAGE

Configuration: 1-Column of 15-Series and 1-Parallel Cells (165-XX Cells)

Nominal Dimensions (H x W x D)	173 x 183 x 276 mm	173 x 183 x 470 mm
Li-ion Electrochemical Formulation	LFP	LFP
Nominal Voltage, Capacity (@ +23°C, 1C)	48 V, 22 Ah	48 V, 45 Ah
Energy Capacity (@ +23°C, 1C)	1.1 kWh	2.2 kWh
Voltage Range	34.5-54.7 V	34.5-54.7 V

Battery Management System:

Interfaces: CAN, RS485, Charge/Discharge, Pre-Charge, Thermal, Critical Fault

Maximum Batteries in System: 64

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)	10.5 kW	21.6 kW
Energy Density (@ +23°C, 1C)	121 Wh/L	145 Wh/L
Energy Density (@ +23°C, 1C)	89 Wh/kg	111 Wh/kg
Standard Power Density (@ +23°C, 1C)	121 W/L	145 W/L
Standard Power Density (@ +23°C, 1C)	89 W/kg	111 W/kg
Peak Power Density (@ +23°C, 10C)	1,211 W/L	1,455 W/L
Peak Power Density (@ +23°C, 10C)	887 W/kg	1,113 W/kg

DCIR (@ +23°C, 50% DOD)

	< 33 mΩ	< 17 mΩ
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Cycle Life:

@ +23°C, 1C/1C, 100% DOD	2,000+	2,000+
@ +23°C, 1C/1C, 80% DOD	4,000+	4,000+

Miscellaneous:

Battery Volume	8.7 L	14.8 L
Battery Weight	11.9 kg	19.4 kg

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



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