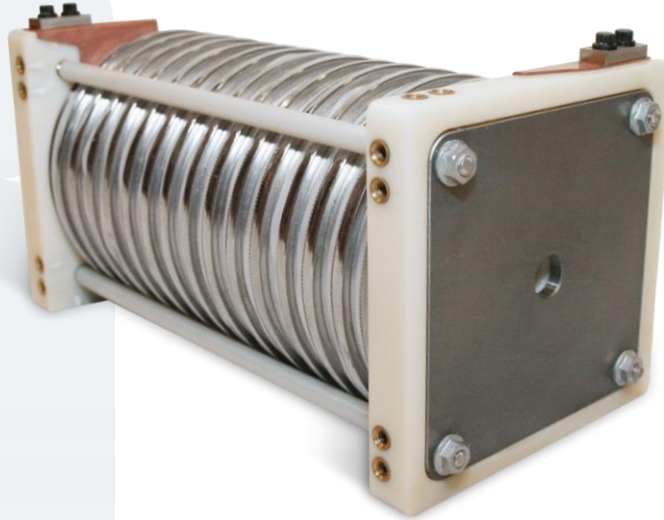


**1C15S1P-  
136-XX-LFPE04A  
SERIES**

# Rolled-Ribbon® Li-ion Batteries



## 1C15S1P-136-XX-LFPE04A

## XX=15

## XX=28

## ROLLED-RIBBON® ADVANTAGE

Configuration: 1-Column of 15-Series and 1-Parallel Cells (136-XX Cells)

Nominal Dimensions (H x W x D)	144 x 154 x 276 mm	144 x 154 x 470 mm
Li-ion Electrochemical Formulation	LFP	LFP
Nominal Voltage, Capacity (@ +23°C, 1C)	48 V, 15 Ah	48 V, 31 Ah
Energy Capacity (@ +23°C, 1C)	720 Wh	1,488 Wh
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)	15 A	31 A
Maximum Continuous (@ +23°C, 2C)	30 A	62 A
Peak < 15 sec (@ +23°C, 4C)	60 A	124 A
Temperature Range	0°C to +45°C	0°C to +45°C

Discharging:

Standard (@ +23°C, 1C)	15 A	31 A
Maximum Continuous (@ +23°C, 5C)	75 A	155 A
Peak < 15 sec (@ +23°C, 10C)	150 A	310 A
Temperature Range	-20°C to +45°C	-20°C to +45°C

Power/Energy:

Peak Power (@ +23°C, 10C)	7.2 kW	14.8 kW
Energy Density (@ +23°C, 1C)	118 Wh/L	143 Wh/L
Energy Density (@ +23°C, 1C)	96 Wh/kg	117 Wh/kg
Standard Power Density (@ +23°C, 1C)	118 W/L	143 W/L
Standard Power Density (@ +23°C, 1C)	96 W/kg	117 W/kg
Peak Power Density (@ +23°C, 10C)	1,179 W/L	1,431 W/L
Peak Power Density (@ +23°C, 10C)	960 W/kg	1,172 W/kg

DCIR (@ +23°C, 50% DOD)

< 53 mΩ	< 28 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	6.1 L	10.4 L
Battery Weight	7.5 kg	12.7 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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