



LITHIUM-ION BATTERY SYSTEM

# LIONPACK ONE

DESIGNED TO UL STANDARD – FLOOR-READY BATTERY SYSTEM

## Powerful Solutions Partner

Micropower Group is a complete system supplier of industrial Lithium-Ion batteries, battery chargers and power supplies. With own production and R&D, we take responsibility for the whole chain where we develop, design and manufacture and supply battery and battery charging products and systems to customers and distributors worldwide.

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**MICROPOWER GROUP**<sup>TM</sup>  
POWERFUL SOLUTIONS PARTNER

# LIONPACK ONE

## DESIGNED TO UL STANDARD

### FLOOR-READY BATTERY SYSTEM

After nearly a decade of proven operation across global markets, Micropower is now making its advanced battery platform available in a new, ready-to-use product line – the LionPACK ONE.

Designed as an off-the-shelf complement to the highly customizable LionBRIX platform, LionPACK ONE delivers fast availability, streamlined integration, and industry-leading performance in a standardized solution.

#### Best-in-Class Battery for Automated Vehicles

Built on Micropower's globally deployed battery architecture, LionPACK ONE combines functional safety design, intelligent power management, and seamless system integration into an off-the-shelf, future-proof battery system.

#### OVERVIEW

- EU Battery Regulation ready
- Inner tray design to fit into standard FLA trays
- Up to 1C fast / opportunity charging
- CANopen integration
- 8-year, 5,000 cycle warranty

#### CHARGING STRATEGIES

- CAN-based charging
- Charging with Charge curve
- Wireless CAN communication
- Wireless Charging

#### SAFETY IS THE PRIORITY

- Pending UL 2580 certification
- Cell Design: Current Interrupt Device (CID)
- Battery Management System (BMS): continuous monitoring
- Battery Management Unit (BMU) per module, robust
- Power Management Unit (PMU) design
- Telematics with Micropower GET System



### SIZE CHART

#### AVAILABILITY MATRIX

VOLTAGE	165 Ah	230 Ah	330 Ah	460 Ah	690 Ah	920 Ah
24V	✓	✓	✓	✓	✓	✓
36V	–	–	–	✓	✓	✓
48V	–	✓	–	✓	✓	✓

### DEMO AVAILABILITY

#### AVAILABLE DEMO CONFIGURATIONS

24V	24V	36V	36V	48V
460 Ah	690 Ah	690Ah	920Ah	920Ah

#### 30 DAY TRIAL

Use the product for 30 days at no cost to you. Evaluate performance in your realworld environment.

MINIMIZE RISK

#### DATA-DRIVEN DECISIONS

Receive detailed data and analytics that allow you to make informed decisions on fleetwide deployment.

ANALYTICS & INSIGHTS

#### EXPERT SETUP

Micropower personnel will come on-site to help set up the complete solution and ensure a smooth start.

ON-SITE SUPPORT

#### INTRODUCTORY PRICING

Demo units available at special introductory pricing to make it easy to invest in the technology.

ACCESSIBLE

# 24V LIONPACK ONE

Model	24V-W7X2-4.2	24V-W7X2-5.8	24V-W7X2-8.4	24V-W7X2-11.6	24V-W7X2-17.4	24V-W7X2-23.2
<b>Model code</b>	-	-	-	-	-	-
<b>Electrical &amp; System specifications</b>						
Voltage (Min/Nom/Max)	21/25.2/28	21/25.2/28	21/25.2/28	21/25.2/28	21/25.2/28	21/25.2/28
Nominal Energy (kWh)	4.2	5.8	8.4	5.8	5.8	5.8
Nominal Capacity (Ah)	166	230	332	460	690	920
Usable Capacity (Ah), UL certified	117	162	234	324	486	648
Continuous power (kW)	3.7	5.2	7.5	7.6	7.6	7.6
Fuse Protection (A)	200	200	400	400	400	400
Continuous Charge Current (A)	119	164	238	328	400 <sup>a</sup>	400 <sup>a</sup>
Continuous Discharge Current (A)	84	115	166	230	300	300
<b>Mechanical specifications</b>						
Dimensions (LxWXH, in mm ±2)	645x255x590	645x255x590	645x255x590	645x255x590	805x380x595	805x380x595
Dimensions (LxWXH, in inches)	25.4x10.1x23.3	25.4x10.1x23.3	25.4x10.1x23.3	25.4x10.1x23.3	31.7x14.9x23.4	31.7x14.9x23.4
Weight (kg) ±5%	135	135	135	135	227	227
Weight (lb)	295	295	295	295	500	500
<b>Enclosure specifications</b>						
Power Terminal Type	Rebling MTF 500A M8					
Power Terminal Torque	Rec 10Nm ± 1Nm					
Designed Ingress Protection	IP54					
Communication Connector	Molex 150L					
Casing	Robust 10-14 Gauge Steel Enclosure, RAL 9005					
<b>Operational specifications</b>						
Cycle Life at 25 °C	5000 cycles, 8-year warranty					
Charge Temperature (°C) <sup>b</sup>	0 to 40					
Discharge Temperature (°C) <sup>b</sup>	-20 to 40					
Storage Temperature (°C)	0 to 55					
Humidity (storage) (%)	<60					
<b>Operational specifications</b>	UL1642, UL2580, UN 38.3/ADR, IEC626219, IEC62620, EN1175, ISO13849					

<sup>a</sup> Pending UL2580 certification

<sup>b</sup> Operating temperature range is limited by UL2580 certification

# 36V LIONPACK ONE

Model	36V-L7X4-16.5	36V-W10X2-16.5	36V-W10X4-16.5	36V-L7X6-24.8	36V-W10X4-24.8	36V-L7X8-33.1	36V-W10X4-33.1
<b>Model code</b>	-	-	-	-	-	-	-
<b>Electrical &amp; System specifications</b>							
Voltage (Min/Nom/Max)	30/36/40	30/36/40	30/36/40	30/36/40	30/36/40	30/36/40	30/36/40
Nominal Energy (kWh)	16.5	16.5	16.5	24.8	24.8	33.1	33.1
Nominal Capacity (Ah)	460	460	460	690	690	920	920
Usable Capacity (Ah), UL certified	324	324	324	486	486	648	648
Continuous power (kW)	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Fuse Protection (A)	400	400	400	400	400	400	400
Continuous Charge Current (A)	328	328	328	400 <sup>a</sup>	400 <sup>a</sup>	400 <sup>a</sup>	400 <sup>a</sup>
Continuous Discharge Current (A)	300	300	300	300	300	300	300
<b>Mechanical specifications</b>							
Dimensions (LxWXH, in mm ±2)	805x380x595	950x255x590	950x435x580	805x560x580	950x435x580	800x740x575	950x435x580
Dimensions (LxWXH, in inches)	31.7x14.9x23.4	37.3x10.1x23.3	37.3x17.1x22.9	31.7x22x22.9	37.3x17.1x22.9	31.4x29.1x22.6	37.3x17.1x22.9
Weight (kg) ±5%	227	272	314	333	314	435	314
Weight (lb)	500	600a	690	733	690	959	500
<b>Enclosure specifications</b>							
Power Terminal Type	Rebling MTF 500A M8						
Power Terminal Torque	Rec 10Nm ± 1Nm						
Designed Ingress Protection	IP54						
Communication Connector	Molex 150L						
Casing	Robust 10-14 Gauge Steel Enclosure, RAL 9005						
<b>Operational specifications</b>							
Cycle Life at 25 °C	5000 cycles, 8-year warranty						
Charge Temperature (°C) <sup>b</sup>	0 to 40						
Discharge Temperature (°C) <sup>b</sup>	-20 to 40						
Storage Temperature (°C)	0 to 55						
Humidity (storage) (%)	<60						
<b>Operational specifications</b>	UL1642, UL2580, UN 38.3/ADR, IEC626219, IEC62620, EN1175, ISO13849						

<sup>a</sup> Pending UL2580 certification

<sup>b</sup> Operating temperature range is limited by UL2580 certification

# 48V LIONPACK ONE

Model	48V-L7X2-11.6	48V-L7X4-23.2	48V-L7X6-34.8	48V-L7X8-46.4
<b>Model code</b>	-	-	-	-
<b>Electrical &amp; System specifications</b>				
Voltage (Min/Nom/Max)	42/50.4/56	42/50.4/56	42/50.4/56	42/50.4/56
Nominal Energy (kWh)	11.6	23.2	34.8	46.4
Nominal Capacity (Ah)	230	460	690	920
Usable Capacity (Ah), UL certified	162	324	486	648
Continuous power (kW)	10.1	15.1	15.1	15.1
Fuse Protection (A)	200	400	400	400
Continuous Charge Current (A)	164	328	400 <sup>a</sup>	400 <sup>a</sup>
Continuous Discharge Current (A)	205	300	300	300
<b>Mechanical specifications</b>				
Dimensions (LxWXH, in mm ±2)	645x255x590	805x380x595	805x560x580	800x740x575
Dimensions (LxWXH, in inches)	25.4x10.1x23.3	31.7x14.9x23.4	31.7x22x22.9	31.4x29.1x22.6
Weight (kg) ±5%	135	227	333	435
Weight (lb)	295	500	733	959
<b>Enclosure specifications</b>				
Power Terminal Type	Rebling MTF 500A M8			
Power Terminal Torque	Rec 10Nm ± 1Nm			
Designed Ingress Protection	IP54			
Communication Connector	Molex 150L			
Casing	Robust 10-14 Gauge Steel Enclosure, RAL 9005			
<b>Operational specifications</b>				
Cycle Life at 25 °C	5000 cycles, 8-year warranty			
Charge Temperature (°C) <sup>b</sup>	0 to 40			
Discharge Temperature (°C) <sup>b</sup>	-20 to 40			
Storage Temperature (°C)	0 to 55			
Humidity (storage) (%)	<60			
<b>Operational specifications</b>	UL1642, UL2580, UN 38.3/ADR, IEC626219, IEC62620, EN1175, ISO13849			

<sup>a</sup> Pending UL2580 certification

<sup>b</sup> Operating temperature range is limited by UL2580 certification