





M HRESYS Integrated Lithium-ion Battery

Model: VHR ES12120LFP

ES-LFP Series Lithium-ion Battery is an ideal replacement for traditional lead acid battery utilising advanced LiFePO4 technology and integrated BMS with the benefits of long cycle life, light in weight, safety and excellent high and low temperature performance. ES-LFP Series Lithium-ion Battery is widely used in energy storage, UPS, golf cart and other lead acid battery replacement.



Superior Character

- Super Long Service Life
- High Safety Ensured by Smart BMS
- Fast Charge and High Rate Discharge Power
- Low Total Cost of Ownership (TCO)

- · High Energy Density by Adopting LFP Cells
- High Cycle Round Trip Efficiency (RTE)
- Wide Working Temperature Range
- Maintenance Free



General Specification

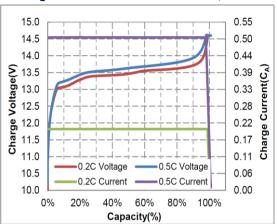
Floatrical Characteristics

Electrical Characteristics	
Nominal Voltage	12.8V
Nominal Capacity@0.2C	120Ah
Energy	1536Wh
Internal Resistance	≤45mΩ
Cycle Life	≥3000 Cycles
Months Self Discharge	≤3.5% per month at 25°C
Mechanical	
Cell & Method	IFR32700 N60, 15S20P
Plastic Case	ABS
Dimension(L \times W \times H \times TH)	409 × 177 × 224 × 224mm
Weight	Approx. 14.6Kg
Terminal	M8
Standard Charge	
Charge Voltage	$14.6 \pm 0.2 \text{V}$
Charge Mode(CC/CV)	At 0℃~45℃ temperature, charged to 14.6V at a constant current of 0.2C, and then charged continuously with constant voltage of 14.6V until the current was not more than 0.02C.
Charge Current	24A
Max. Charge Current	60A
Standard Discharge	
Discharge Current	24A
Max. Continuous Current	100A
Max. Pulse Current	200A(<3\$)
Discharge Cut-off Voltage	10.0V
Operating Environment	
Charge Temperature	0° C to 45° C(32° F to 113° F) @60±25% Relative Humidity
Discharge Temperature	-20°C to 60°C(-4°F to 140°F) @60±25% Relative Humidity
Storage Temperature	0°C to 45°C(32°F to 113°F) @60±25% Relative Humidity
Water Dust Resistance	IP55
Protection Parameter	
Over-current Protection Current	300A
Over-charge Protection Voltage	15.2V
Over-discharge Protection Voltage	9.2V
High Temperature Protection	65 ℃

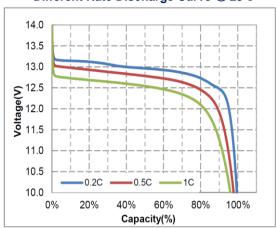


HRESYS Integrated Lithium-ion Battery

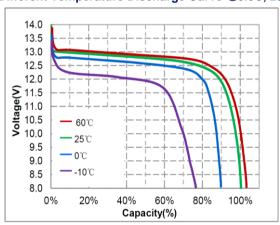
Charge Characteristics @0.2C&0.5C, 25℃



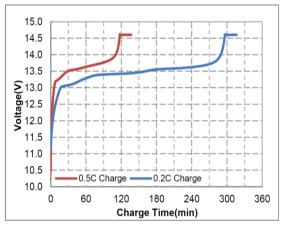
Different Rate Discharge Curve @ 25°C



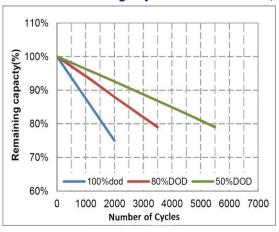
Different Temperature Discharge Curve @0.5C, 25℃



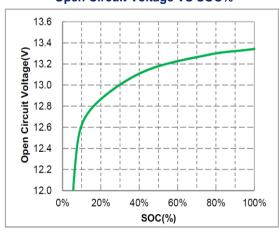
Charge Characteristics @0.2C&0.5C, 25℃



Different DOD Discharge Cycle Life Curve @0.5C, 25℃



Open Circuit Voltage VS SOC%



Standard Compliance











Aeson Power Pty Ltd 18/40 Ricketts Rd, Mount Waverley, VIC 3149

Email: info@aesonpower.com.au Web: aesonpower.com.au

Phone: (03) 9545 5993

