## **Battery SKU:9473**



### 51.2V100Ah

#### LiFePO<sub>4</sub> Lithium Battery

**Longer Cycle Life:** Offers up to 15 times longer cycle life and 5 times longer float/calendar life than lead acid battery.

**Lighter Weight:** About 40% weight of a comparable lead acid battery, save up to 60% in weight.

Quick Charge: Short charge time compared with lead acid battery.

**Low Self-Discharge:** Lower self-discharge compared with lead acid battery, longer storage time without recharging.

**Superior Safety:** Multi-protection methods built inside to protect the battery from overcharge, over discharge and short circuit situation.

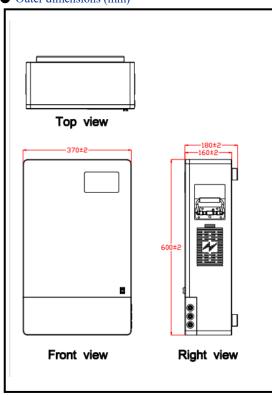
**High Efficient:** Higher round-trip energy efficiency of the average (92%) than lead acid battery 80% (discharge from 100% to 0% and back to 100% charged).



#### Specifications

Nominal voltage		48V
Nominal capacity		100Ah
Dimensions	Length	370±2mm (13.78inch)
	Width	160±2mm (7.48inch)
	Height	600±2mm (19.69inch)
	Total height	600±2mm (19.69inch)
Approx. weight		42.2kg (93.03lbs)±2kg

#### • Outer dimensions (mm)

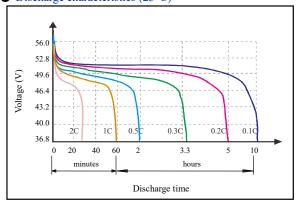


#### Characteristics

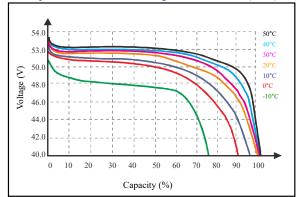
Rated Capacity (C <sub>5</sub> )   100Ah@25°C     Electrical Parameters (25°C)   Energy   5120Wh     Months Self Discharge   <3%     Charge Efficiency   99.5%@ 0.2C     Discharge Efficiency   96-99%@ 1C     Terminal Diameter   M8     Internal resistance (Fully charged, 25°C)   ≤200mΩ     Cycle life   >3000 cycles @ 0.2C 100%D.O.D     Capacity affected by temperature   25°C   100%     Gapacity affected by temperature   25°C   100%     Charge   Discharge   -20°C   60°C (-4°F ~ 140°F)     Operating temperature   Charge   0°C ~ 45°C (32°F ~ 113°F)     Tange   Storage   0°C ~ 40°C (32°F ~ 104°F)     Water Dust Resistance   IP50     Charge Voltage   57V     Standard Charge Mode (25°C±2°C, <75%RH)   0.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes     Charge Current   20A     Maximum Charge Current   50A     Charge Cut off Voltage   57V     Continuous Discharge Current   100A     Maximum Pulse Current   150A (<1S)     Discharge Cut Off Voltage   46V     Communicate Protocol (optional)   RS485/RS232/CAN     SOC (optional)   Screen/LED/PC Software     Application connection   1 string 1 parallel     Cells   16 Strings     Container   Metal		Rated Voltage	51.2V
Electrical Parameters (25°C)			
Parameters (25°C)	Parameters		<u> </u>
Charge Efficiency         99.5%@ 0.2C           Discharge Efficiency         96-99%@ 1C           Terminal Diameter         M8           Internal resistance (Fully charged, 25°C)         ≤200mΩ           Cycle life         >3000 cycles @ 0.2C 100%D.O.D           Capacity affected by temperature         40°C         101%           Capacity affected by temperature         0°C         90%           Nominal operating temperature         25°C± 3°C (77°F± 5°F)           Operating temperature range         Discharge         -20°C~ 60°C (-4°F ~ 140°F)           Operating temperature range         Charge         0°C~ 45°C (32°F ~ 113°F)           Water Dust Resistance         IP50           Charge Voltage         57V           Standard Charge Mode (25°C±2°C, <75%RH)			
Discharge Efficiency   96-99%@ 1C     Terminal Diameter   M8     Internal resistance (Fully charged, 25°C)   ≤200mΩ     Cycle life   >3000 cycles @ 0.2C 100%D.O.D     Capacity affected by temperature   0°C   101%     Capacity affected by temperature   0°C   75%     Nominal operating temperature   25°C±3°C (77°F±5°F)     Operating temperature   Charge   0°C~45°C (32°F~140°F)     Water Dust Resistance   IP50     Charge Voltage   57V     Standard Charge Mode (25°C±2°C, <75%RH)   0.2CA Constant Current to 57V, then Constant Voltage 57V     Until the current drops to 0.02CA, before use, rest 30 minutes     Charge Current   20A     Maximum Charge Current   50A     Charge Cut off Voltage   57V     Continuous Discharge Current   100A     Maximum Pulse Current   150A (<1S)     Discharge Cut Off Voltage   46V     Communicate Protocol (optional)   RS485/RS232/CAN     SOC (optional)   Screen/LED/PC Software     Application connection   1 string 1 parallel     Cells   16 Strings			<u> </u>
Terminal Diameter  Internal resistance (Fully charged, 25°C)  Cycle life  3000 cycles @ 0.2C 100%D.O.D  40°C  101%  Capacity affected by temperature  0°C  90%  100%  Nominal operating temperature  25°C± 3°C (77°F± 5°F)  Operating temperature  Charge  Charge  Storage  0°C~ 45°C (32°F ~ 140°F)  Water Dust Resistance  IP50  Charge Voltage  Standard Charge Mode (25°C±2°C, <75%RH)  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  20A  Maximum Charge Current  50A  Charge Cut off Voltage  Continuous Discharge Current  100A  Maximum Pulse Current  150A (<1S)  Discharge Cut Off Voltage  Communicate Protocol (optional)  RS485/RS232/CAN  SOC (optional)  Cells  16 Strings			<u> </u>
Internal resistance (Fully charged, 25°C)       ≤200mΩ         Cycle life       >3000 cycles @ 0.2C 100%D.O.D         Cycle life       >3000 cycles @ 0.2C 100%D.O.D         Capacity affected by temperature         10°C       100%         90%         -10°C       75%         Nominal operating temperature       25°C± 3°C (77°F± 5°F)         Operating temperature       0°C~ 60°C (-4°F ~ 140°F)         Charge       0°C~ 45°C (32°F ~ 113°F)         Water Dust Resistance       IP50         Charge       0°C~ 40°C (32°F ~ 104°F)         Water Dust Resistance       IP50         Charge Voltage       57V         O.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes         Charge Current       50A         Charge Current       50A         Charge Current       50A         Continuous Discharge Current       100A         Maximum Pulse Current       150A (<1S)		Discharge Efficiency	96-99%@ 1C
Cycle life >3000 cycles @ 0.2C 100%D.O.D    Capacity affected by temperature	Terminal Diameter		M8
Capacity affected by temperature    Capacity affected by temperature	Internal resistance (Fully charged, 25°C)		≤200mΩ
Capacity affected by temperature  0°C 90%  -10°C 75%  Nominal operating temperature  25°C± 3°C (77°F± 5°F)  Operating temperature  Charge Charge 0°C~ 45°C (32°F ~ 140°F)  Water Dust Resistance  Charge Voltage  Charge Wode (25°C±2°C, <75%RH)  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Maximum Charge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  Application connection  1 string 1 parallel  Cells  Mechanical	Cycle life		>3000 cycles @ 0.2C 100%D.O.D
affected by temperature    O°C   90%    -10°C   75%		40°C	101%
temperature 0°C	affected by	25°C	100%
Nominal operating temperature  Operating temperature  Charge  Charge  O°C~ 40°C (32°F~113°F)  Water Dust Resistance  Charge Voltage  Charge Woltage  Storage  O°C~ 40°C (32°F~104°F)  Water Dust Resistance  IP50  Charge Voltage  57V  O.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes  Charge Current  Charge Current  Discharge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Application connection  Society 20°C~ 40°C (32°F~140°F)  0.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes  100A  SOA  Charge Cut off Voltage  57V  Continuous Discharge Current  100A  Maximum Pulse Current  150A (<1S)  Discharge Cut Off Voltage  Communicate Protocol (optional)  Screen/LED/PC Software  Application connection  1 string 1 parallel  Cells  Mechanical		0°C	90%
Operating temperature range  Charge  Charge  Charge  O°C~ 45°C (32°F ~ 113°F)  Storage  O°C~ 40°C (32°F ~ 104°F)  Water Dust Resistance  IP50  Charge Voltage  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Maximum Charge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Mechanical  Discharge Curison  Charge Curlent  Charge Current  SOA  Charge Current  SOC (optional)  Cells  Cells  Conception Curcen Conception  Charge Curcen Conception  Charge Curcen Conception  Charge Curcent  SOC (32°F ~ 113°F)  O°C~ 40°C (32°F ~ 113°F)  O°C~ 40°C (32°F ~ 110°F)  Charge Curcent to 57V  Until the current drops to 0.02CA, before use, rest 30 minutes  COA  SOA  Charge Curcent  SOA  Charge Curcent  SOA  Continuous Discharge Current  SOA  Continuous Discharge Current  SOA  Communicate Protocol (optional)  Screen/LED/PC Software  Application connection  1 string 1 parallel  Cells  Mechanical		-10°C	75%
temperature range  Charge  Storage  O°C~ 45°C (32°F ~ 113°F)  Water Dust Resistance  IP50  Charge Voltage  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Maximum Charge Current  Charge Current  Discharge Current  Maximum Pulse Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Cells  O°C~ 45°C (32°F ~ 113°F)  O°C~ 40°C (32°F ~ 113°F)  O°C~ 45°C (32°F ~ 113°F)  O°C~ 40°C (32°F ~ 104°F)  O°C~ 40°C (25°C, (75°F)  O°C~ 40°C (25°F)  O°C~ 40°C (25°F)  O°C~ 40°C (25°F)  O°C~ 40°C (25°C, (25°F)  O°C~ 40°C (25°F)  O°C~ 40°C (25°F)  O°C~ 40°C (25°F)  O°C~ 40°C (25°F)  O	Nominal operating temperature		25°C± 3°C (77°F± 5°F)
temperature range  Storage  O°C~ 45°C (32°F ~ 113°F)  Water Dust Resistance  IP50  Charge Voltage  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Charge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Mechanical  Storage  O°C~ 45°C (32°F ~ 113°F)  O°C~ 40°C (32°F ~ 104°F)  O°C~ 40°C (22°F ~ 104°F)  O°C~ 40°C (22°F)  O°C~ 40°C (22°F)  O°C~ 40°C (22°F)  O°C~ 40°C (22°F)  O°C~ 40°C (22°F ~ 104°F)  O°C~ 40°C (22°F)  O°C	Operating	Discharge	- 20°C~ 60°C (-4°F ~ 140°F)
Water Dust Resistance  Charge Voltage  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Socreen/LED/PC Software  Mater Dust Resistance  IP50  0.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes  Charge Current  50A  Charge Cut off Voltage  57V  Continuous Discharge Current  100A  Maximum Pulse Current  150A (<1S)  Discharge Cut Off Voltage  46V  Communicate Protocol (optional)  Screen/LED/PC Software  Application connection  1 string 1 parallel  Mechanical	1 0	Charge	0°C~ 45°C (32°F ~ 113°F)
Charge Voltage  Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Maximum Charge Current  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Application connection  Standard Charge Mode (1.25°C±2°C, <75%RH)  0.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes  100A  SOA  Charge Cut off Voltage  57V  Continuous Discharge Current  100A  Maximum Pulse Current  150A (<1S)  Discharge Cut Off Voltage  46V  Communicate Protocol (optional)  Screen/LED/PC Software  Application connection  1 string 1 parallel  Cells  Mechanical	range	Storage	0°C~40°C (32°F~104°F)
Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Application connection  Standard Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes  20A  Maximum Charge Current  50A  Charge Cut off Voltage  57V  Continuous Discharge Current  100A  Maximum Pulse Current  150A (<1S)  Discharge Cut Off Voltage  46V  Communicate Protocol (optional)  Screen/LED/PC Software  Application connection  1 string 1 parallel  Cells  Mechanical	Water Dust Resistance		IP50
Standard Charge Mode (25°C±2°C, <75%RH)  Charge Current  Charge Current  Charge Cut off Voltage  Continuous Discharge Current  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  Application connection  Standard Charge Mode then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes  20A  Maximum Charge Current 50A  Charge Cut off Voltage 57V  Continuous Discharge Current 150A (<1S)  Discharge Cut Off Voltage 46V  Communicate Protocol (optional)  Screen/LED/PC Software  Application connection 1 string 1 parallel  Cells  Mechanical	Charge Voltage		57V
Maximum Charge Current 50A  Charge Cut off Voltage 57V  Continuous Discharge Current 100A  Maximum Pulse Current 150A (<1S)  Discharge Cut Off Voltage 46V  Communicate Protocol (optional) RS485/RS232/CAN  SOC (optional) Screen/LED/PC Software  Application connection 1 string 1 parallel  Mechanical Cells 16 Strings			then Constant Voltage 57V until the current drops to 0.02CA,
Charge Cut off Voltage 57V  Continuous Discharge Current 100A  Maximum Pulse Current 150A (<1S)  Discharge Cut Off Voltage 46V  Communicate Protocol (optional) RS485/RS232/CAN  SOC (optional) Screen/LED/PC Software  Application connection 1 string 1 parallel  Mechanical Cells 16 Strings	Charge Current		20A
Continuous Discharge Current  Maximum Pulse Current  150A (<1S)  Discharge Cut Off Voltage  Communicate Protocol (optional)  SOC (optional)  SOC (optional)  Application connection  Cells  Cells  100A  150A (<1S)  RS485/RS232/CAN  SOC (optional)  Screen/LED/PC Software  1 string 1 parallel  16 Strings	Maximum Charge Current		50A
Maximum Pulse Current 150A (<1S)  Discharge Cut Off Voltage 46V  Communicate Protocol (optional) RS485/RS232/CAN  SOC (optional) Screen/LED/PC Software  Application connection 1 string 1 parallel  Mechanical Cells 16 Strings	Charge Cut off Voltage		57V
Discharge Cut Off Voltage			100A
Communicate Protocol (optional)   RS485/RS232/CAN	Maximum Pulse Current		150A (<1S)
SOC (optional)   Screen/LED/PC Software	Discharge Cut Off Voltage		46V
Application connection 1 string 1 parallel  Cells 16 Strings	Communicate Protocol (optional)		RS485/RS232/CAN
Mechanical Cells 16 Strings	SOC (optional)		Screen/LED/PC Software
Mechanical	Application connection		1 string 1 parallel
Container Metal	Mechanical	Cells	16 Strings
		Container	Metal

# **Battery SKU:9473**

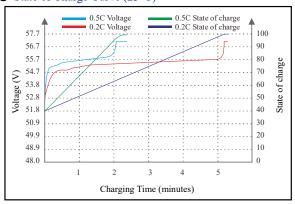
#### Discharge characteristics (25°C)



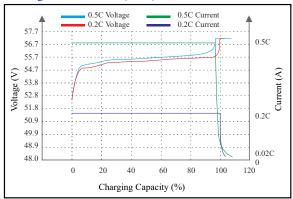
#### • Temperature affect on discharge characteristics (0.5C)



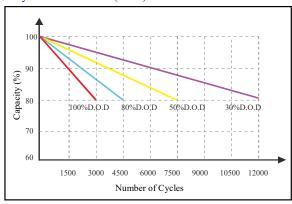
#### • State of Charge Curve (25°C)



#### Charge characteristics (25°C)



#### • Cycle life on D.O.D (25°C)



#### Self Discharge Characteristics Curve

