

51.2V

30/50/75/80/100/120/150Ah

RACK MOUNTED LI-ION BATTERY



SAFETY

- + Prismatic LiFePO₄ cells, Longer cycle life and much more safety.
- + Low voltage system, safety for application.
- + IEC62619, UL1642, UN38.3 certification for cell.
- + UN38.3 certification for system.



DESIGN

- + Standard 19" rack design.
- + Flexible and easily installation.
- + -20~+55°C widely temperature range.
- + Maintenance free.



SCALABILITY

- + Parallel support for more energy.
- + Optional accessories for LCD display, MCB, GPS Anti-theft.



BATTERY MANAGEMENT SYSTEM

- + Independent protection for charge and discharge.
- + SOC, SOH display and PC software for detailed operation.
- + OVP, LVP, OCP, OTP, LTP protection.
- + RS232, RS485, CAN communication port.

For more information, contact with: sales@ritarpower.com

51.2V30Ah

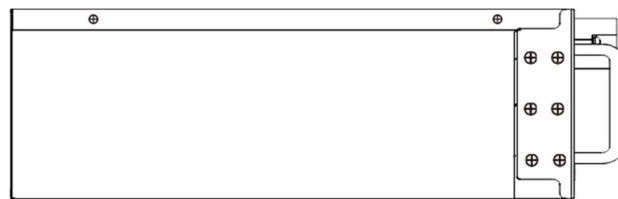
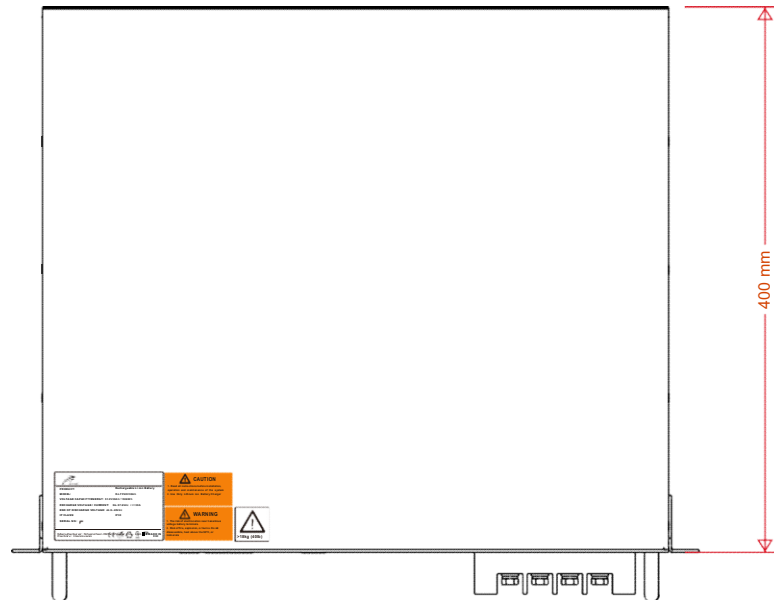
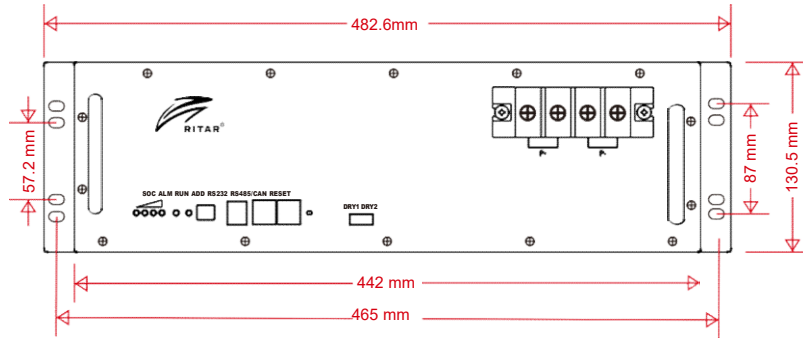
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512003002
Model	R-LFP48V30Ah
Cell Type	LFP Prismatic cell 30Ah
Internal Connection	1P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	30
Total Energy [Wh]	1536
Dimension (W*D*H, mm)	442*400*130.5
Weight [Kg]	17
Max. Charging Current [A]	30
Max. Discharging Current [A]	30
Pulse Discharge Current	45A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) / 48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V30Ah Dimension

Part Number: 8010512003001



The datasheet is subject to change without prior notification

51.2V50Ah

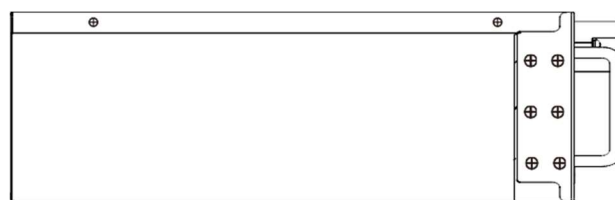
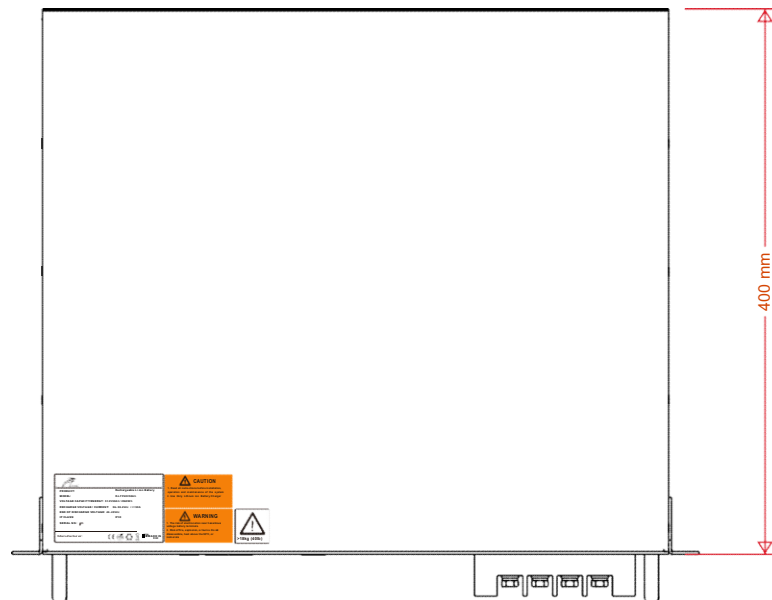
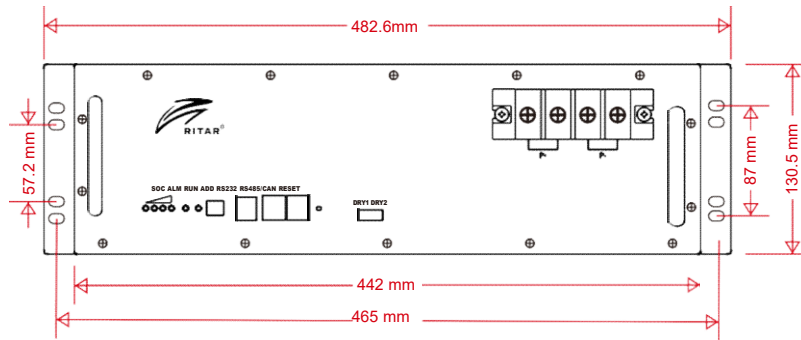
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512005001
Model	R-LFP48V50Ah
Cell Type	LFP Prismatic cell 50Ah
Internal Connection	1P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	50
Total Energy [Wh]	2560
Dimension (W*D*H, mm)	442*400*130.5
Weight [Kg]	31.2
Max. Charging Current [A]	50
Max. Discharging Current [A]	50
Pulse Discharge Current	70A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V50Ah Dimension

Part Number: 8010512005001



51.2V75Ah

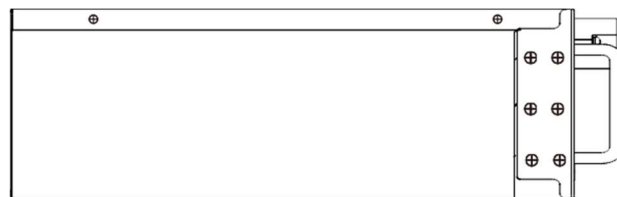
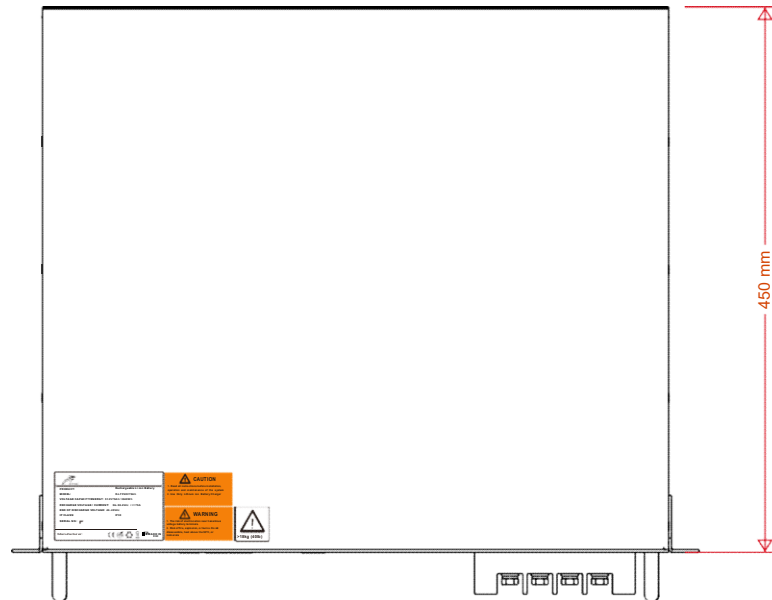
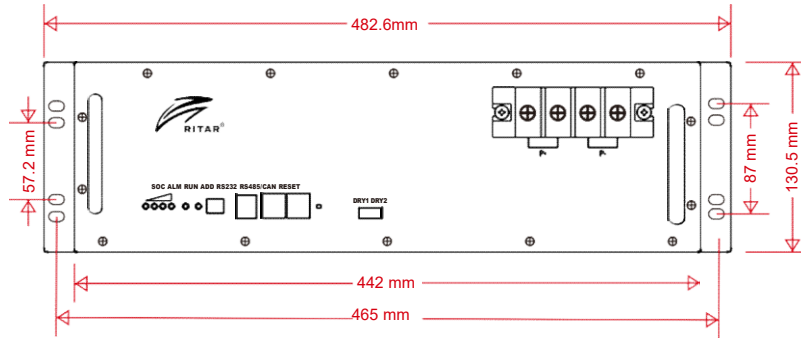
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512007501
Model	R-LFP48V75Ah
Cell Type	LFP Prismatic cell 38Ah
Internal Connection	2P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	75
Total Energy [Wh]	3840
Dimension (W*D*H, mm)	442*450*175
Weight [Kg]	39.1
Max. Charging Current [A]	75
Max. Discharging Current [A]	75
Pulse Discharge Current	120A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V75Ah Dimension

Part Number: 8010512007501



51.2V80Ah

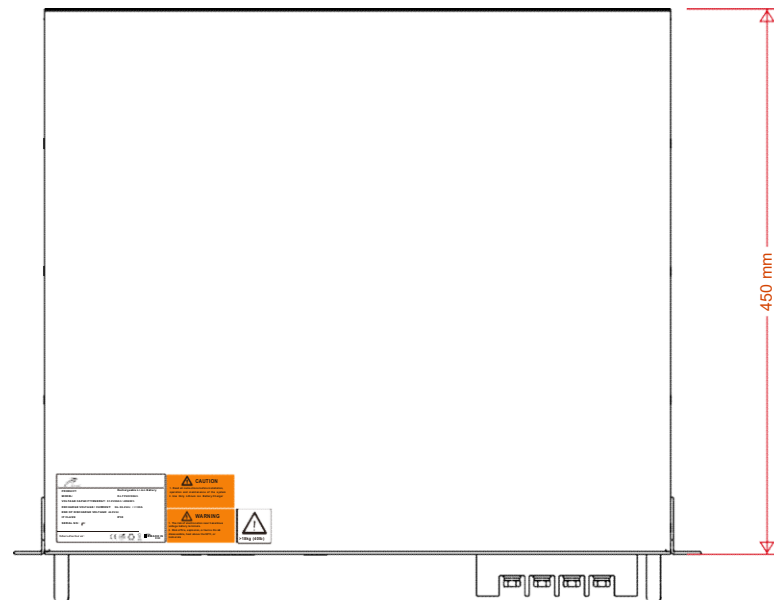
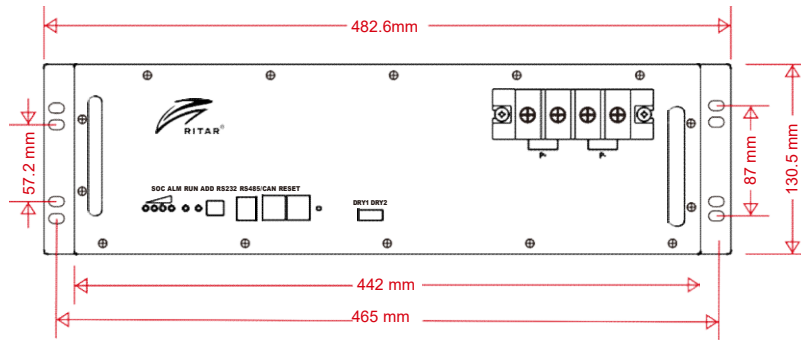
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512008001
Model	R-LFP48V80Ah
Cell Type	LFP Prismatic cell 40Ah
Internal Connection	2P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	80
Total Energy [Wh]	4096
Dimension (W*D*H, mm)	442*450*175
Weight [Kg]	39.4
Max. Charging Current [A]	80
Max. Discharging Current [A]	80
Pulse Discharge Current	120A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V80Ah Dimension

Part Number: 8010512008001



51.2V100Ah

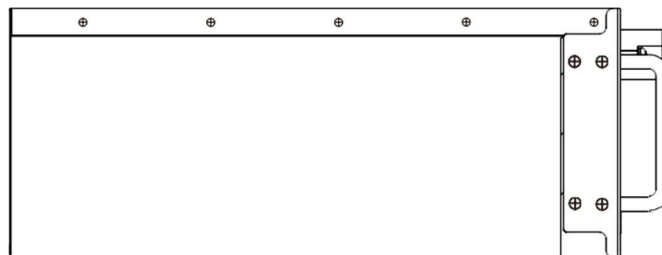
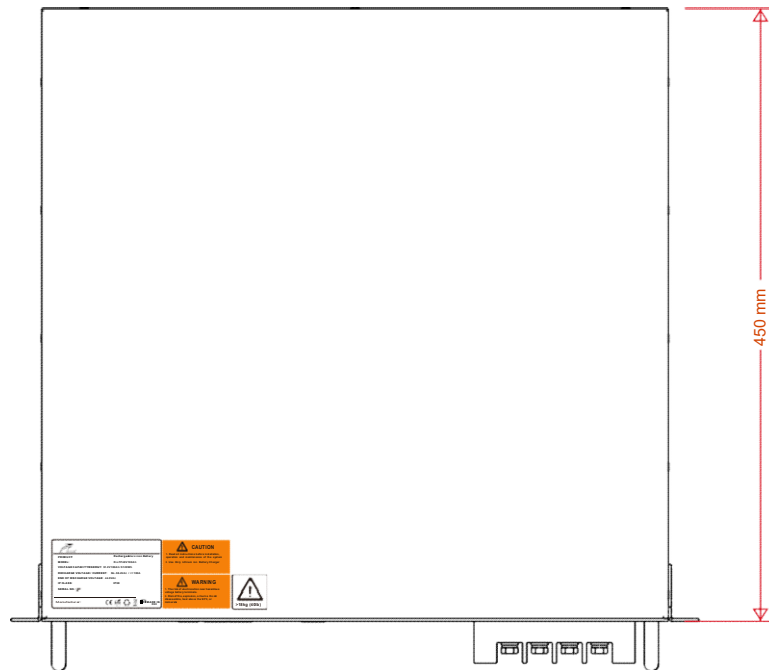
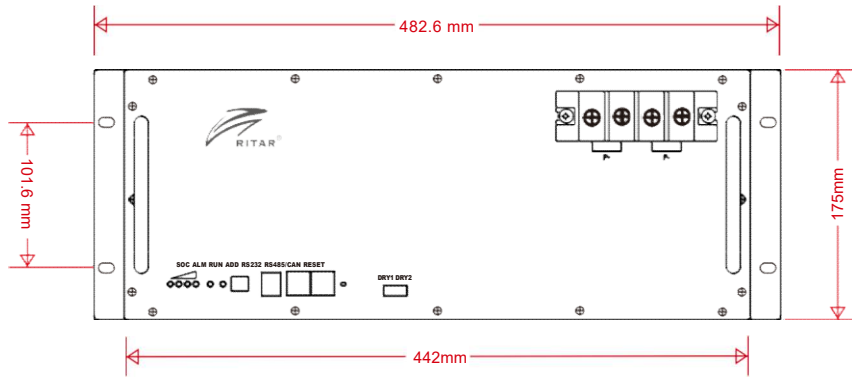
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512010001
Model	R-LFP48V100Ah
Cell Type	LFP Prismatic cell 50Ah
Internal Connection	2P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	100
Total Energy [Wh]	5120
Dimension (W*D*H, mm)	442*450*175
Weight [Kg]	52.4
Max. Charging Current [A]	100
Max. Discharging Current [A]	100
Pulse Discharge Current	120A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V100Ah Dimension

Part Number: 8010512010001



51.2V120Ah

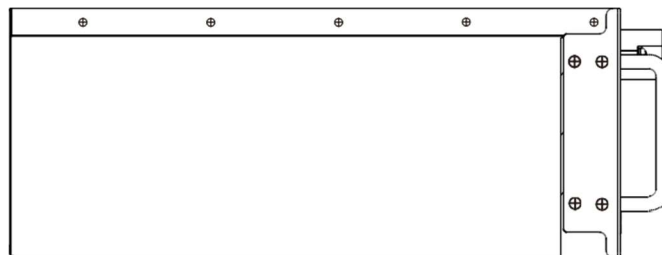
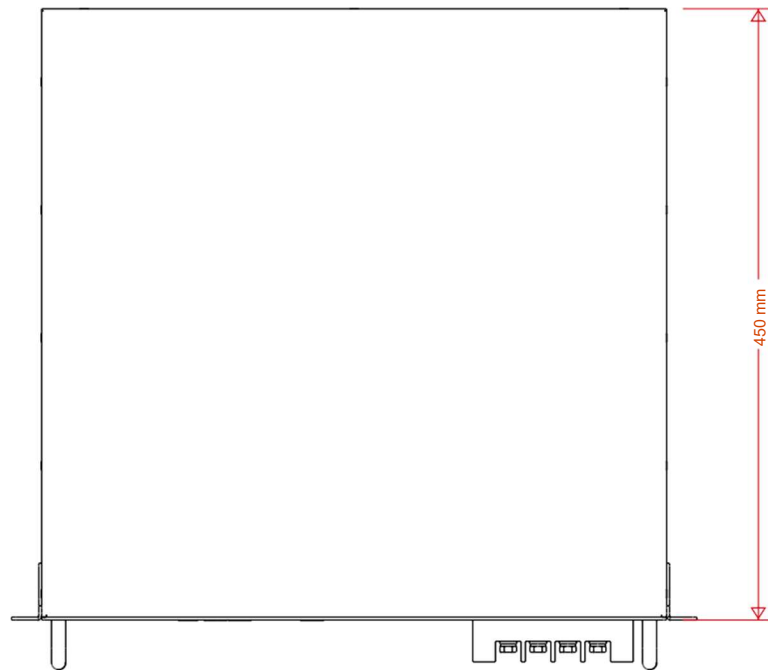
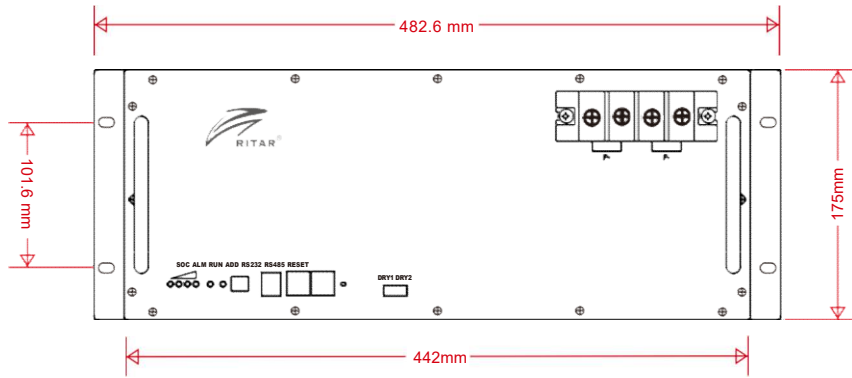
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512012001
Model	R-LFP48V120Ah
Cell Type	LFP Prismatic cell 120Ah
Internal Connection	1P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	120
Total Energy [Wh]	6144
Dimension (W*D*H, mm)	442*450*175
Weight [Kg]	53
Max. Charging Current [A]	100
Max. Discharging Current [A]	100
Pulse Discharge Current	120A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V120Ah Dimension

Part Number: 8010512012001



Li-ion Battery



51.2V150Ah

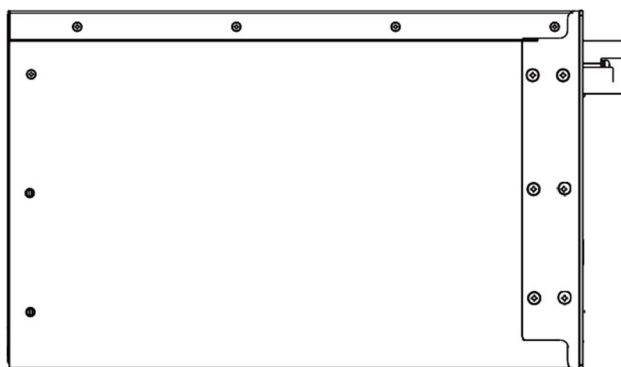
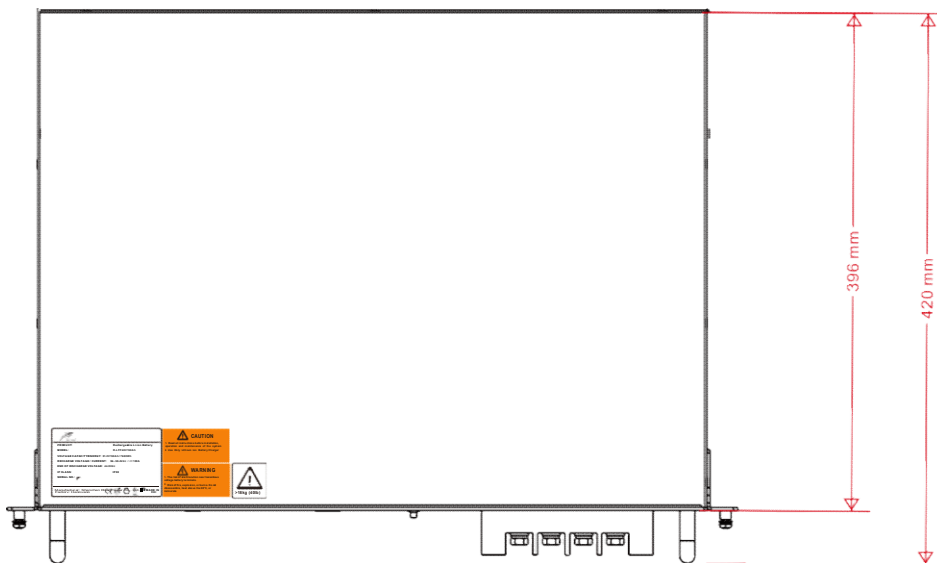
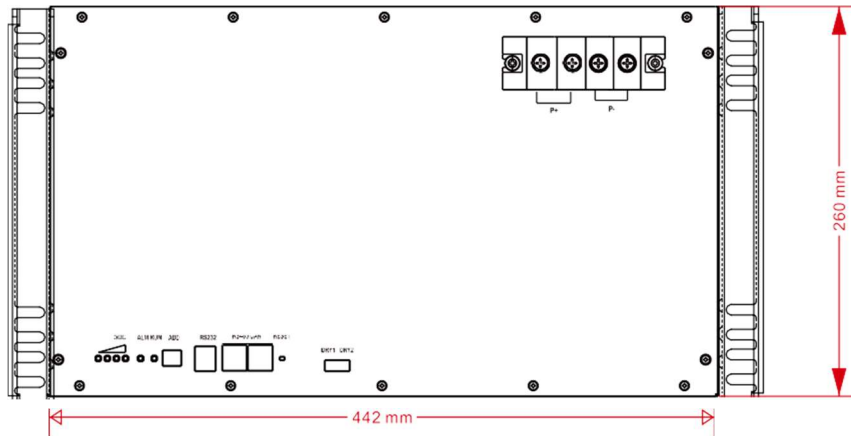
RACK MOUNTED LI-ION BATTERY SPECIFICATION



Part Number	8010512015001
Model	R-LFP48V150Ah
Cell Type	LFP Prismatic cell 50Ah
Internal Connection	3P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	150
Total Energy [Wh]	7680
Dimension (W*D*H, mm)	442*396*260
Weight [Kg]	74.6
Max. Charging Current [A]	100
Max. Discharging Current [A]	100
Pulse Discharge Current	120A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application)
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years
Communication interface	RS232, RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V150Ah Dimension

Part Number: 8010512015001





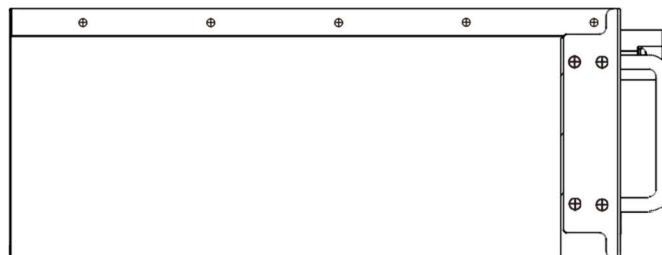
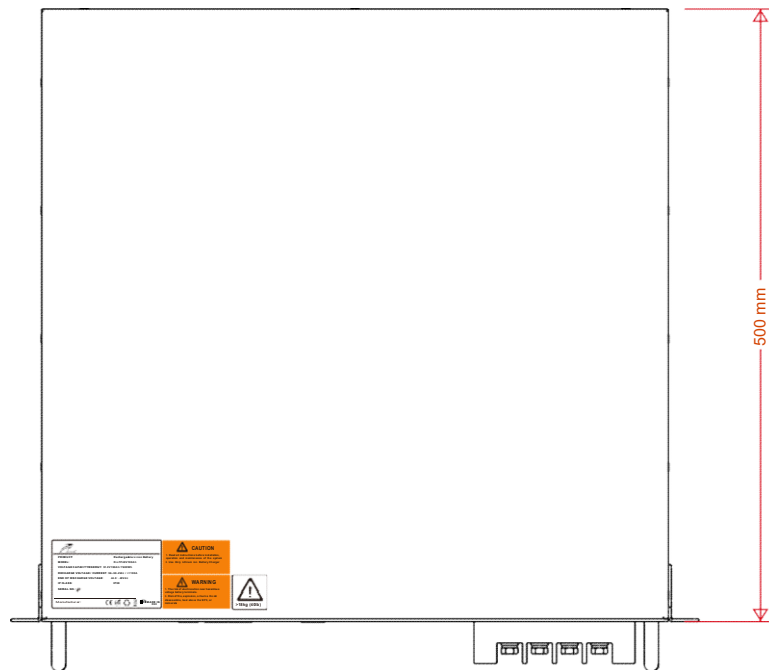
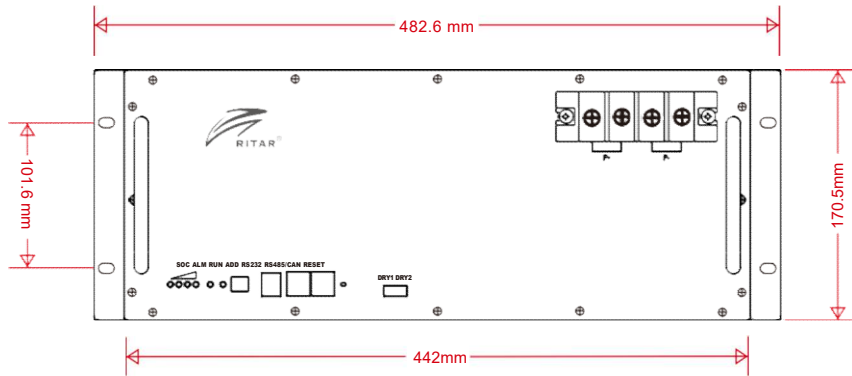
51.2V150Ah

RACK MOUNTED LI-ION BATTERY SPECIFICATION

Part Number	8010512015002
	R-LFP48V150Ah
Cell Type	LFP Prismatic cell 50Ah
Internal Connection	3P16S
Nominal Voltage [V]	51.2
Nominal Capacity [Ah]	150
Total Energy [Wh]	7680
Dimension (W*D*H, mm)	442*500*175
Weight [Kg]	74.6
Max. Charging Current [A]	100
Max. Discharging Current [A]	100
Pulse Discharge Current	120A @1S
Charging Voltage [V]	56~57.6
End of Discharge Voltage [V]	44.8 (Backup Application) /48 (Cycle Application) 0~95%
Operation Humidity	RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C; Discharge: -20 ~ +55°C
Cycle Life	>3500
Designed Calendar Life	10 Years RS232,
Communication interface	RS485, CAN
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit
Parallel Support	Yes, Max. 15 Sets
Series Support	Not support
Optional Parts	MCB; LCD display; Gyroscope Anti-theft; Gyroscope Anti-theft; SNMP module;

R-LFP48V150Ah Dimension

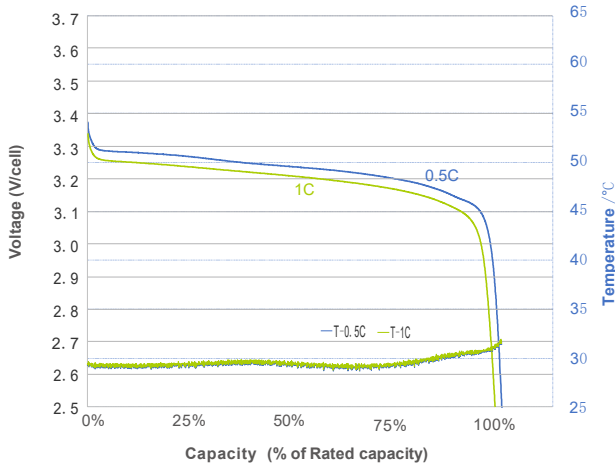
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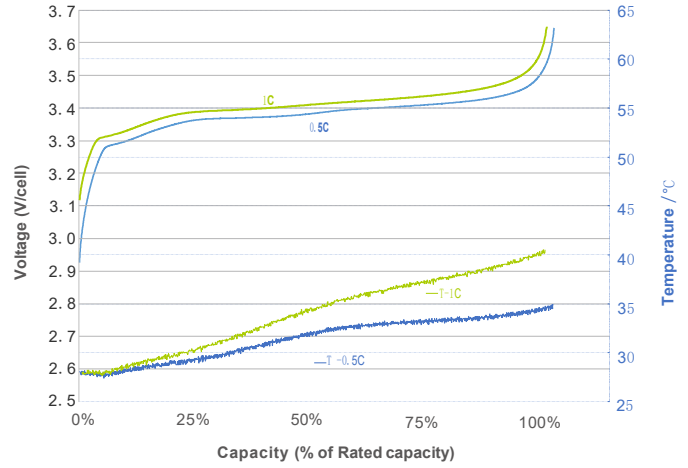
51.2V

RACK MOUNTED LI-ION BATTERY

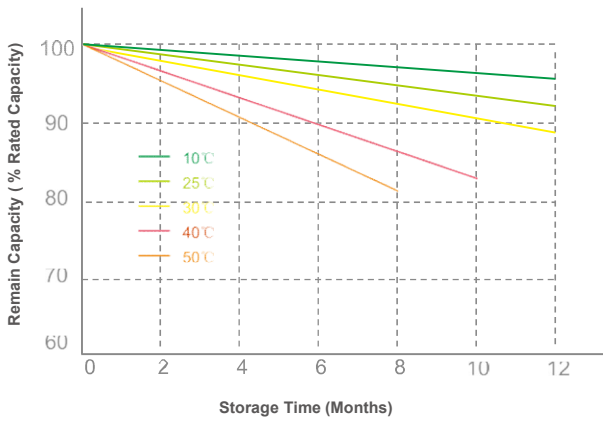
Different Discharge Rate and Temperature Characteristic



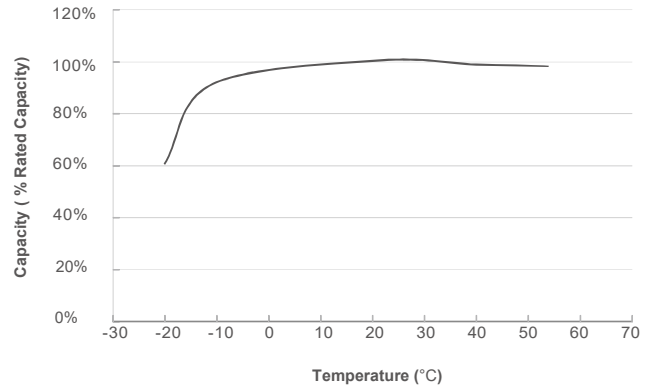
Different Charge Rate and Temperature Characteristic



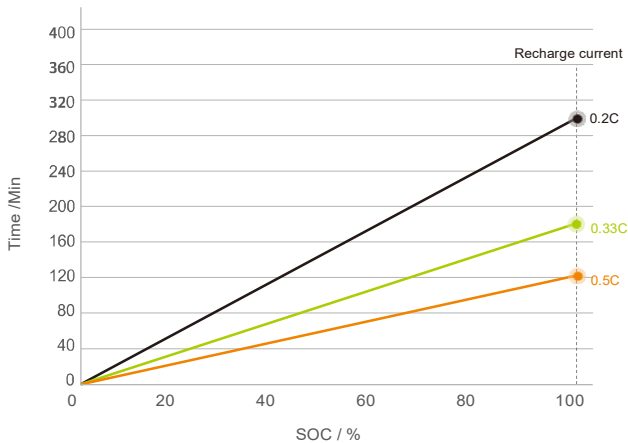
Different Temperature Self Discharge Curve



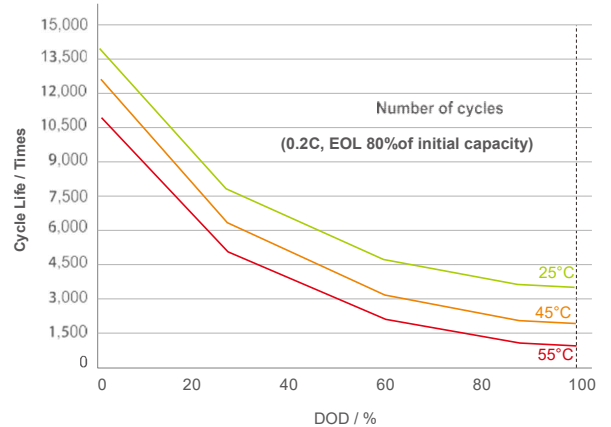
Capacity with Different Temperature



Typical Recharge Time



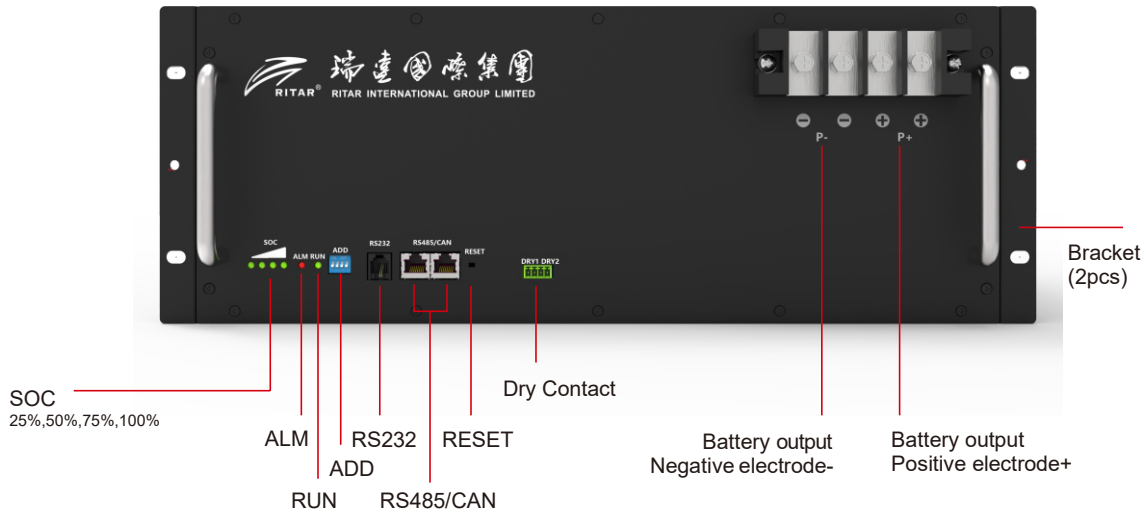
Typical Cycle Life



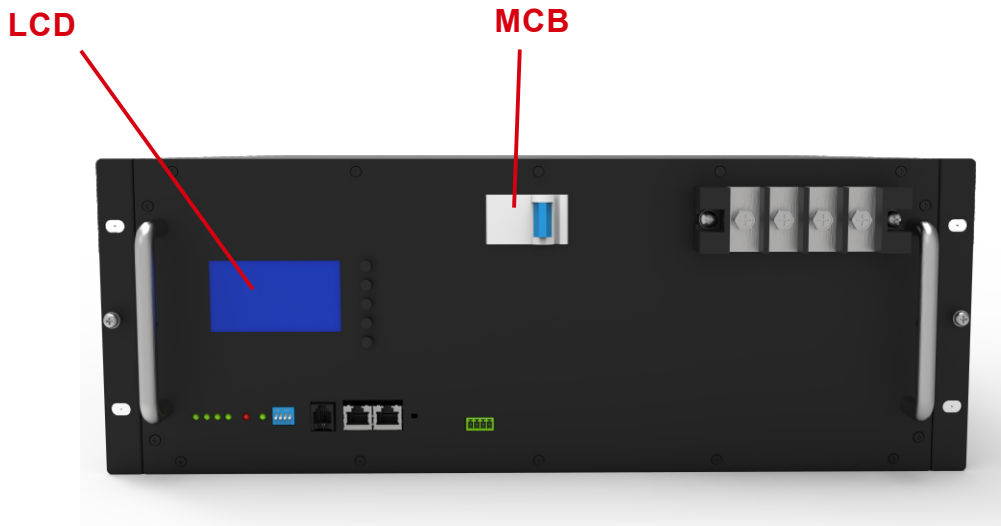
Li-ion Battery

RACK MOUNTED LI-ION BATTERY







Standard Product - Front Panel



Optional Parts



LED Indicator Description

Status	Nominal Warning Protection	RUN	ALM	SOC				Description
								
Shut down	Dormancy	OFF	OFF	OFF	OFF	OFF	OFF	
Standby	Nominal	Flash 1	OFF	Follow module capacity				Standby
	Warning	Flash 1	Flash 3					Module at low voltage
Charge	Nominal	ON	OFF	Follow module capacity				
	Warning	ON	Flash 3					
	Over-charge Protection	ON	OFF	ON	ON	ON	ON	LED turn to standby if no power supply
	Temperature, over-current, Failure protection	OFF	OFF	OFF	OFF	OFF	OFF	Stop charging
Discharge	Nominal	ON	OFF	Follow module capacity				
	Warning	ON	Flash 3					
	Under voltage Protection	OFF	OFF	OFF	OFF	OFF	OFF	Stop discharging
	Temperature, over-current, short circuit, failure protection	OFF	ON	OFF	OFF	OFF	OFF	Stop discharging
Failure		OFF	ON	OFF	OFF	OFF	OFF	Stop charging and discharging

Note:
 Flash 1: light 0.25s/off 3.75s
 Flash 2: light 0.5s/ off 0.5s
 Flash 3: light 0.5s / off 1.5s

RJ11 (RS232) PIN MAP



RJ11 PIN	Description
1, 2, 6	NC
3	TX
4	RX
5	GND

RJ45 (RS485) PIN MAP



RJ45 PIN	Description
1, 8	RS485-B
2, 7	RS485-A
3, 6	GND
4, 5	NC

RESET Button

When the battery in dormancy mode, press reset button 1~6s and release, the system will be activated.

When the battery in working mode, press reset button 3~6s and release, the system will turn to dormancy mode.

When the battery in working mode, press reset button 6~10s and release, the BMS will be reset and all LED indicators will be light 1.5s at the same time.