



SAFETY

- + Long life type prismatic LiFePO4 cells, suitable for energy storage application.
- + Low voltage system, safety for application.
- + Battery certification: UN38.3, MSDS, CE
- + Cycle life >4000 cycles.

DESIGN

- + Standard 19" rack design, flexible and easily installation.
- + -20~+55°C widely temperature range.
- + Parallel support for more energy or more capacity inverter.
- + SOC, RUN, ALARM display and BMS PC software.
- + OVP, LVP, OCP, OTP, LTP, Short circuit protection.
- + RS485, CAN communication port.
- + Independent protection for charge and discharge.
- + High reliability: AFE microchip is Panasonic & MCU is ST
- + Optional part: Bluetooth module, Heater.

Compatible with inverter brands

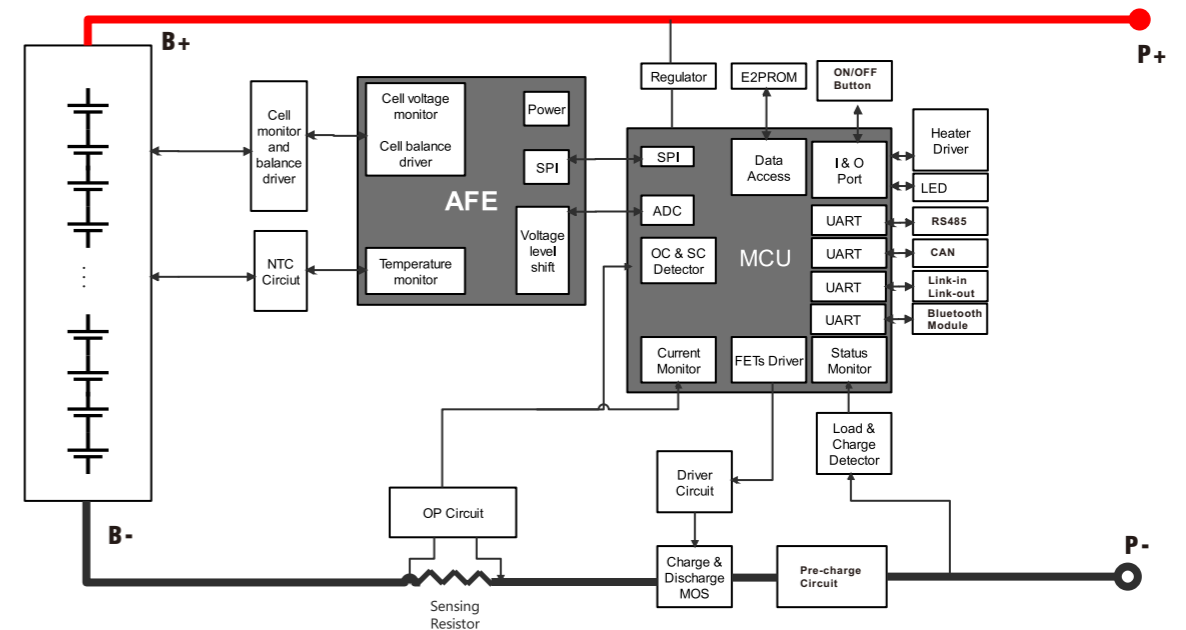
Communication compatible with major inverter



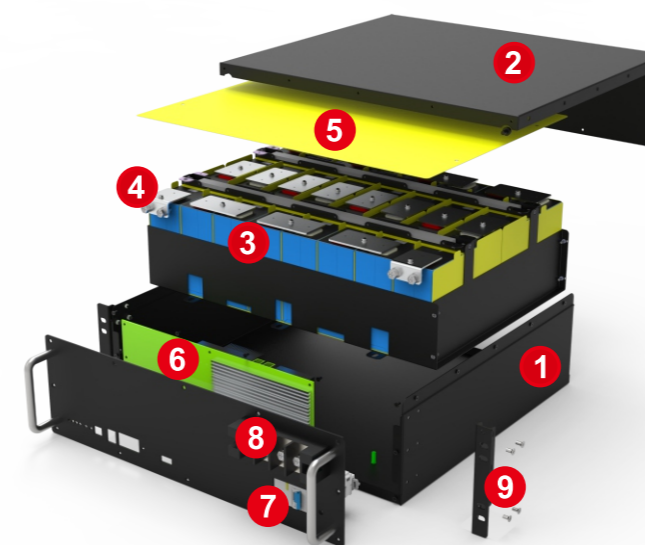
48V	51.2V
50Ah	50Ah
100Ah	100Ah
135Ah	150Ah 6U
150Ah 4U	200Ah -100A
200Ah -100A	200Ah-150A
200Ah-150A	280Ah-140A
200Ah-200A	
280Ah-140A	

RESS BATTERY-48V/51.2V

SYSTEM TOPOLOGY



INTERNAL STRUCTURE DIAGRAM



- 1 Battery Case: SPCC with black painting
- 2 Battery Cover: SPCC with black painting
- 3 LFP Cells (15S for 48V, 16S for 51.2V)
- 4 Aluminum Bar -A1060
- 5 Epoxy Board
- 6 BMS- Ritar (B0 version)
- 7 MCB
- 8 Power Terminal
- 9 Brackets

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RESS BATTERY-48V



PARAMETERS-48V

Model	R-LFP48V50Ah	R-LFP48V100Ah	R-LFP48V135Ah	R-LFP48V150Ah
Nominal Voltage [V]	48	48	48	48
Nominal Capacity [Ah]	50	100	135	150
Total Energy [Wh]	2400	4800	6480	7200
Dimension (W*D*H, mm)	442*400*130.5	442*400*130.5	442*450*175	442*520*175
Weight [Kg]	26.5	37.5	58	65
Max. Charging Current [A]	50	100	100	100
Max. Discharging Current [A]	50	100	100	100
Pulse Discharge Current	55A @ 10min 60A @ 5s	110A @ 10min 120A @ 5s	110A @ 10min 120A @ 5s	110A @ 10min 120A @ 5s
Charging Voltage [V]	51.8~54.7			
End of Discharge Voltage [V]	42 (Backup Application) / 45 (Cycle Application)			
Operation Humidity	0~95% RH (No condensing)			
Operating Temperature Range ⁽¹⁾	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C			
Cycle Life ⁽²⁾	>4000			
Designed Calendar Life	10 Years			
Communication interface	RS485*2, CAN*1, Dry contact *2			
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit			
Parallel Support ⁽³⁾	Yes, Max. 15 Sets			
Series Support	Not support			
IP Class	IP20			
Certification ⁽⁴⁾	UN38.3, MSDS, CE			

Note:

(1) Normally the Li-ion battery operation temperature range is : discharge -20~+55°C, charge 0~+55°C, If the optional heater is stalled, it will automatic start to work once the cell temperature is below 5°C and the heater can help to increase cell temperature 4~8°C/hour. With Optional Heater: Charge / Discharge: -30 ~ +55°C

(2) 25°C ,0.5C/0.5C, 100%DOD and 80% EOL

(3) For parallel power cable connection, refer to user manual.

(4) some models cell have UL , IEC certification,

The datasheet is subject to change without prior notification

RESS BATTERY-48V



PARAMETERS-48V

Model	R-LFP48V200Ah -100A	R-LFP48V200Ah -150A	R-LFP48V200Ah -200A	R-LFP48V280Ah -140A
Nominal Voltage [V]	48	48	48	48
Nominal Capacity [Ah]	200	200	200	280
Total Energy [Wh]	9600	9600	9600	13440
Dimension (W*D*H, mm)	442*550*250	442*550*250	442*550*250	442*650*250
Weight [Kg]	78.4	78.4	78.4	105
Max. Charging Current [A]	100	150	150	100
Max. Discharging Current [A]	100	150	200	140
Pulse Discharge Current	110A @ 10min 120A @ 5s	165A @ 10min 180A @ 5s	210A @ 10min 220A @ 5s	165A @ 10min 180A @ 5s
Charging Voltage [V]	51.8~54.7			
End of Discharge Voltage [V]	42 (Backup Application) / 45 (Cycle Application)			
Operation Humidity	0~95% RH (No condensing)			
Operating Temperature Range ⁽¹⁾	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C			
Cycle Life ⁽²⁾	>4000			
Designed Calendar Life	10 Years			
Communication interface	RS485*2, CAN*1, Dry contact *2			
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit			
Parallel Support ⁽³⁾	Yes, Max. 15 Sets			
Series Support	Not support			
IP Class	IP20			
Certification ⁽⁴⁾	UN38.3, MSDS, CE			

Note:

(1) Normally the Li-ion battery operation temperature range is : discharge -20~+55°C, charge 0~+55°C, If the optional heater is stalled, it will automatic start to work once the cell temperature is below 5°C and the heater can help to increase cell temperature 4~8°C/hour. With Optional Heater: Charge / Discharge: -30 ~ +55°C

(2) 25°C ,0.5C/0.5C, 100%DOD and 80% EOL

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RESS BATTERY-51.2V



PARAMETERS-51.2V

Model	R-LFP51.2V50Ah	R-LFP51.2V100Ah	R-LFP51.2V150Ah (6U)
Nominal Voltage [V]	51.2	51.2	51.2
Nominal Capacity [Ah]	50	100	150
Total Energy [Wh]	2560	5120	7680
Dimension (W*D*H, mm)	442*400*130.5	442*400*130.5	442*396*260
Weight [Kg]	27.8	39.5	71.6
Max. Charging Current [A]	50	100	100
Max. Discharging Current [A]	50	100	100
Pulse Discharge Current	55A @ 10min 60A @ 5s	110A @ 10min 120A @ 5s	110A @ 10min 120A @ 5s
Charging Voltage [V]	55.2~58.4		
End of Discharge Voltage [V]	44.8 (Backup Application) / 48 (Cycle Application)		
Operation Humidity	0~95% RH (No condensing)		
Operating Temperature Range ⁽¹⁾	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C		
Cycle Life ⁽²⁾	>4000		
Designed Calendar Life	10 Years		
Communication interface	RS485*2, CAN*1, Dry contact *2		
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit		
Parallel Support ⁽³⁾	Yes, Max. 15 Sets		
Series Support	Not support		
IP Class	IP20		
Certification ⁽⁴⁾	UN38.3, MSDS, CE		

Note:

(1) Normally the Li-ion battery operation temperature range is : discharge -20~+55°C, charge 0~+55°C, If the optional heater is stalled, it will automatic start to work once the cell temperature is below 5°C and the heater can help to increase cell temperature 4~8°C/hour. With Optional Heater: Charge / Discharge: -30 ~ +55°C

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RESS BATTERY-51.2V



PARAMETERS-51.2V

Model	R-LFP51.2V200Ah -100A	R-LFP51.2V200Ah -150A	R-LFP51.2V200Ah -200A	R-LFP51.2V280Ah -140A
Nominal Voltage [V]	51.2	51.2	51.2	51.2
Nominal Capacity [Ah]	200	200	200	200
Total Energy [Wh]	10240	10240	10240	14336
Dimension (W*D*H, mm)	442*550*250	442*550*250	442*550*250	442*650*250
Weight [Kg]	82.4	82.4	82.4	105
Max. Charging Current [A]	100	100	100	100
Max. Discharging Current [A]	100	150	200	140
Pulse Discharge Current	110A @ 10min 120A @ 5s	165A @ 10min 180A @ 5s	210A @ 10min 220A @ 5s	165A @ 10min 180A @ 5s
Charging Voltage [V]	55.2~58.4			
End of Discharge Voltage [V]	44.8 (Backup Application) / 48 (Cycle Application)			
Operation Humidity	0~95% RH (No condensing)			
Operating Temperature Range ⁽¹⁾	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C			
Cycle Life ⁽²⁾	>4000			
Designed Calendar Life	10 Years			
Communication interface	RS485*2, CAN*1, Dry contact *2			
Protection	Over voltage , Low voltage, Over current, Over Temperature, Low Temperature, Short circuit			
Parallel Support ⁽³⁾	Yes, Max. 15 Sets			
Series Support	Not support			
IP Class	IP20			
Certification ⁽⁴⁾	UN38.3, MSDS, CE			

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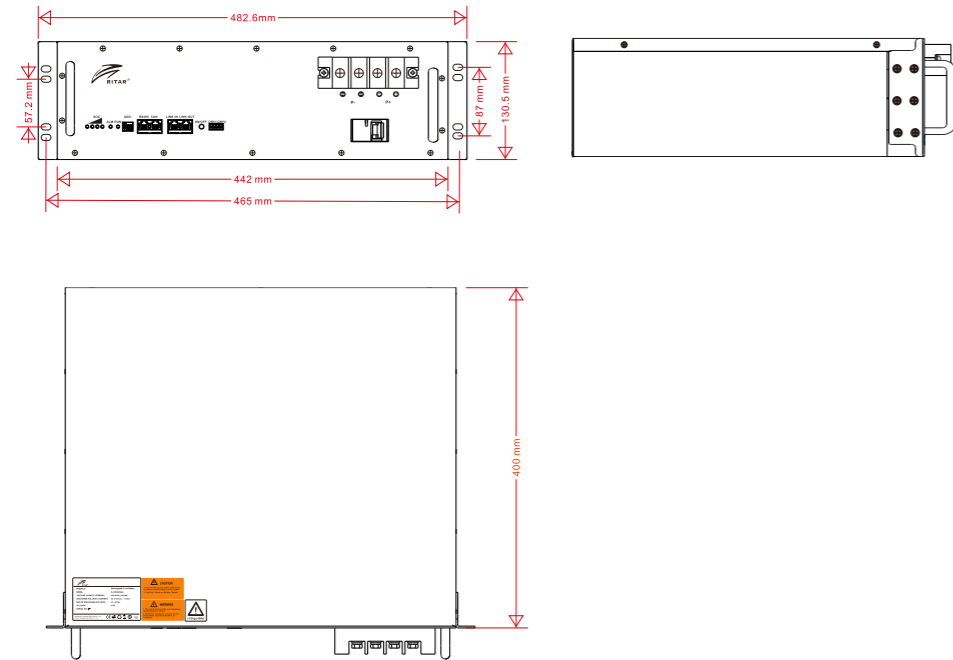
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RESS BATTERY-48V

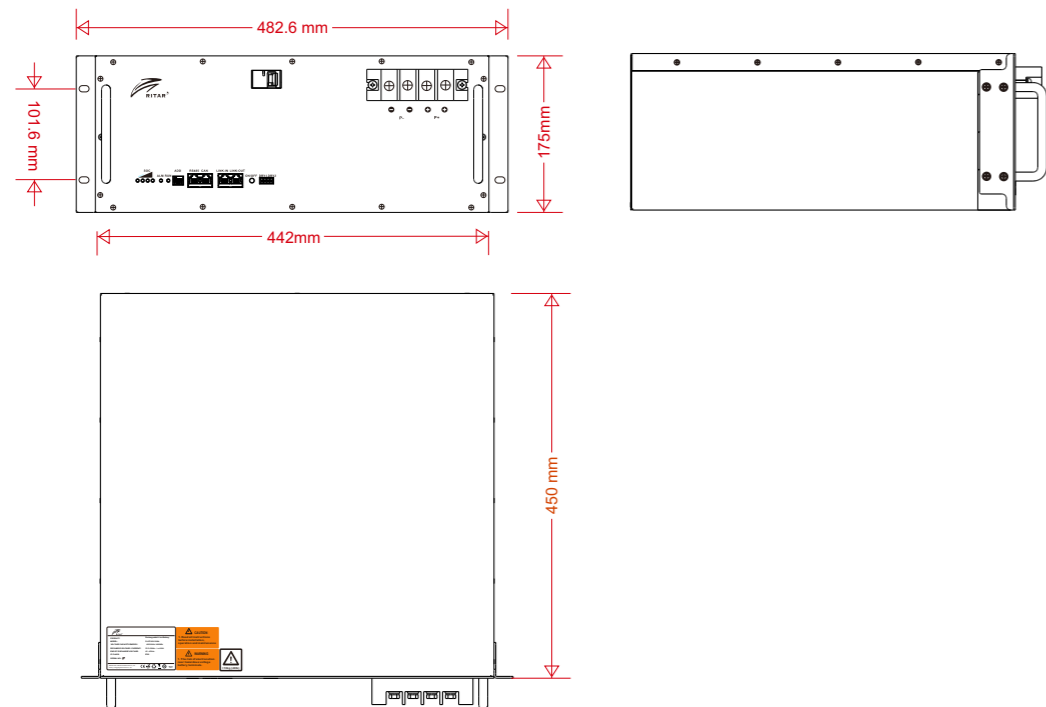


Dimension

R-LFP48V50Ah (Without MCB) / R-LFP51.2V50Ah (Without MCB)
 R-LFP48V100Ah / R-LFP51.2V100Ah



R-LFP48V135Ah / R-LFP51.2V135Ah

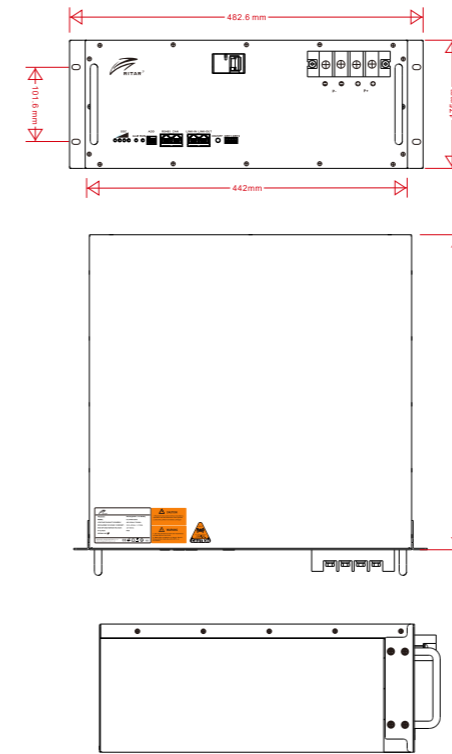


RESS BATTERY-48V

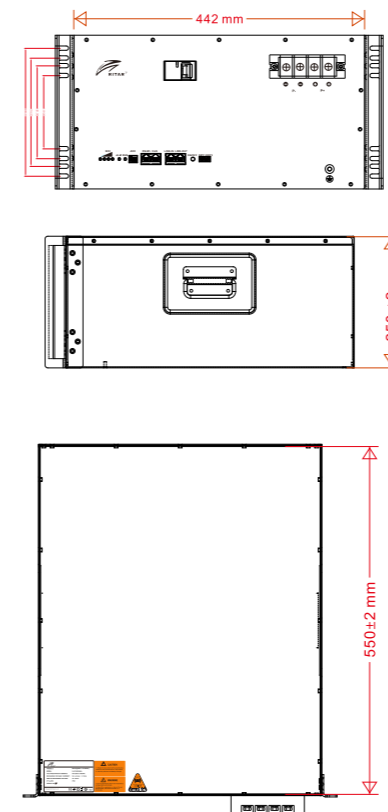


PARAMETERS-48V

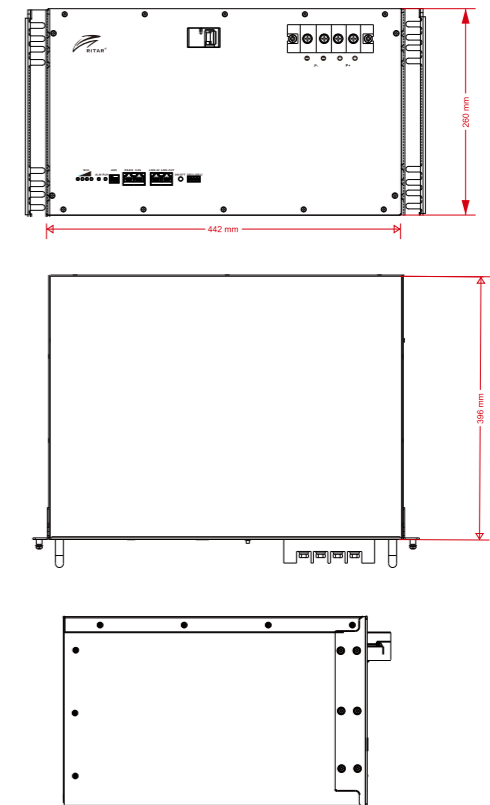
R-LFP48V150Ah 4U



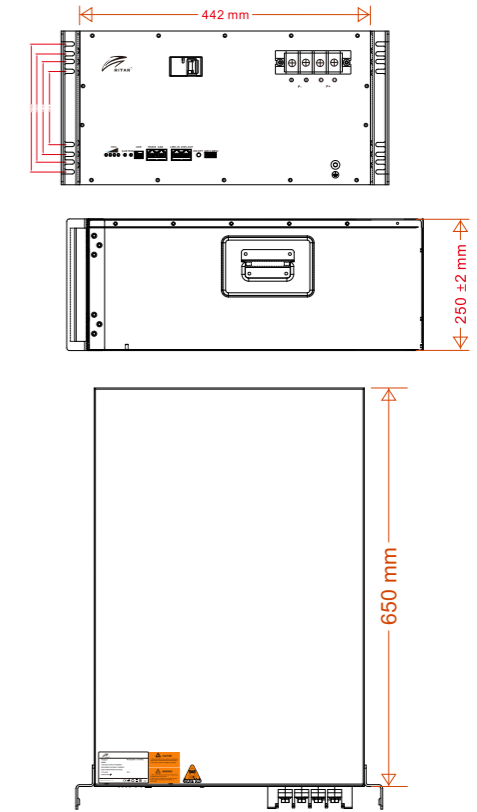
R-LFP48V200Ah / R-LFP51.2V200Ah



R-LFP51.2V150Ah 6U



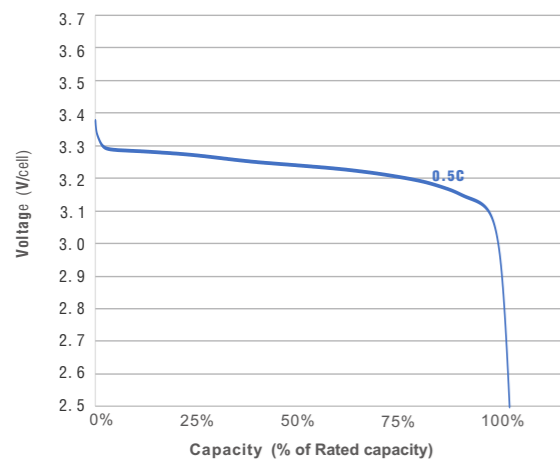
R-LFP51.2V280Ah



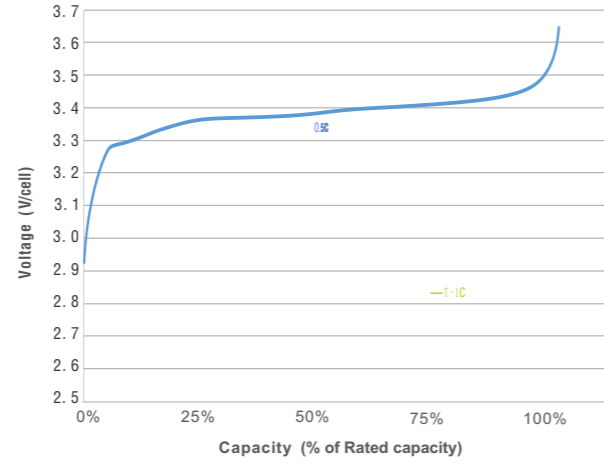


Performance Curve

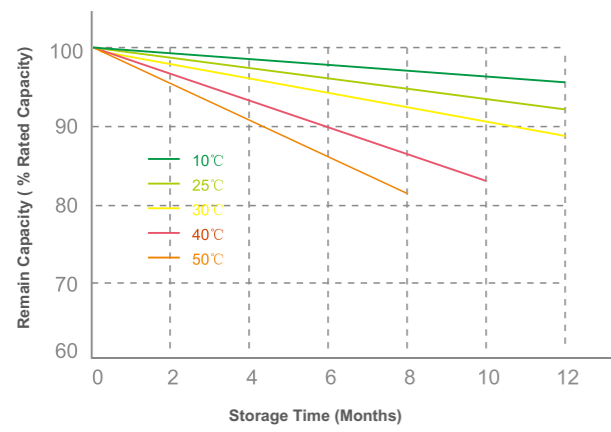
Dierent Discharge Rate and Temperature Characteristic



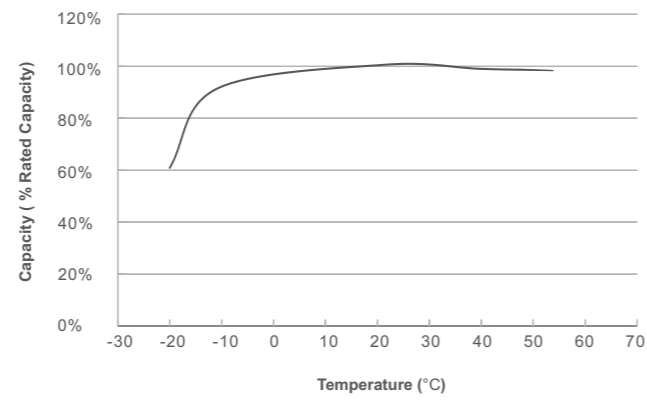
Dierent Charge Rate and Temperature Characteristic



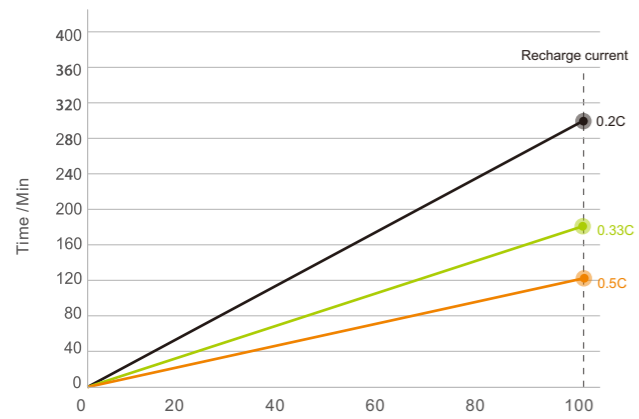
Different Temperature Self Discharge Curve



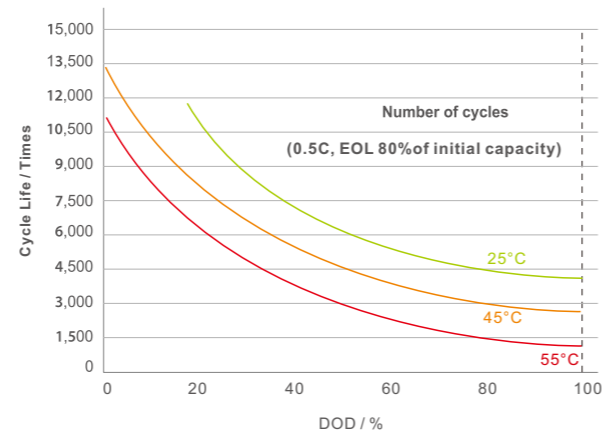
Capacity with Different Temperature



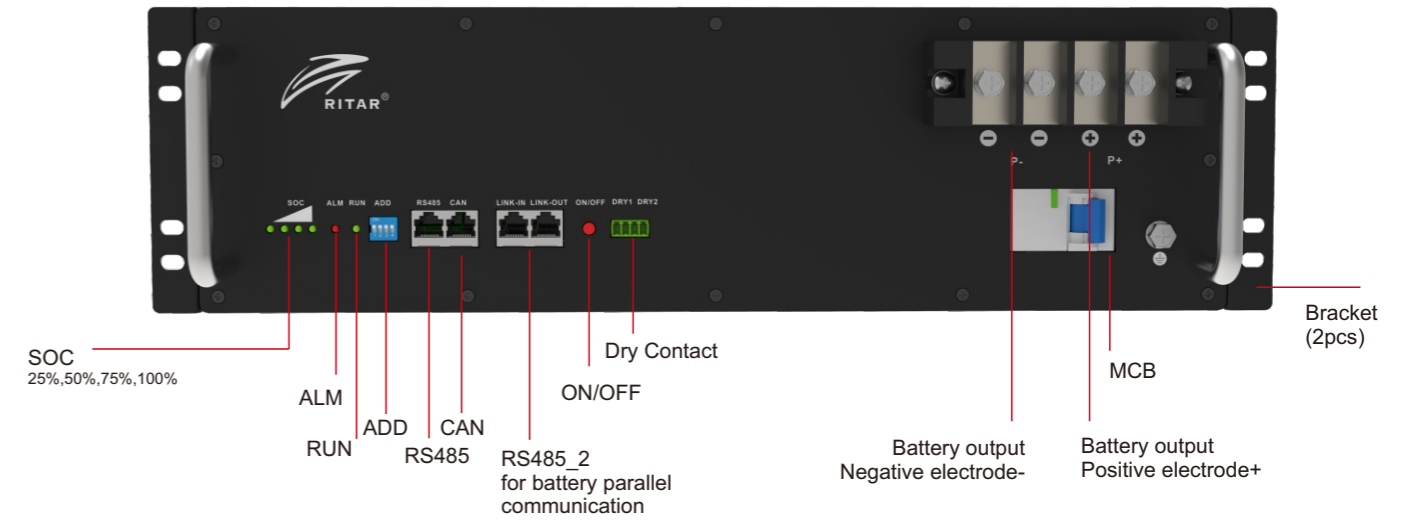
Typical Recharge Time



Typical Cycle Life



Front Panel



Optional Parts: Bluetooth module & APP

