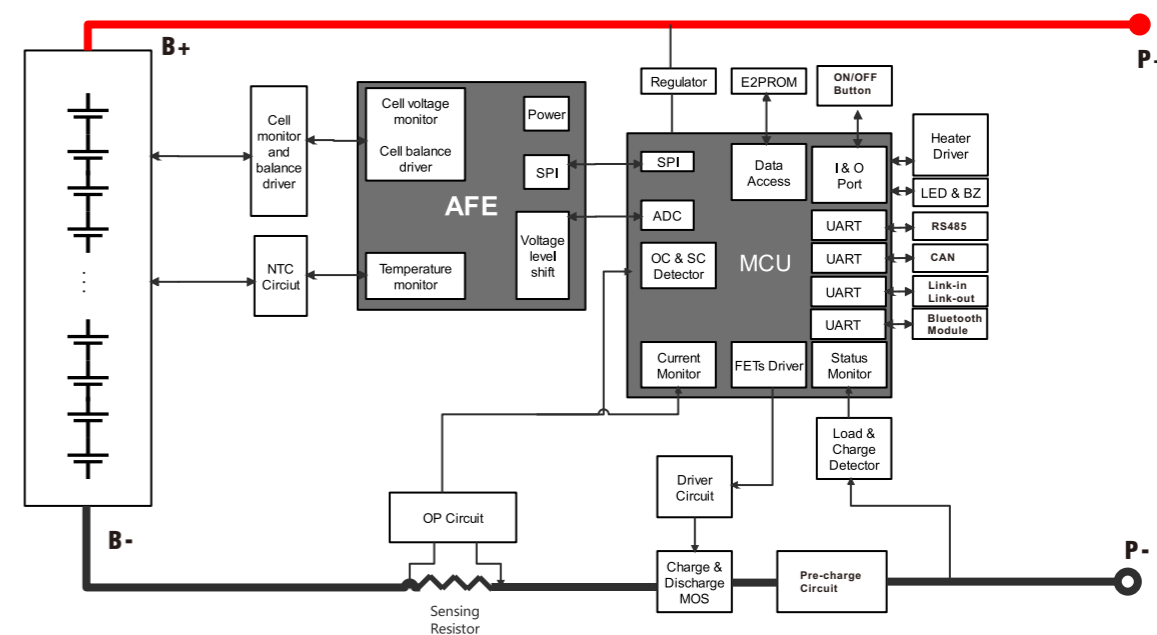
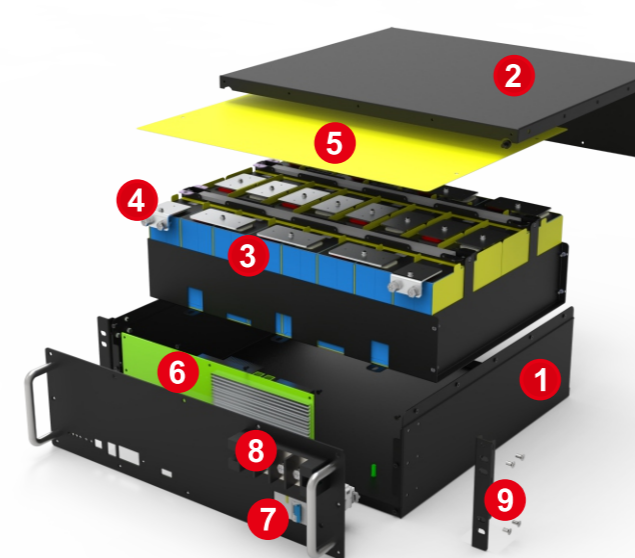


## RESS BATTERY-48V/51.2V

### 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



### 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



## RESS BATTERY-48V



### PARAMETERS-48V

Model	R-LFP48V50Ah	R-LFP48V70Ah	R-LFP48V100Ah
Nominal Voltage [V]	48	48	48
Nominal Capacity [Ah]	50	70	100
Total Energy [Wh]	2400	3360	4800
Dimension (W*D*H, mm)	442*400*130.5	442*400*130.5	442*400*130.5
Weight [Kg]	26.5	29.6	37.5
Max. Charging Current [A]	50	100	150
Max. Discharging Current [A]	50	100	150
Pulse Discharge Current	55A @ 10min 60A @ 10s	77A @ 10min 84A @ 10s	110A @ 10min 120A @ 10s
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 <sup>(1)</sup>	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C		
Cycle Life <sup>(2)</sup>	>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 <sup>(3)</sup>	Yes, Max. 15 Sets		
Series Support	Not support		
IP Class	IP20		
Certification <sup>(4)</sup>	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-LFP48V135Ah	R-LFP48V150Ah (6U)	R-LFP48V150Ah(4U)	R-LFP48V200Ah
Nominal Voltage [V]	48	48	48	48
Nominal Capacity [Ah]	135	150	150	200
Total Energy [Wh]	6480	7200	7200	9600
Dimension (W*D*H, mm)	442*450*175	442*396*260	442*520*175	442*500*250
Weight [Kg]	58	68	65	78.4
Max. Charging Current [A]	100	100	100	100
Max. Discharging Current [A]	100	100	100	100
Pulse Discharge Current	110A @ 10min 120A @ 10s	110A @ 10min 120A @ 10s	110A @ 10min 120A @ 10s	110A @ 10min 120A @ 10s
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 <sup>(1)</sup>	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C			
Cycle Life <sup>(2)</sup>	>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 <sup>(3)</sup>	Yes, Max. 15 Sets			
Series Support	Not support			
IP Class	IP20			
Certification <sup>(4)</sup>	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,

## RESS BATTERY-51.2V



### PARAMETERS-51.2V

Model	R-LFP51.2V50Ah	R-LFP51.2V70Ah	R-LFP51.2V100Ah
Nominal Voltage [V]	51.2	51.2	51.2
Nominal Capacity [Ah]	50	70	100
Total Energy [Wh]	2560	3584	5120
Dimension (W*D*H, mm)	442*400*130.5	442*400*130.5	442*400*130.5
Weight [Kg]	27.8	31.0	39.5
Max. Charging Current [A]	50	100	150
Max. Discharging Current [A]	50	100	150
Pulse Discharge Current	55A @ 10min 60A @ 10s	77A @ 10min 84A @ 10s	110A @ 10min 120A @ 10s
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 <sup>(1)</sup>	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C		
Cycle Life <sup>(2)</sup>	>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 <sup>(3)</sup>	Yes, Max. 15 Sets		
Series Support	Not support		
IP Class	IP20		
Certification <sup>(4)</sup>	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,

## RESS BATTERY-51.2V



### PARAMETERS-51.2V

Model	R-LFP51.2V135Ah	R-LFP51.2V150Ah (6U)	R-LFP51.2V150Ah(4U)	R-LFP51.2V200Ah
Nominal Voltage [V]	48	48	48	48
Nominal Capacity [Ah]	135	150	150	200
Total Energy [Wh]	6912	7680	7680	10240
Dimension (W*D*H, mm)	442*450*175	442*396*260	442*520*175	442*500*250
Weight [Kg]	60.7	71.6	68	82.4
Max. Charging Current [A]	100	100	100	100
Max. Discharging Current [A]	100	100	100	100
Pulse Discharge Current	110A @ 10min 120A @ 10s	110A @ 10min 120A @ 10s	110A @ 10min 120A @ 10s	110A @ 10min 120A @ 10s
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 <sup>(1)</sup>	Charge: 0 ~ +55°C; Discharge: -20 ~ +55°C			
Cycle Life <sup>(2)</sup>	>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 <sup>(3)</sup>	Yes, Max. 15 Sets			
Series Support	Not support			
IP Class	IP20			
Certification <sup>(4)</sup>	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.

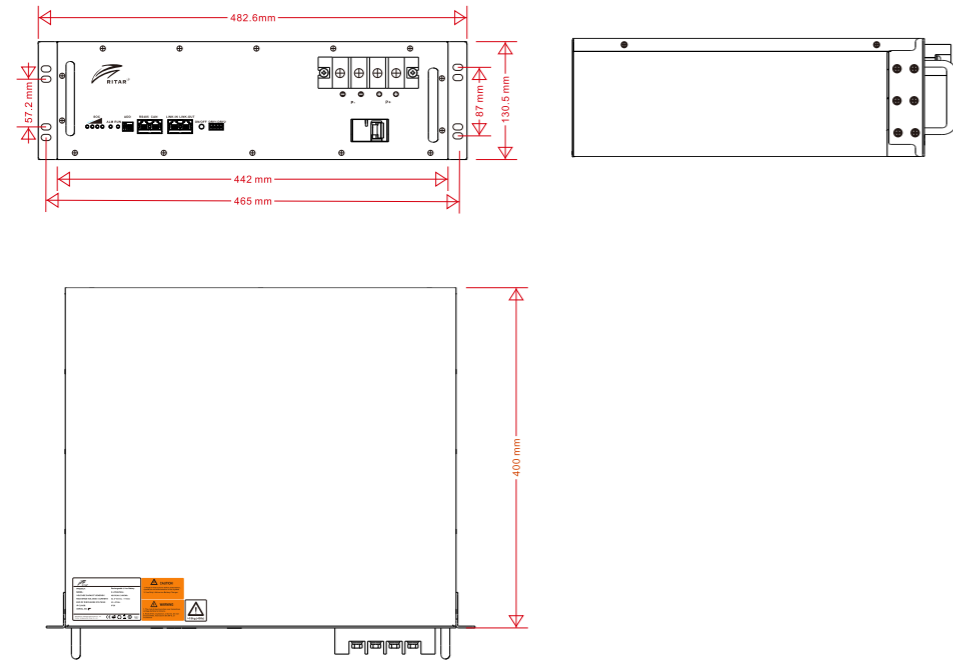
(4) some models cell have UL , IEC certification,

# RESS BATTERY-48V

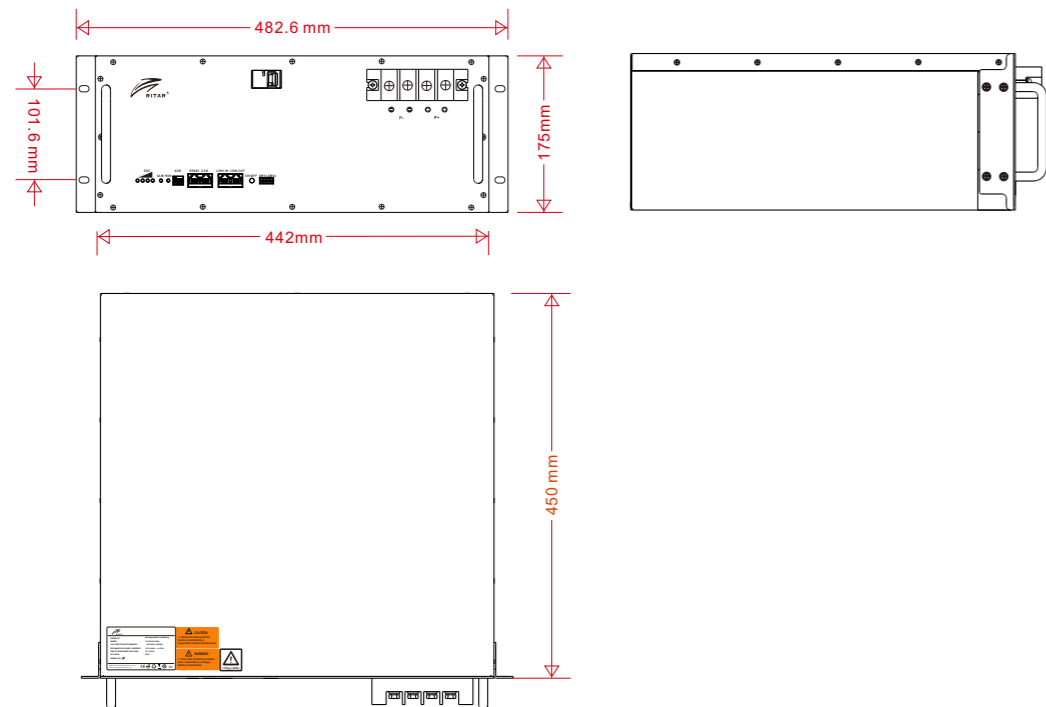


## Dimension

R-LFP48V50Ah (Without MCB) / R-LFP51.2V50Ah (Without MCB)  
 R-LFP48V70Ah / R-LFP51.2V70Ah  
 R-LFP48V100Ah / R-LFP51.2V100Ah



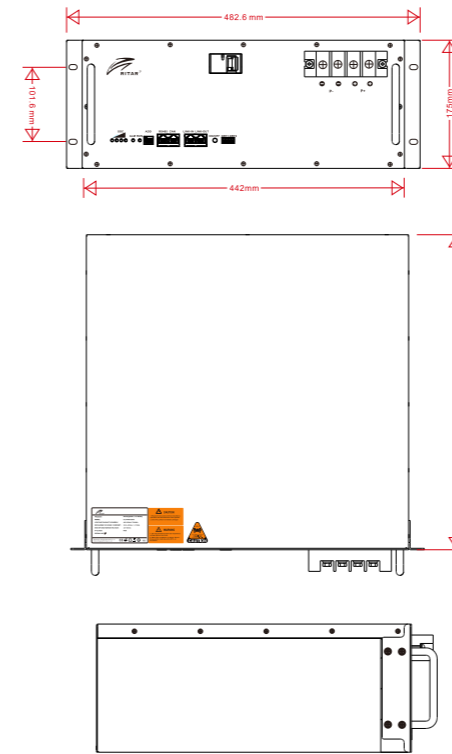
R-LFP48V135Ah / R-LFP51.2V135Ah



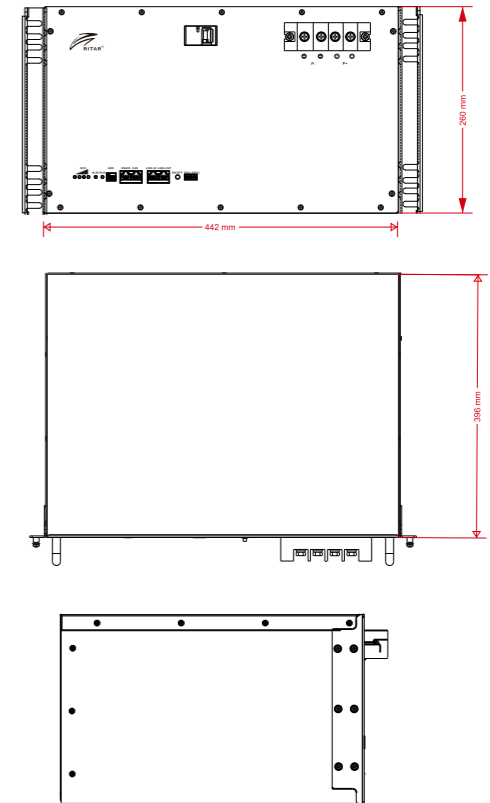
# RESS BATTERY-48V



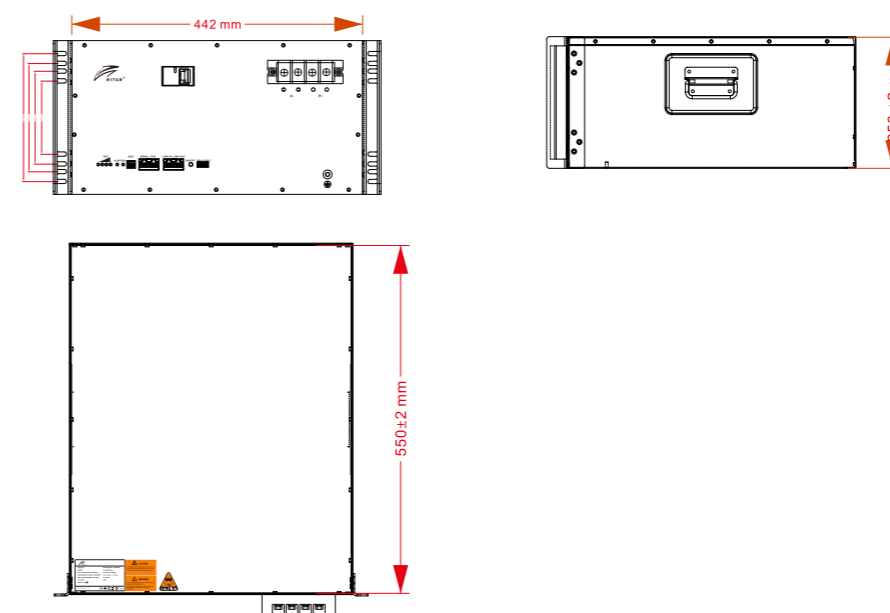
R-LFP48V150Ah 4U  
 R-LFP51.2V150Ah 4U



R-LFP48V150Ah 6U  
 R-LFP51.2V150Ah 6U



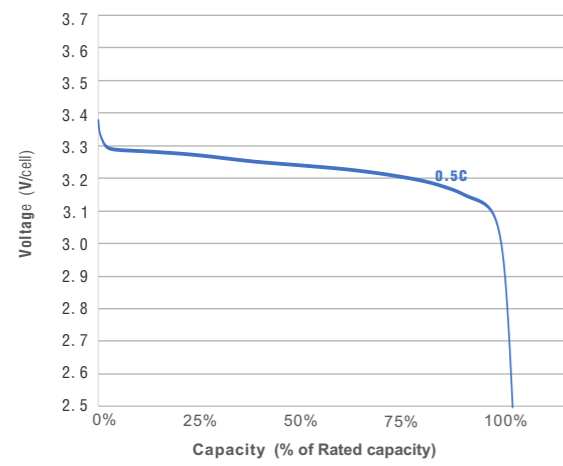
R-LFP48V200Ah / R-LFP51.2V200Ah



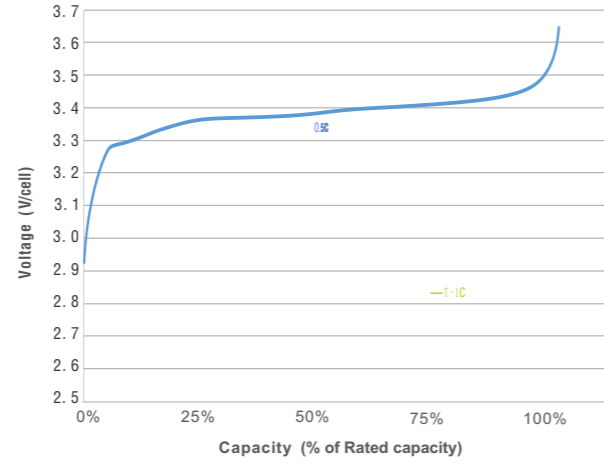


## Performance Curve

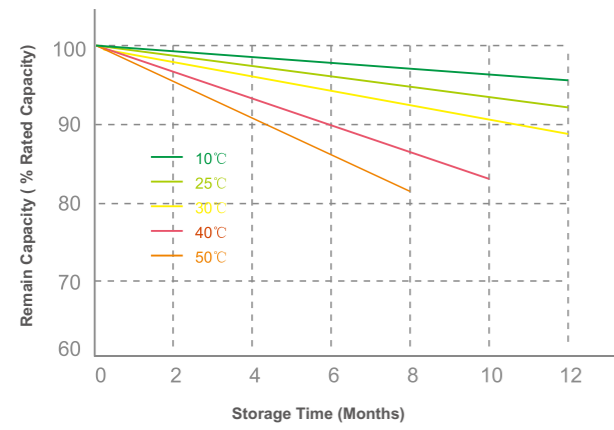
Dierent Discharge Rate and Temperature Characteristic



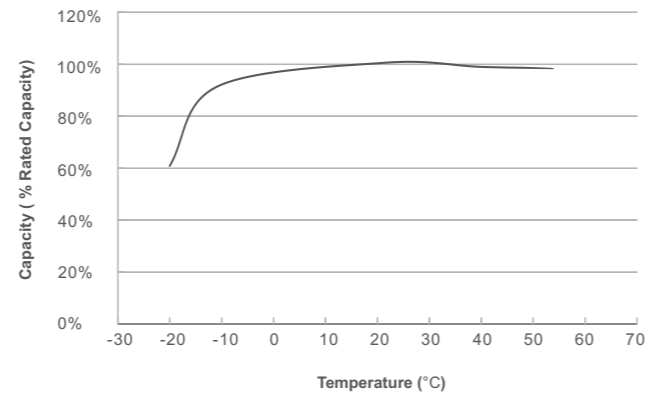
Dierent Charge Rate and Temperature Characteristic



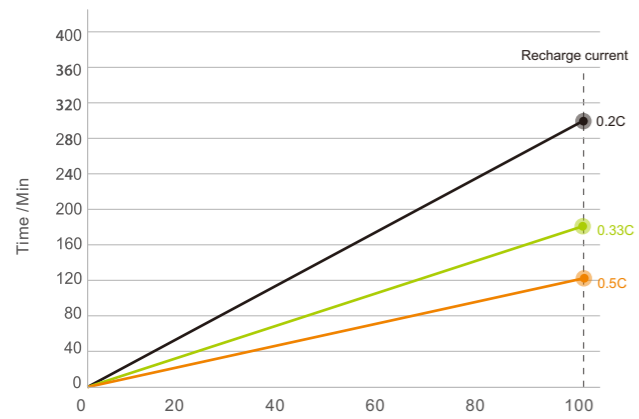
Different Temperature Self Discharge Curve



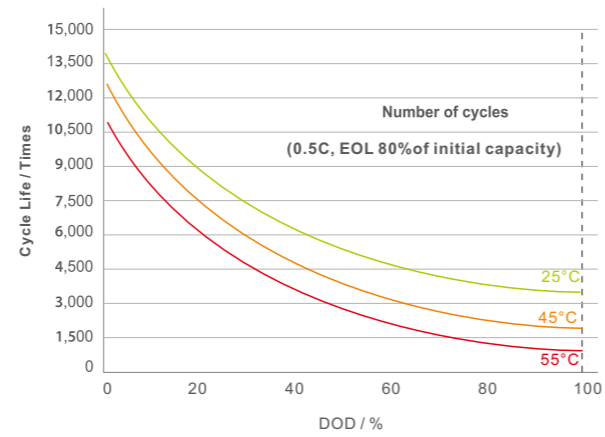
Capacity with Different Temperature



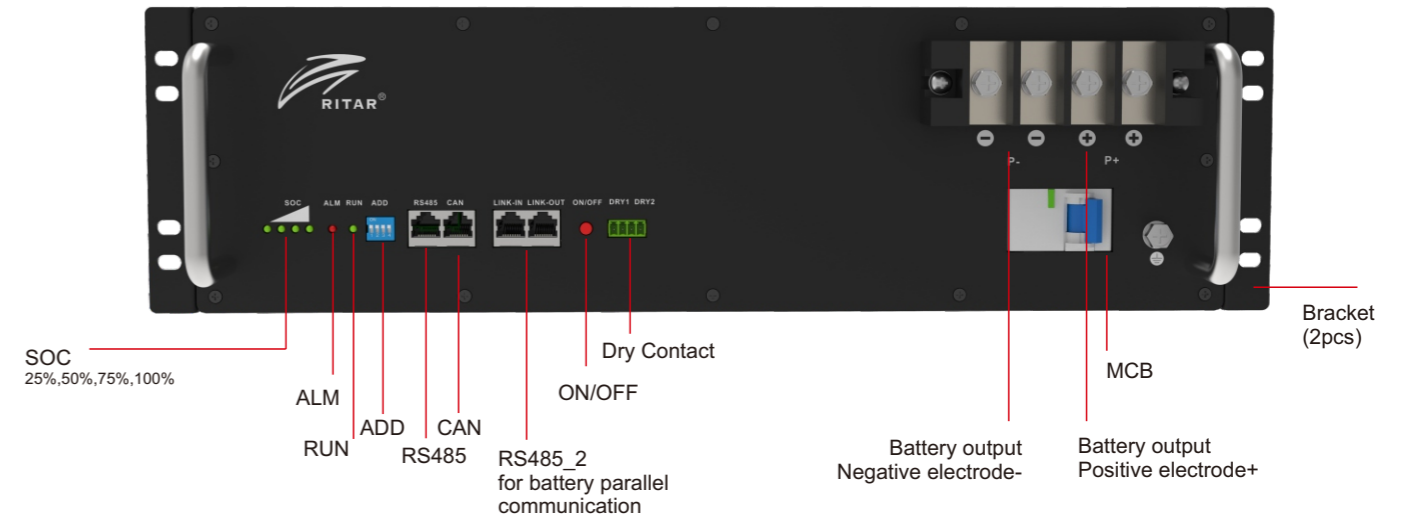
Typical Recharge Time



Typical Cycle Life



## Front Panel



## Optional Parts: Bluetooth module & APP

