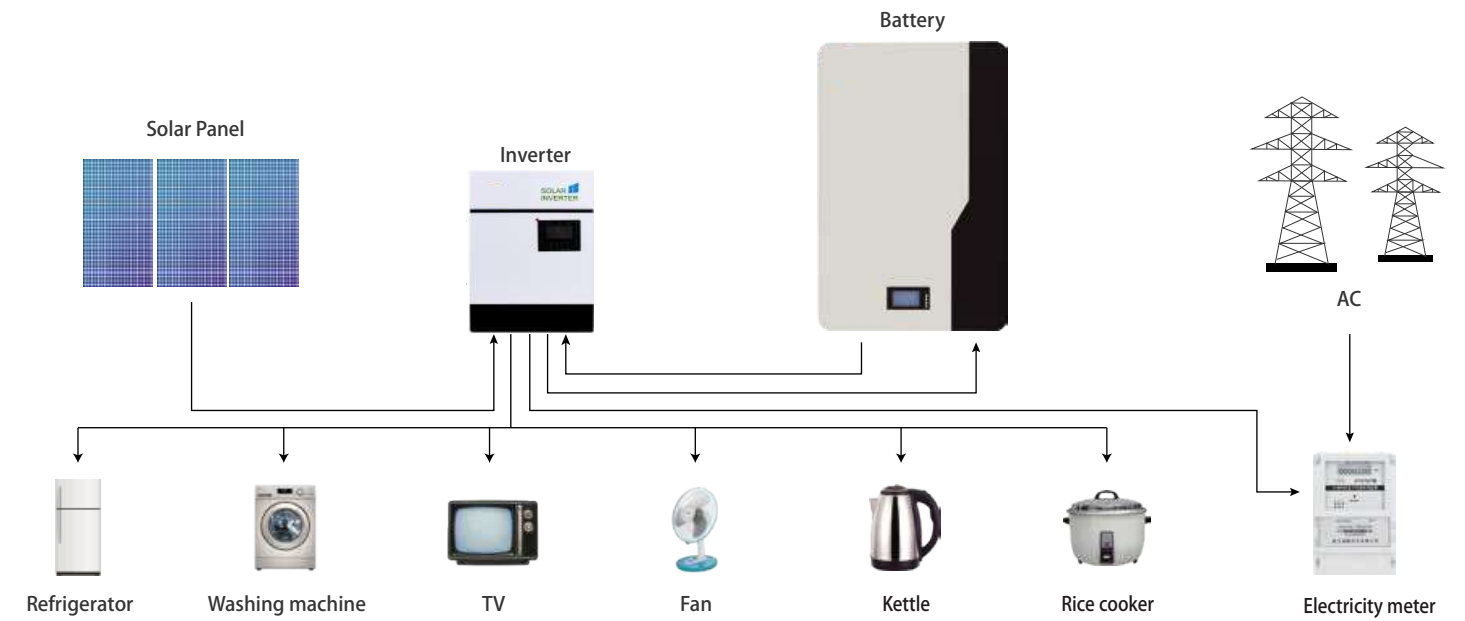


# Lithium Battery

## IBattery-PC 100-200AH LiFePO4 Battery

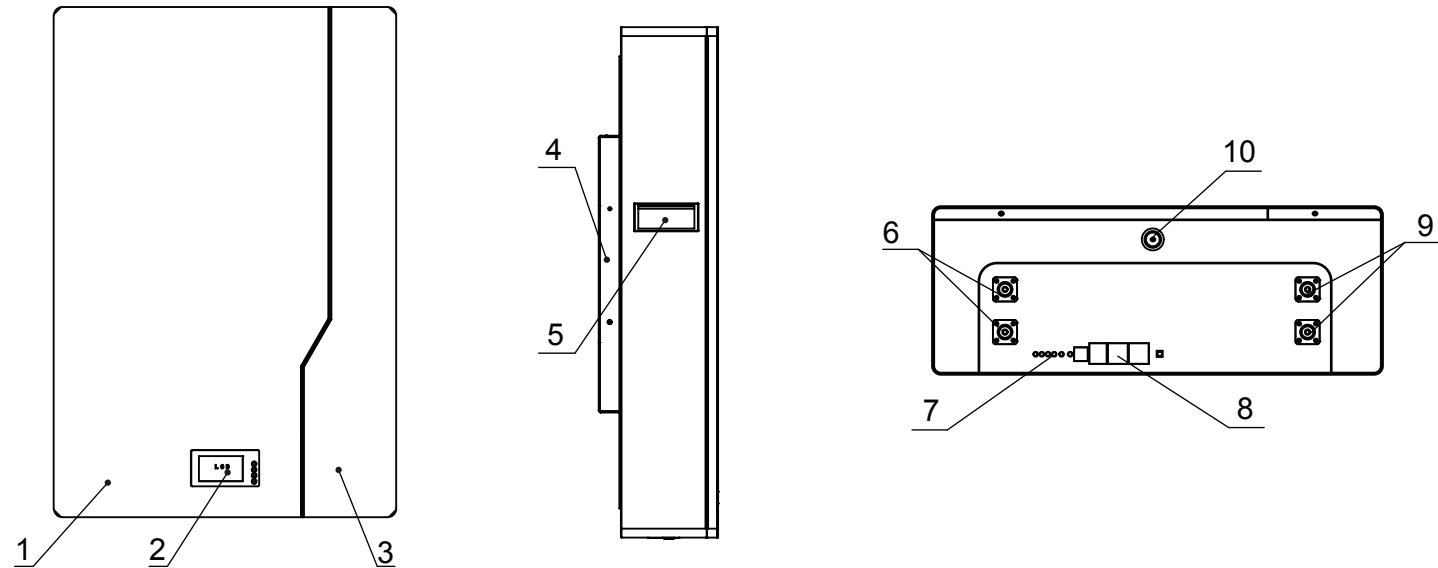
- LCD monitor the energy storage power data and operating status
- High-quality LiFePO4 battery, safety, deep cycle and long lifespan.
- Product round edge be more safe, avoid accident collision
- External main switch to reduce product power consumption and improve safety
- Wall brackets, which can meet the installation and use of different place.
- BMS built inside, over-voltage, over-load, over-temperature protection, etc
- Compatible, can be connected to different types of loads within the voltage range.
- Support up to 15 modules in parallel.

## Product application diagram:



## Parameters:

	Model	M16S100BL-V	M16S200BL-V
<b>Basic Characteristics</b>	Nominal Voltage	51.2V	51.2V
	Nominal Capacity	100Ah	200Ah
	Efficiency	>96%	>96%
	Inner Resistance	10mΩ	7mΩ
	Cell Type	LiFePO <sub>4</sub>	LiFePO <sub>4</sub>
<b>Charging Characteristics</b>	Charge Voltage	58.4V	58.4V
	Standard Charging Current	20A	40A
	Max.Continuous Charging Current	100A	100A
<b>Discharge Characteristics</b>	Standard Discharge Current	20A	40A
	Continuous Discharge Current	100A	100A
	Peak Discharge Current	200A(3S)	200A(3S)
	Discharge Cut-off Voltage	42V	42V
<b>Environmental Requirements</b>	Charge Temperature Range	0~60°C	0~60°C
	Discharge Temperature Range	-10°C~65°C	-10°C~65°C
	Storage Temperature Range	-5~40°C	-5~40°C
<b>Mechanical Characteristics</b>	Storage Humidity	65±20%HR	65±20%HR
	Size(LxWxH)	440×170×560mm	440×206×670mm
	Package Size (L×W×H)	625×520×335mm	750×520×385mm
	Shell Material	SPCC	SPCC
	Net Weight	42kg	73kg
	Gross Weight	53kg	91kg
<b>Others Characteristics</b>	Package Method	1pcs per carton	1pcs per carton
	Cycle Life	≥6000 times	≥6000 times
	Self Discharge	2% per month	2% per month
	SOC Indication	LED Light& LCD Screen	LED Light& LCD Screen
	Communication Protocol	RS485/CAN	RS485/CAN
Matching Inverter	Growatt, Goodwe, Deye, Luxpower, SRNE etc		



1	White plate	6	M6 Positive terminal (2pcs)
2	LCD display	7	Battery indicator
3	Black plate	8	RS485 /CAN
4	Wall mounted bracket	9	M6 Negative terminal (2pcs)
5	Handle	10	OFF/ON

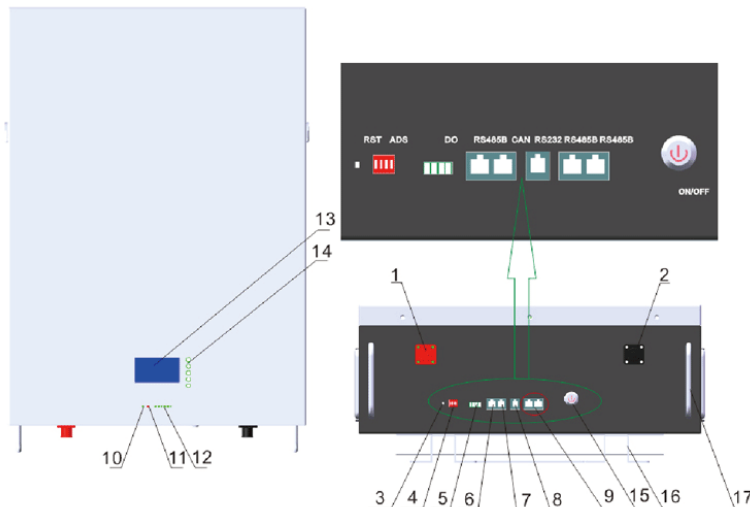
# Lithium Battery



## IBattery TJ-Battery wall series:

1. LiFePO4 composition – provides exceptional safety and longevity
2. High safety and reliability
3. 6,000 cycles/10 year service life
4. Consistent performance over wide temperature range
5. Wall-mounted, convenient installation
6. Integrated state-of-the-art BMS to manage and monitor battery information including voltage, current and temperature as well as balance cell charging/discharging rates
7. 5-10 year warranty

## Product overview:



No.	Description	Silk-screen	Remark
1	UES0600	P+ P+	Output terminal
2	UES0600	P- P-	Output terminal
3	port Reset button	RST	For reset the batter
4	Dial switch	ADS	Set the address
5	Do		
6	CANbus Port	CANbus	CANbus and inverter connection port
7	RS485A Port	RS485	RS485 and inverter connection port
8	RS232 Port	RS232	RS232 communication port
9	RS485B port	RS485	RS485 parallel communication interface
10	LED	RUN	Operation indicator
11	LED	ALM	Alarm indicator
12	LED	CAPACITY	Capacity indicator
13	LCD		
14	LCD Key		
15	Switch		
16	Bracket		
17	Handle		

## Technical Specifications-Battery wall Series

Model	IBATTERY-TJ-51.2V-100AH	IBATTERY-TJ-51.2V-200AH
Nominal Voltage	51.2V(16series)	
Capacity	100Ah	200Ah
Energy	5120Wh	10240Wh
Internal Resistance	≤30mΩ	
Cycle Life	≥5000 cycles @ 80% DOD, 25°C, 0.5C ≥4000 cycles @ 80% DOD, 40°C, 0.5C	
Design Life	≥10 years	
Charge Cut-off Voltage	56.0V±0.5V	
Max. Continuous Work Current	100A/150A(Can choose)	
Discharge Cut-off Voltage	45V±0.2V	
Charge Temperature	0°C~60°C (Under 0°C extra heating mechanism)	
Discharge Temperature	-20°C~60°C (Under 0°Cwork with reduced capacity)	
Storage Temperature	-40°C~55°C @ 60%±25% relative humidity	
Dimensions	680 x485 x180(220)mm	
Weight	Approx: 62kg	Approx: 98kg
Protocol (optional)	RS232-PC,RS485(B)-PC RS485(A)-Inverter,Canbus-Inverter	
Certification	UN38.3,MSDS,UL1973(Cell),IEC62619(Cell)	



# Lithium Battery



## Performance:

Compared with traditional lead-acid batteries, lithium battery packs are small and light.

## Advantage:

1. Environmental protection;
2. Light weight: only 30% of the weight of lead-acid batteries;
3. Long life: more than 2000 cycle life, life up to 10 years;
4. High power: provides twice the power output of lead acid batteries;
5. Temp. Range: low temperature discharge is better than lead-acid batteries.
6. Flexibility: modular design, can realize 4 series, multiple parallel.

## LFP Battery Application:



Home energy storage



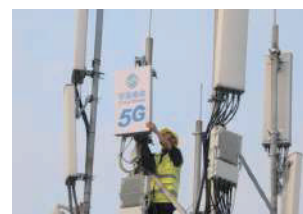
Solar street light



RV



UPS



base station back up



Electric wheelchair



power boating



EV



Golf cart



Emergency

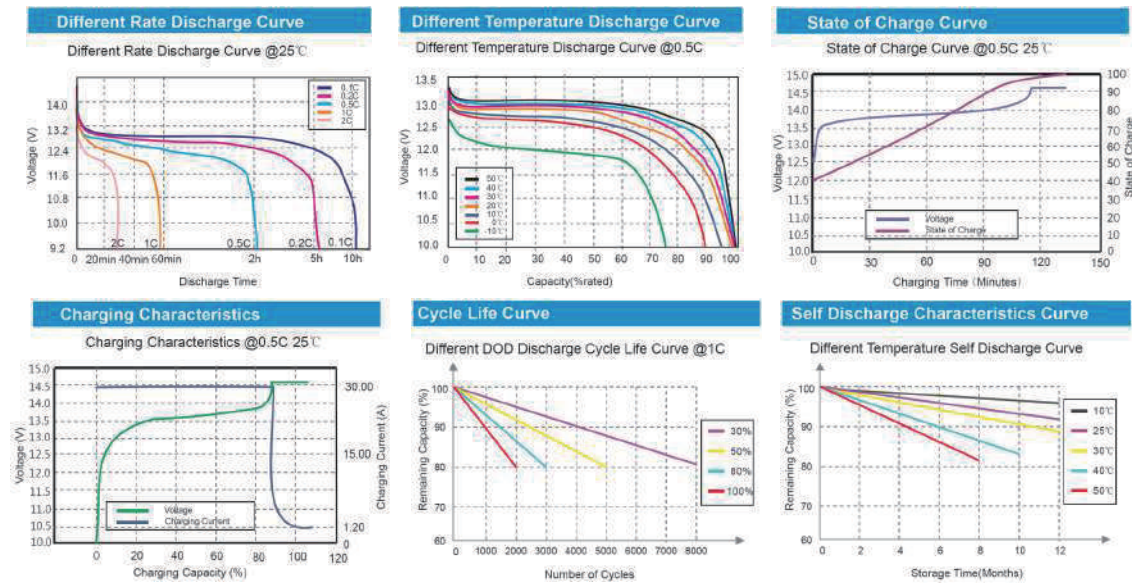


fishing

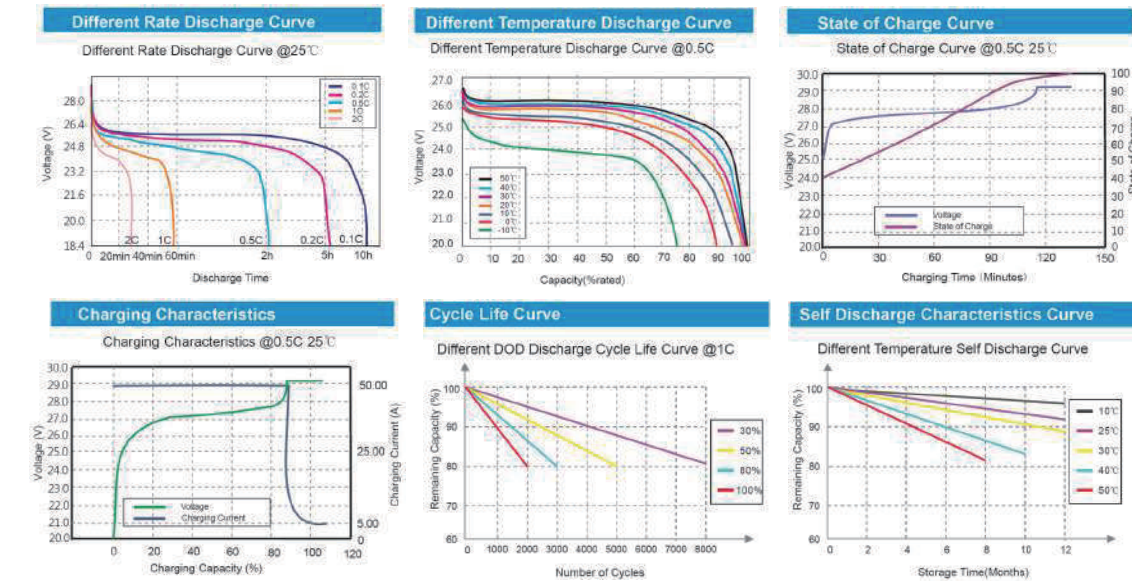


radio communication

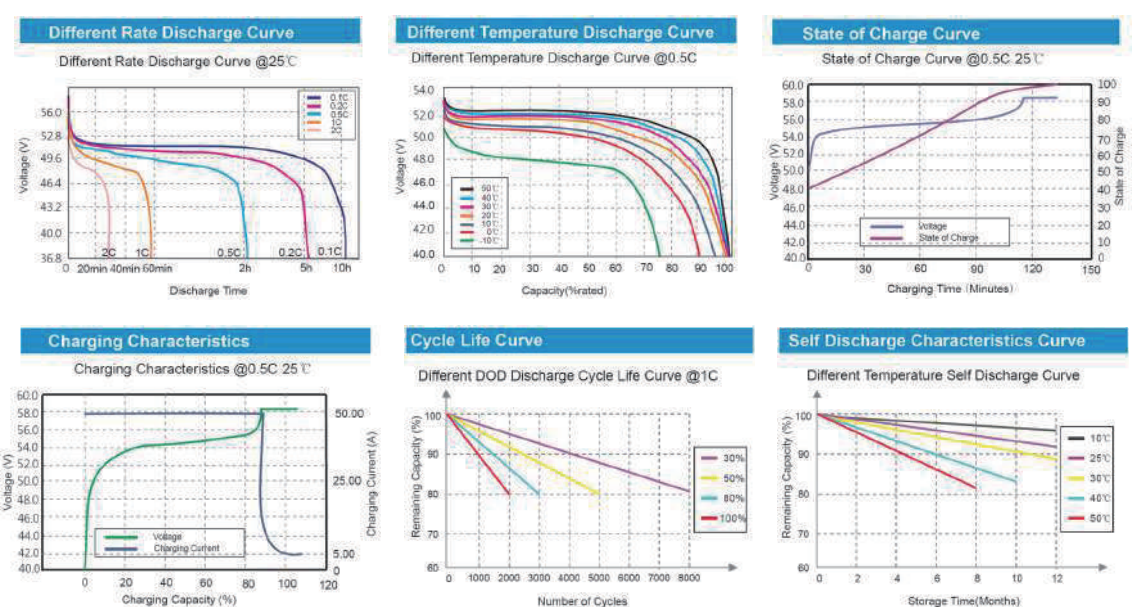
## 12V Series LFP Battery curves:



## 24V Series LFP Battery curves:



## 48V Series LFP Battery curves:





# Lithium Battery

Name	Model Type	Voltage (V)	CAPACITY	Length (mm)	Width (mm)	Height (mm)	Net Weight (Kg)	UN Box Packing Size	Packing Number	Recommend Largest Charging Voltage	Discharge Current(30 min)	Peak Current /3S	Material
Lithium Battery	12V6Ah	12.8	6	90	70	101	0.7	Inner Box 120*100*132mm Outer Box 400*245*295mm	12pcs/carton	6	10	30	ABS
	12V10Ah	12.8	10	151	65	94	1.2	Inner Box : 182*95*128mm Outer Box : 400*245*295mm	8pcs/carton	10	10	30	ABS
	12V12Ah	12.8	12	151	98	95	1.4	Inner Box 182*125*128mm Outer Box 400*245*295mm	4pcs/carton	12	12	30	ABS
	12V18Ah	12.8	18	181	77	167	2.1kg	Inner Box 220*120*210mm Outer Box 400*245*295mm	3pcs/carton	18	18	60	ABS
	12V20Ah	12.8	20	181	77	167	2.3kg	Inner Box 220*120*210mm Outer Box 400*245*299mm	3pcs/carton	20	20	60	ABS
	12V24Ah	12.8	24	181	77	167	2.8	Inner Box 220*120*210mm Outer Box 400*245*295mm	3pcs/carton	24	24	60	ABS
	12V30Ah	12.8	30	205	135	89	4	Inner Box 285*195*280mm Outer Box 420*300*305mm	2pcs/carton	30	30	60	PVC
	12V35Ah	12.8	35	195	130	170	4.2	Inner Box 285*195*280mm Outer Box 420*300*305mm	2pcs/carton	40	40	80	ABS
	12V36Ah	12.8	36	198	166	170	4.3	Inner Box 285*195*280mm Outer Box 420*300*305mm	2pcs/carton	35	35	70	ABS
	12V50Ah	12.8	50	229	138	208	5.5	Inner Box 285*195*280mm Outer Box 420*300*305mm	2pcs/carton	50	50	100	ABS
	12V60Ah	12.8	60	229	138	208	6.6	400*245*295mm	2pcs/carton	50	50	100	ABS
	12V65Ah	12.8	65	229	138	208	6.8	400*245*295mm	2pcs/carton	50	50	100	ABS
	12V100Ah	12.8	100	330	173	220	11	400*245*295mm	1pcs/carton	100	100	200	ABS
	12V150Ah	12.8	150	330	173	220	16.5	400*245*295mm	1pcs/carton	100	100	200	ABS
	12V190Ah	12.8	190	483	170	240	19	595*315*300mm	1pcs/carton	100	100	200	ABS
	12V200Ah	12.8	200	521	238	220	20	595*315*300mm	1pcs/carton	100	100	200	ABS
	12V250AH	12.8	250	522	240	218	25	595*315*300mm	1pcs/carton	150	200	400	ABS
	12V300AH	12.8	300	521	238	220	28	595*315*300mm	1pcs/carton	200	200	400	ABS
	12V400AH	12.8	400	521	238	220	38	620*355*305mm	1pcs/carton	200	200	400	ABS
	24v50AH	25.6	50	330	173	220	11	400*245*295mm	1pcs/carton	50	50	150	ABS
24v100AH	25.6	100	521	238	220	20	540*270*270	1pcs/carton	100	100	200	ABS	
24v150AH	25.6	150	521	238	220	28	620*355*305mm	1pcs/carton	100	100	200	ABS	
24v200AH	25.6	200	521	269	220	40	620*355*305mm	1pcs/carton	100	100	200	ABS	

**Remark:**

- Capacity above 100ah can do customization: Voltage Display: +5USD; Heating Function: +55USD; BLE Function: +25USD; Capacity Display: +65USD
- 1206/1210/1212/1218/1220/1236/1250/12100/12150/12200 with FCC, CE-EMC, ROHS, Battery Command, UN38.3/SDS, UN Packing Box, 12100 and 12200 got IEC62619

# GEL Battery



## ■ Attentions

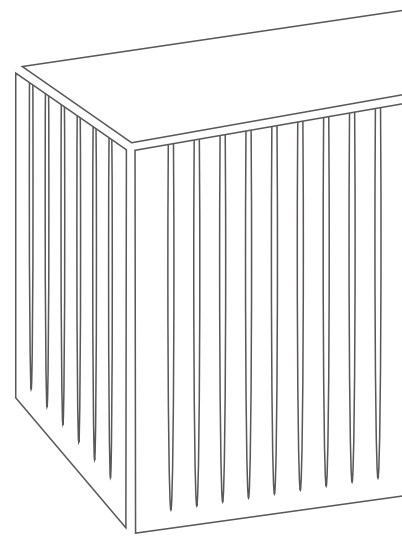
- 1) Examine the appearance of the battery before use.
- 2) Store the battery in a cool place(best below 20°C or 68°F).
- 3) Recharge the battery that has been stored more than 3 months.
- 4) Charge the battery in a well-ventilated environment.
- 5) Regularly survey batteries' Charging Voltage to make sure it in the range of Chart 1.
- 6) Secure the battery firmly installed in equipments.

## Note:

- 1) C: means Ah value of battery's rated capacity.
- 2) When ambient temperature is below 15°C or above 35°C, the recommended compensation factor is -3mV/°C/cell(Floating Charge) or -4mV/°C/cell(Cycle) starting from the standard center point -25°C.
- 3) Battery temperature in charging should be in the range of -15°C~50°C.

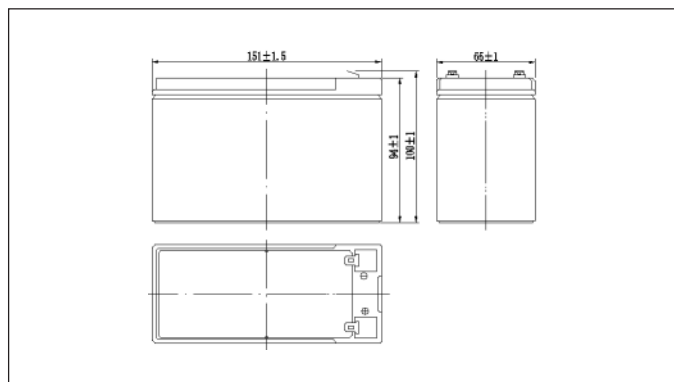
## Prohibitions

- 1) Burn the battery or put it near fire.
- 2) Short circuit the battery.
- 3) Use the battery in an airtight cabinet.
- 4) Dissect the battery.
- 5) Load and unload the battery roughly.
- 6) Attempt to use a cracked, deformed, or leaky battery.
- 7) Subject the battery to excess vibration or violent jolts.
- 8) Mixed use different batches of the battery.

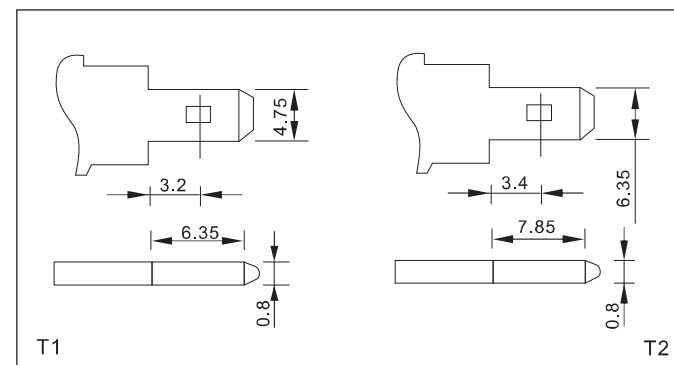


## NPP-GEL-12V-7AH:

### ● Outer dimensions (mm)

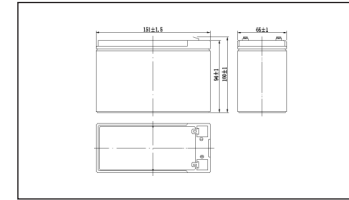


### ● Terminal Type (mm)

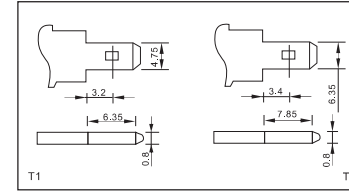


## NPP-GEL-12V-9AH:

### ● Outer dimensions (mm)

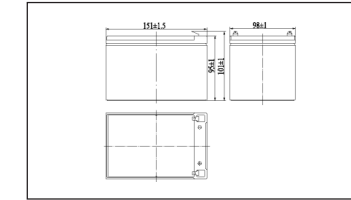


### ● Terminal Type (mm)

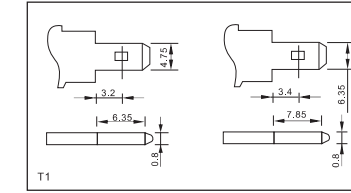


## NPP-GEL-12V-12AH:

### ● Outer dimensions (mm)

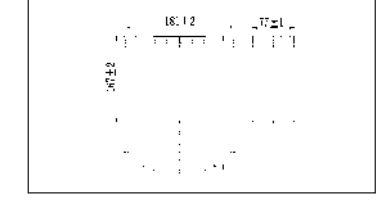


### ● Terminal Type (mm)

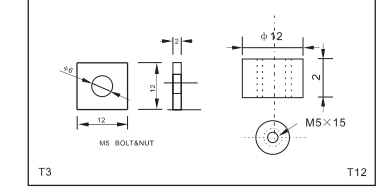


## NPP-GEL-12V-17AH:

### ● Outer dimensions (mm)

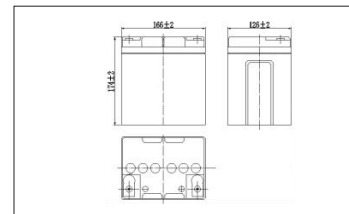


### ● Terminal Type (mm)

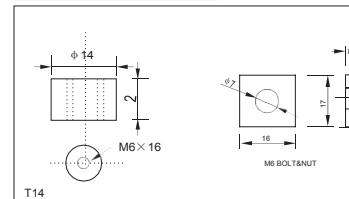


## NPP-GEL-12V-24AH:

### ● Outer dimensions (mm)

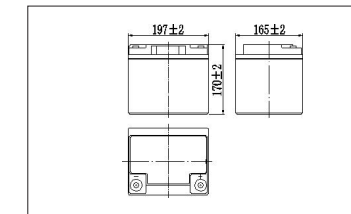


### ● Terminal Type (mm)

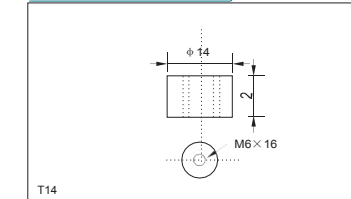


## NPP-GEL-12V-38AH:

### ● Outer dimensions (mm)

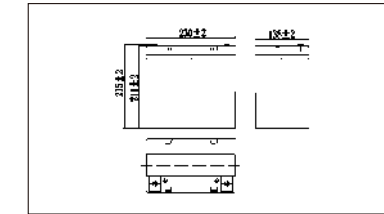


### ● Terminal Type (mm)

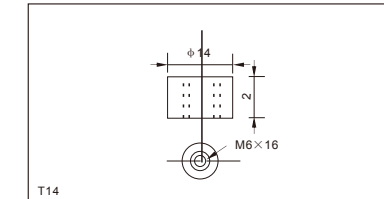


## NPP-GEL-12V-50AH:

### ● Outer dimensions (mm)

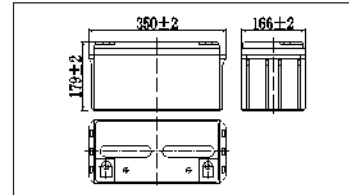


### ● Terminal Type (mm)

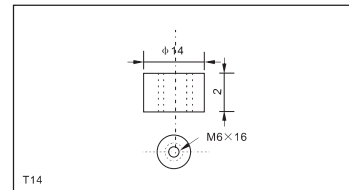


## NPP-GEL-12V-65AH:

### ● Outer dimensions (mm)

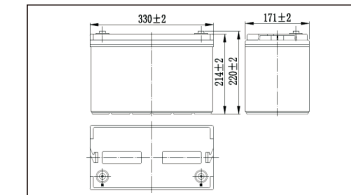


### ● Terminal Type (mm)

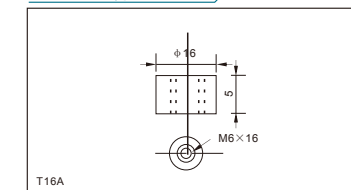


## NPP-GEL-12V-100AH:

### ● Outer dimensions (mm)

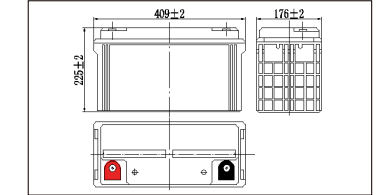


### ● Terminal Type (mm)

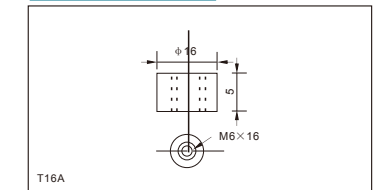


## NPP-GEL-12V-120AH:

### ● Outer dimensions (mm)

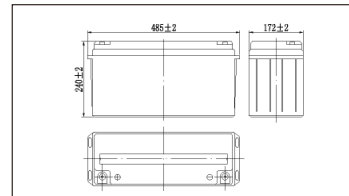


### ● Terminal Type (mm)

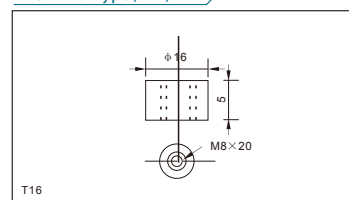


## NPP-GEL-12V-150AH:

### ● Outer dimensions (mm)

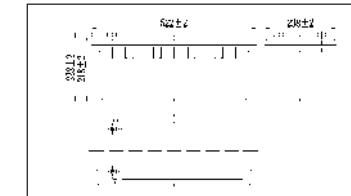


### ● Terminal Type (mm)

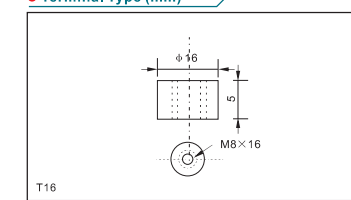


## NPP-GEL-12V-200AH:

### ● Outer dimensions (mm)

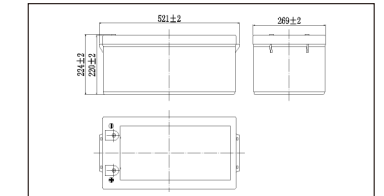


### ● Terminal Type (mm)

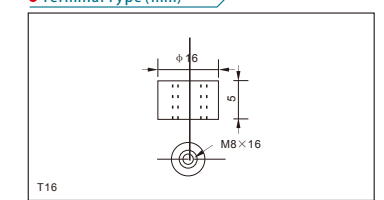


## NPP-GEL-12V-250AH:

### ● Outer dimensions (mm)



### ● Terminal Type (mm)



# GEL Battery

Capacity 25°C	20HR(10.5V)	7Ah	9Ah	12Ah	17Ah	24Ah	38Ah	50Ah	65Ah	100Ah	120Ah	150Ah	200Ah	250Ah
	10HR(10.5V)	6.5Ah	8.4Ah	11Ah	16Ah	22Ah	28.5Ah	37.5Ah	48Ah	75Ah	90Ah	112.5Ah	150Ah	187.5Ah
	1HR(9.60V)	4.2Ah	5.4Ah	7.1Ah	10.5Ah	15Ah	21Ah	27.5Ah	36Ah	55Ah	66Ah	83Ah	110Ah	140Ah
Terminal type		T1/T2	T1/T2	T2/T1	T3/T12	T14/T5	T14	T14	T14	T16A	T16A	T16	T16	T16
Internal resistance (Fully charged,25°C)		Approx.25mΩ	Approx.19mΩ	Approx.19mΩ	Approx.17mΩ	Approx.13mΩ	Approx.10mΩ	Approx.7mΩ	Approx.7mΩ	Approx.5mΩ	Approx.4.5mΩ	Approx.3.8mΩ	Approx.3.3mΩ	Approx.2.8mΩ
Capacity affected by temperature (20HR)	40°C	102%												
	25°C	100%												
	0°C	85%												
	-15°C	65%												
Self-discharge (25°C)	3 months	Remaining Capacity 91%												
	6 months	Remaining Capacity 82%												
	12 months	Remaining Capacity 65%												
Nominal operating temperature		25°C±2°C(77°F±5°F)												
Operating temperature range	Discharge	-15°C~50°C(5°F-122°F)												
	Charge	-10°C~50°C(14°F-122°F)												
	Storage	-20°C~50°C(-4°F-122°F)												
Float charging voltage(25°C)		13.50 to 13.80V Temperature compen sation -18mV/°C												
Cyclic charging voltage(25°C)		14.50 to 15.00V Temperature compen sation -30mV/°C												
Maximum charging current	2.1A	2.7A	3.6A	5.1A	7.2A	11.4A	10A	13A	20A	24A	30A	40A	50A	
Maximum discharge current	105A(5 sec)	135A(5 sec)	180A(5 sec)	255A(5 sec)	306A(5 sec)	380A(5 sec)	500A(5 sec)	650A(5 sec)	800A(5 sec)	950A(5 sec)	1200A(5 sec)	1400A(5 sec)	1500A(5 sec)	
Designed floating life(20°C)	5 years					10 years	12 years	12 years	12 years	12 years	10 years	10 years	12 years	12 years
Nominal Voltage	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V	12V
Rated capacity (20 hour rate)	7Ah	9Ah	12Ah	17Ah	24Ah	38Ah	50Ah	65Ah	100Ah	120Ah	150Ah	200Ah	250Ah	
Dimensions	Length	151±1.5mm(5.94inch)		151±1.5mm(5.94inch)	181±2mm(7.13inch)	166±2mm(6.54inch)	197±2mm(7.76inch)	230±2mm(9.06inch)	350±2mm(13.78inch)	330±2mm(12.99inch)	409±2mm(16.1inch)	485±2mm(19.09inch)	522±2mm(20.55inch)	521±2mm(20.51inch)
	Width	65±1mm(2.56inch)		98±1mm(3.86inch)	77±1mm(3.03inch)	126±2mm(4.96inch)	165±2mm(6.5inch)	138±2mm(5.43inch)	166±2mm(5.54inch)	171±2mm(6.73inch)	176±2mm(6.93inch)	172±2mm(6.77inch)	238±2mm(9.37inch)	269±2mm(10.59inch)
	Height	94±1mm(3.70inch)		95±1mm(3.74inch)	167±2mm(6.57inch)	174±1mm(6.85inch)	170±2mm(6.69inch)	211±2mm(8.31inch)	179±2mm(7.05inch)	214±2mm(8.43inch)	225±2mm(8.86inch)	240±2mm(9.45inch)	218±2mm(8.58inch)	220±2mm(8.66inch)
	Total Height	100±1mm(3.94inch)		101±1mm(3.98inch)	167±2mm(6.57inch)	T14:174± 2mm(6.85inch) T5:181±2mm	170±2mm(6.69inch)	215±2mm(8.46inch)	179±2mm(7.05inch)	220±2mm(8.66inch)	225±2mm(8.86inch)	240±2mm(9.45inch)	222±2mm(8.74inch)	224±2mm(8.82inch)
Approx. Weight	2.1 kg(4.63lbs)±4%		2.65kg(5.84lbs)±4%	3.4kg(7.5lbs)±4%	5kg(11.0lbs)±4%	7.5kg(16.5lbs)±4%	11.8kg(26lbs)±4%	17.3kg(35.7lbs)±3%	18.3kg(46.3lbs)±3%	28.5kg(67.2lbs)±3%	33kg(79.4lbs)±3%	41.5kg(98.1lbs)±3%	54.5kg(137.8lbs)±3%	69.5kg(164.2lbs)±3%