

6-SPB Series

Spiral Pure Lead Battery
6-SPB-50A



shoto



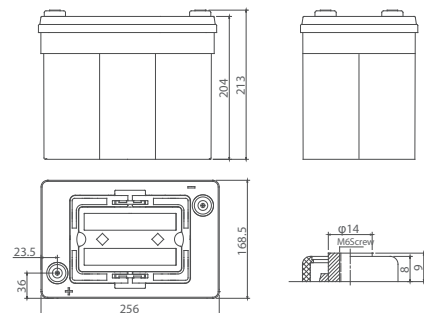
Main Applications

- UPS
- Communication station
- Solar energy storage
- Smart grid
- Diferent standby power supply

Benefits

- Applicable in $-45^{\circ}\text{C} \sim 75^{\circ}\text{C}$
- The cycle life of 100% DOD reaches more than 350 times
- The designed float life is 15 years
- The time of high rate discharge is two times more than ordinary battery

Dimensions



Technical Parameters

Nominal Voltage	12 V
Capacity	50 Ah @ 10hr to 1.80 V per cell @ 25°C (77°F)
Weight	18 kg (39.68 lbs)
Dimensions	Length:256 mm (10.08 in) Width:168.5 mm (6.63 in) Height:204 mm (8.03 in) Total height:213 mm (8.39 in)
Internal Resistance (full charged)	2.9 mΩ
Short- circuit Current	2251 A
Self Discharge @25°C(77°F)	Less than 8% after 90 days storage
Operating Temperature Range	Discharge: $-45^{\circ}\text{C} \sim 75^{\circ}\text{C}$ ($-49^{\circ}\text{F} \sim 167^{\circ}\text{F}$) Charge: $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$ ($-4^{\circ}\text{F} \sim 122^{\circ}\text{F}$) Storage: $-20^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ($-4^{\circ}\text{F} \sim 104^{\circ}\text{F}$)
Recommended Operating Temperature	$15^{\circ}\text{C} \sim 35^{\circ}\text{C}$
Recommended Charging Current	5 A~20 A
Charging Voltage @25°C(77°F)	Float: 2.25 V/cell, Temps coefficient $-3\text{mV}/\text{cell}\cdot^{\circ}\text{C}$ Cycle: 2.40 V/cell
Terminal	M6
Capacity Affected by Temperature(C_{10})	105% @ 40°C (104°F) 95% @ 0°C (32°F) 80% @ -20°C (-4°F)

Certification

- ISO9001
(03006Q10084R1M)
- ISO14001
(03004E10097R0M)
- ISO18001
(03006S10002R0M)

Technical Features

- With ultra-thin high purity lead frame design, a higher charge efficiency with trickle current is achieved
- With unique spiral wound design, the dehydration and bulging deformation of the battery are avoided in high-temperature
- Excellent fast charging performance, more than 95% of electricity is gained within 40 minutes
- Good battery consistency, available more strings in parallel

6-SPB Series

Spiral Pure Lead Battery

6-SPB-50A



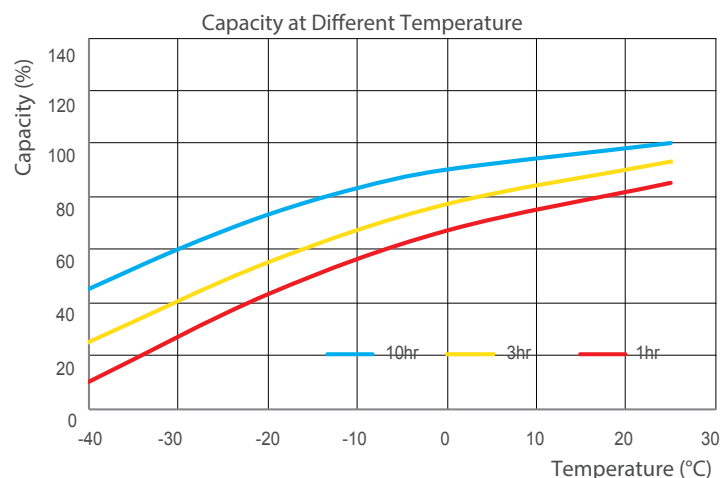
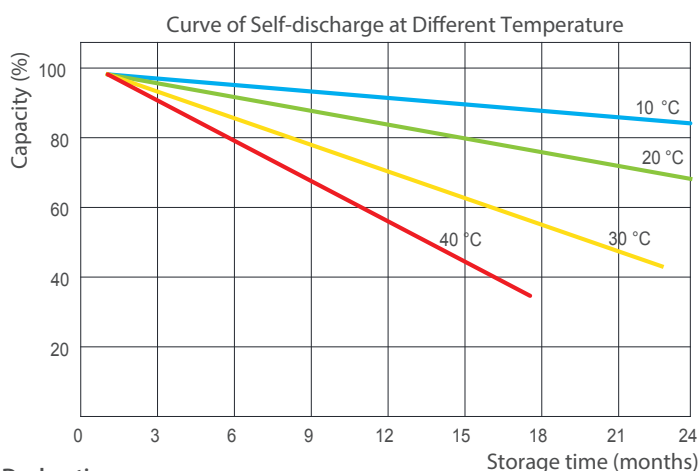
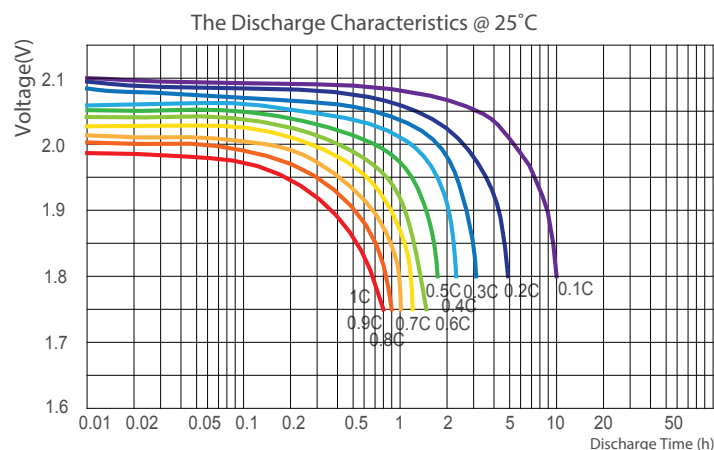
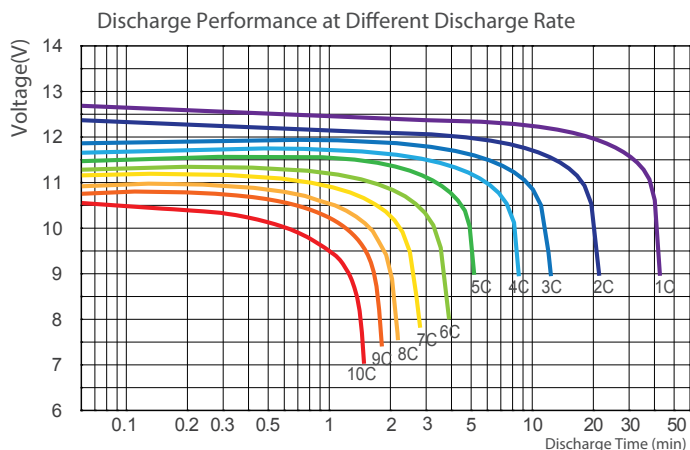
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	2min	5min	10min	15min	20min	30min	45min	1hr	2hr	3hr	4hr	5hr
1.85V	260.0	188.7	126.7	98.0	83.0	63.5	44.5	36.3	21.1	13.8	9.8	8.1
1.75V	353.3	237.3	153.3	120.0	89.1	66.2	47.0	38.3	21.4	14.9	11.3	8.8
1.65V	412.0	260.0	165.3	123.3	94.1	70.1	49.1	39.0	21.8	15.3	11.3	8.9

Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

F.V/Time	2min	5min	10min	15min	20min	30min	45min	1hr	2hr	3hr	4hr	5hr
1.85V	483.3	361.1	250.0	190.0	163.3	117.9	87.8	73.9	40.9	26.8	19.3	16.0
1.75V	611.1	436.1	298.9	222.2	183.3	129.0	94.4	75.6	41.0	28.9	21.9	17.4
1.65V	705.6	477.8	305.6	227.4	186.7	132.1	95.6	76.7	41.4	29.5	22.1	17.5

Performance curve



***Declaration:**

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

Welcome to Visit : www.chinashoto.com