

6-SPB Series

Spiral Pure Lead Battery
6-SPB-50A



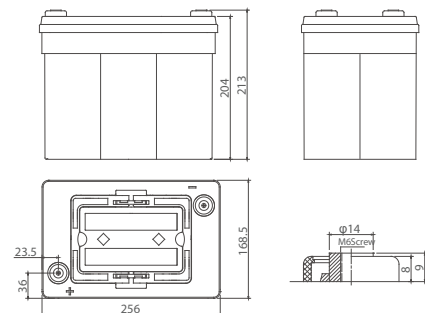
Main Applications

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

Benefits

- ▣ Applicable in -45°C ~ 75°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°C ~ 75°C (-49°F ~ 167°F) Charge: -20°C ~ 50°C (-4°F ~ 122°F) Storage: -20°C ~ 40°C (-4°F ~ 104°F)
Recommended Operating Temperature	15°C ~ 35°C
Recommended Charging Current	5 A~20 A
Charging Voltage @25°C(77°F)	Float: 2.25 V/cell, Temps coefficient -3mV/ cell·°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

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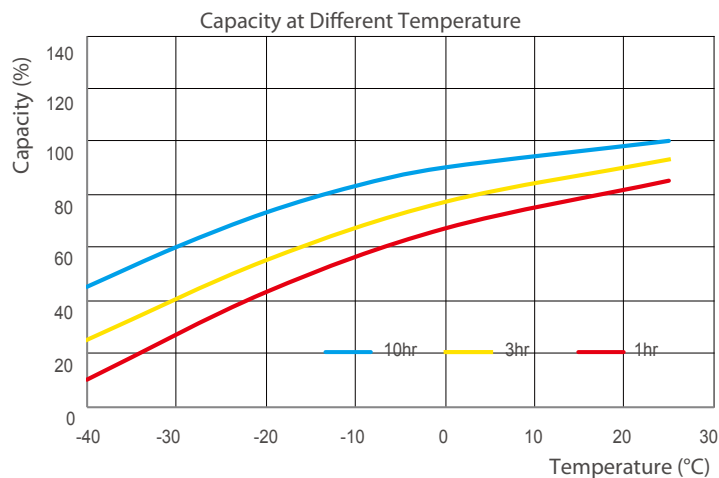
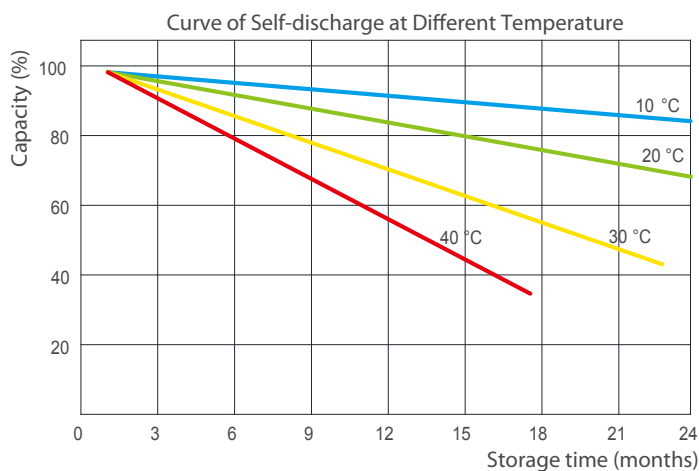
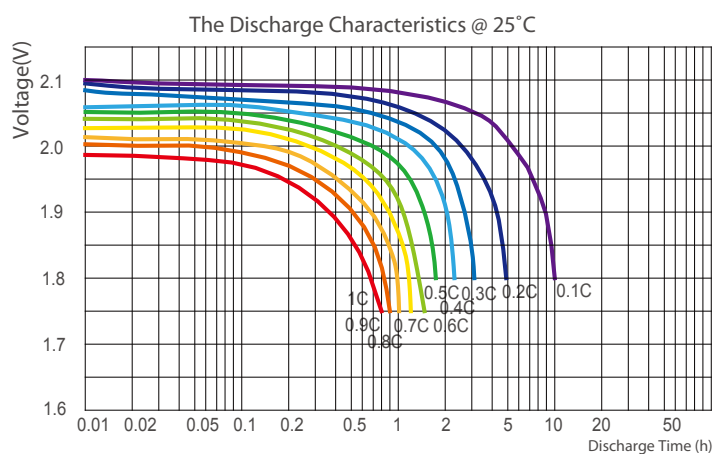
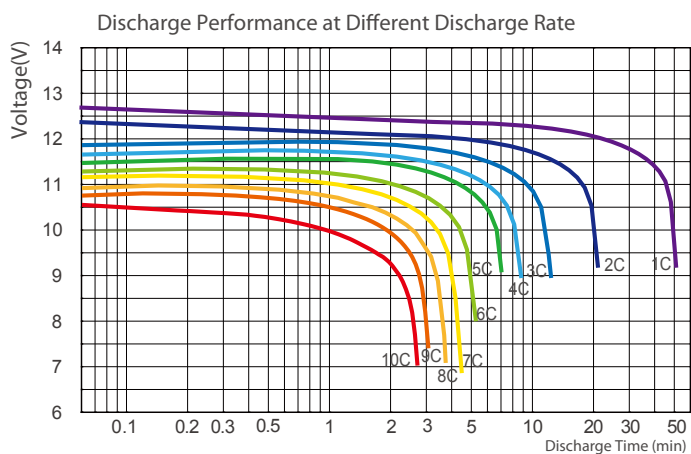
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	2min	5min	10min	15min	20min	30min	45min	1hr	2hr	3hr	4hr	5hr
1.85V	290.1	223.6	142.9	109.1	89.1	66.2	50.2	40.4	21.9	14.3	10.2	8.4
1.75V	367.6	277.7	163.6	119.6	98.2	69.0	51.7	41.8	22.3	15.6	11.7	9.2
1.65V	444.1	279.4	170.5	125.3	101.9	73.4	53.5	43.1	22.7	15.9	11.8	9.3

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	544.4	422.6	272.0	209.1	172.0	128.6	98.2	79.6	43.4	28.6	20.5	17.0
1.75V	662.9	464.8	301.3	222.7	184.6	131.1	99.3	81.0	43.7	30.7	23.2	18.5
1.65V	773.5	493.6	305.2	227.4	187.5	136.9	101.0	82.5	44.0	31.3	23.6	18.7

Performance curve



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