



POWER SOLID

The Crown of Power Solution

A G M Battery  
PS-645-AS  
6V , 4.5Ah

## General Features

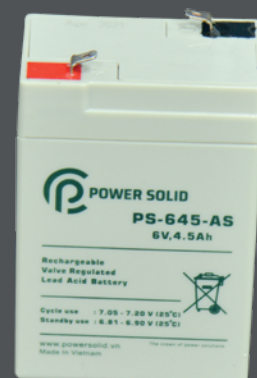
- Designed floating charging service life: 8 years (25°C)
- Sealed and maintenance free operation
- Safety valve installation for explosion proof
- Low self-discharge characteristic
- Wide operating temperature range from 0°C~40°C
- Lead Aluminum calcium Tin alloy high energy, prevent corro-

## Application

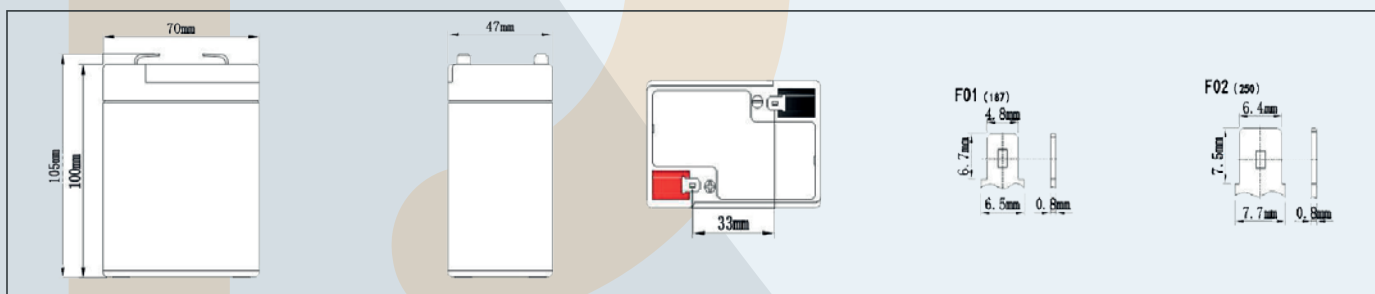
- DC power supply
- UPS/EPS power supply
- Medical equipments
- Emergency lighting systems

## Physical Specification

Nominal Voltage	Nominal Capacity (20HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
6V	4.5AH	70±2mm	47±1mm	100±2mm	105±2mm	Approx 0.74kg 1.628lbs)	≈18.0 mΩ	F01/F02 (standard)



## Dimensions



## Constant-Voltage Charge

Rated Capacity	
20 hour rate (0.225A)	4.50AH
10 hour rate (0.45A)	4.18AH
5 hour rate (0.76A)	3.60AH
27 minute rate (4.5A)	2.03AH
7 minute rate (13.5A)	1.58AH
Capacity affected by Temperature	
40°C(104°F)	103%
25°C(77°F)	100%
0°C(32°F)	86%

Cycle Application
1. Limit initial current less than 1.125A.
2. Charge until battery voltage (under charge) reaches 7.05V to 7.20V at 25°C(77°F).
3. Hold at 7.05V to 7.20V until current drop to under 0.027A for at least 3 hours.
4. Temperature compensation coefficient of charging voltage is -15mV/°C.
Standby Service
1. Hold battery across constant voltage source of 6.8 to 6.9 volts with current limit 1.125A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.
2. Temperature compensation coefficient of charging voltage is -9mV/°C.



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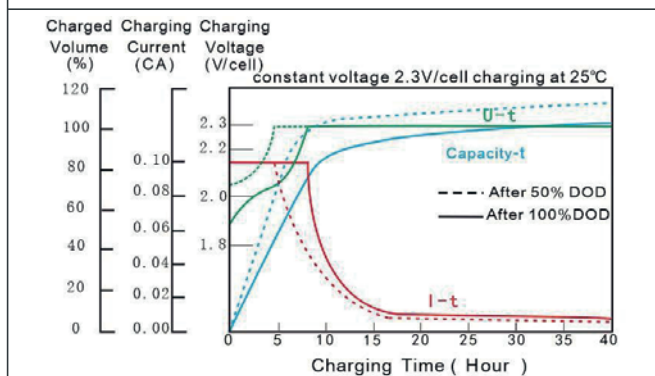
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## Battery Discharge Table

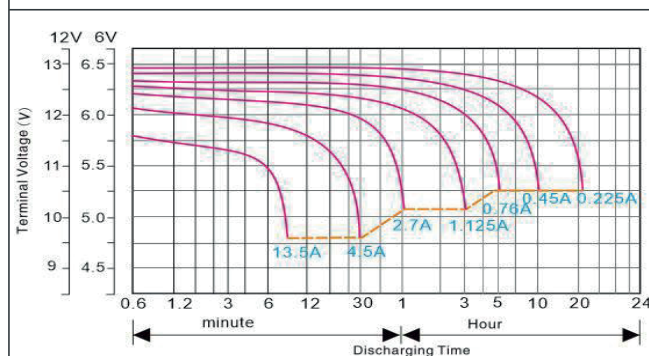
End Voltage (V)	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (Amperes at 25°C)													
5.10	16.63	11.10	8.84	4.54	3.41	2.57	2.09	1.60	1.20	0.754	0.505	0.437	0.230
5.25	15.94	10.89	8.65	4.40	3.33	2.55	2.05	1.54	1.16	0.742	0.500	0.433	0.228
5.40	15.08	10.63	8.41	4.24	3.19	2.53	2.00	1.47	1.12	0.730	0.495	0.428	0.225
Constant Power Discharge Data Sheet (Watt at 25°C)													
5.10	90.7	65.40	52.95	29.90	21.80	16.58	12.72	9.57	6.83	4.50	3.17	2.57	1.38
5.25	86.9	63.20	51.35	29.28	21.29	16.32	12.53	9.43	6.68	4.45	3.15	2.53	1.36
5.40	82.4	60.85	49.70	28.43	20.75	16.05	12.35	9.30	6.56	4.40	3.11	2.49	1.34

## Performance Characteristics

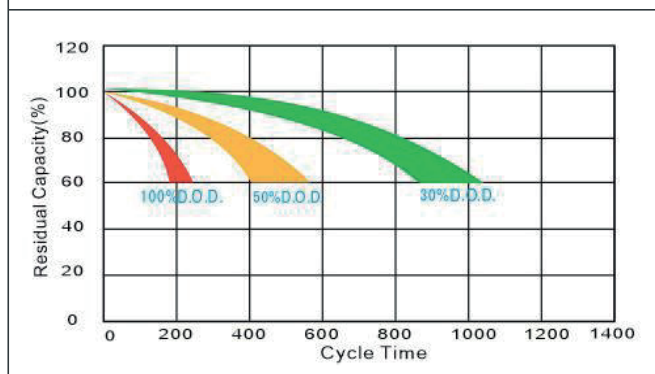
### Charge Characteristics (25°C/77°F)



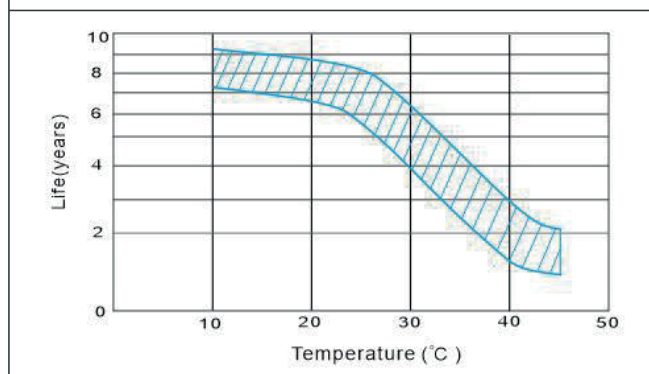
### Discharge Characteristic (25°C/77°F)



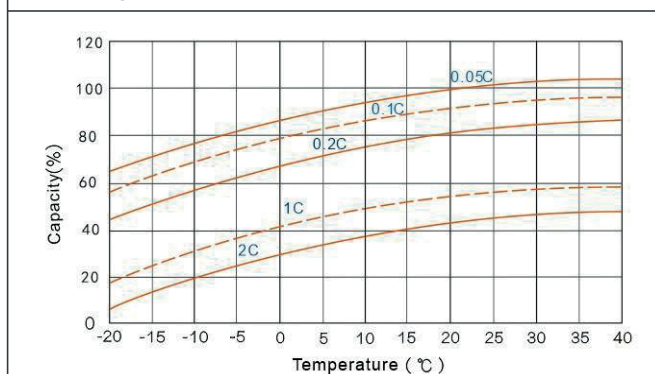
### Cycle Life in Relation to Depth of Discharge



### Temperature vs Float Life



### Capacity Curve At Different Temperature



### Self Discharge Characteristics

