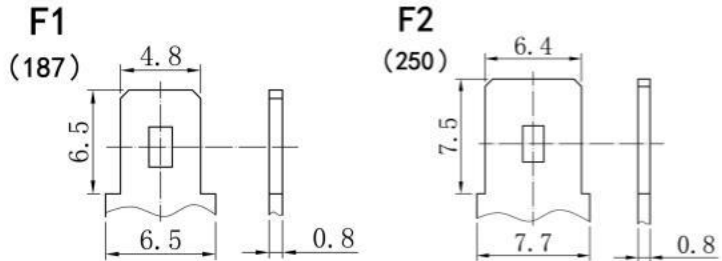


# Valve Regulated Lead-Acid Battery

Model: BT-6M4.5AC(6V4.5AH)



### Application

- ☆ Measuring equipment and instrument
- ☆ Telephone sets
- ☆ Lighting equipment
- ☆ Security systems
- ☆ UPS power supply

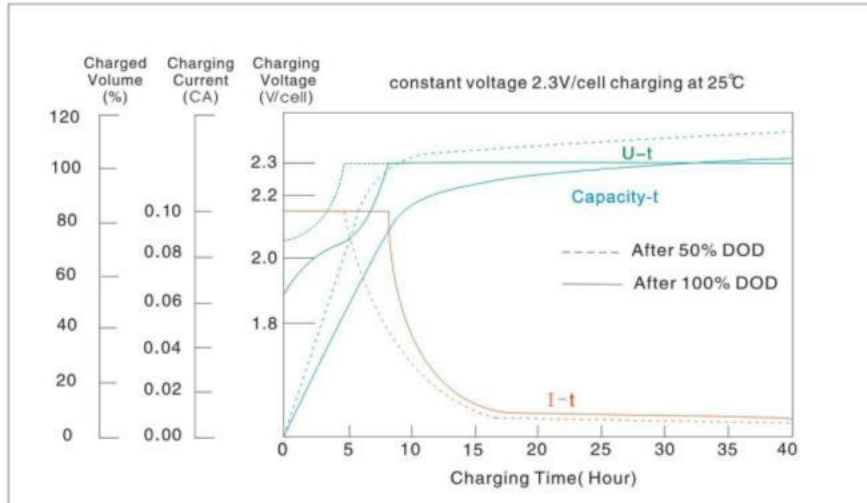
### General Features

- ☆ 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 corrosion

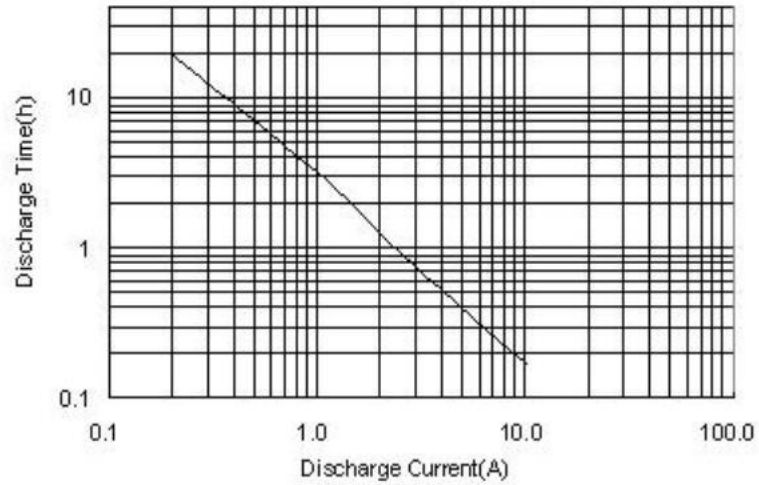
PHYSICAL SPECIFICATIONS		
<b>Nominal Voltage</b>		
	6V	
<b>Nominal Capacity (20HR)</b>		
	4.5AH	
<b>Dimensions</b>	<b>Length</b>	70±2mm
	<b>Width</b>	47±2mm
	<b>Container height</b>	100±2mm
	<b>Total Height (with terminal)</b>	105±2mm
<b>Weight±3%</b>		
	Approx 0.76Kg(1.67lbs)	
<b>Internal Resistance(In full charge status)</b>		
	≈13mΩ	
<b>Standard Terminals</b>		
	F1/F2(standard)	

Constant – Voltage Charge	
<b>Cycle application</b>	<ol style="list-style-type: none"> <li>1. Limit initial current less than 1.125A.</li> <li>2. Charge until battery voltage (under charge) reaches 7.05V to 7.2V at 25°C (77F) .</li> <li>3. Hold at 7.05V to 7.2V until current drop to under 0.027A for at least 3 hours.</li> <li>4. Temperature compensation coefficient of charging voltage is -15mV/°C.</li> </ol>
<b>Standby service</b>	<ol style="list-style-type: none"> <li>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.</li> <li>2. Temperature compensation coefficient of charging voltage is -9mV/°C</li> </ol>
<p>NOTE : The battery should be charged within 6 months of storage ,Otherwise , permanent loss of capacity might occur as a result of sulfation</p>	

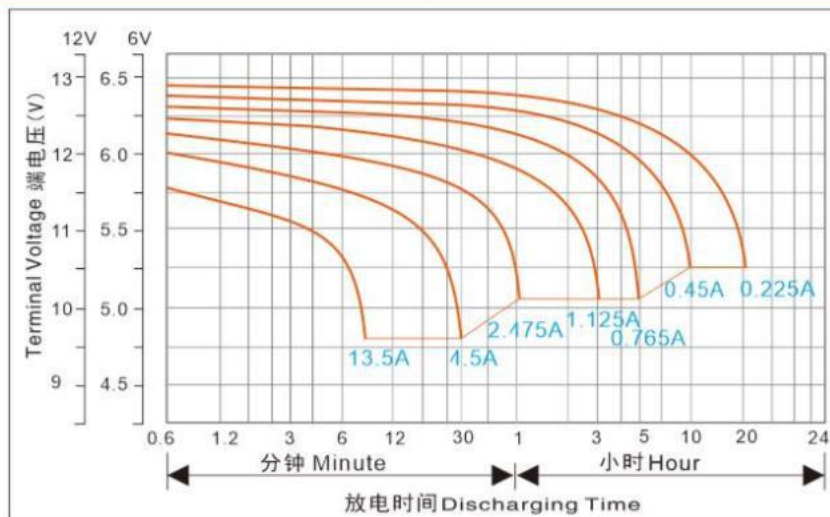
## Charge Characteristics



## Discharge Current & Discharge Duration Time (25°C/77°F)



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



## ELECTRICAL SPECIFICATIONS

<b>Rated Capacity</b>	20 hour rate(225mA)	4.50AH
	10 hour rate(450mA)	4.48AH
	5 hour rate(765mA)	3.65AH
	27 minute rate (4.5A)	2.25AH
	7 minute rate (13.5A)	1.58AH
<b>Capacity affected by Temperature (20Hour Rate)</b>	40°C(104°F)	103%
	25°C(77°F)	100%
	0°C(32°F)	86%

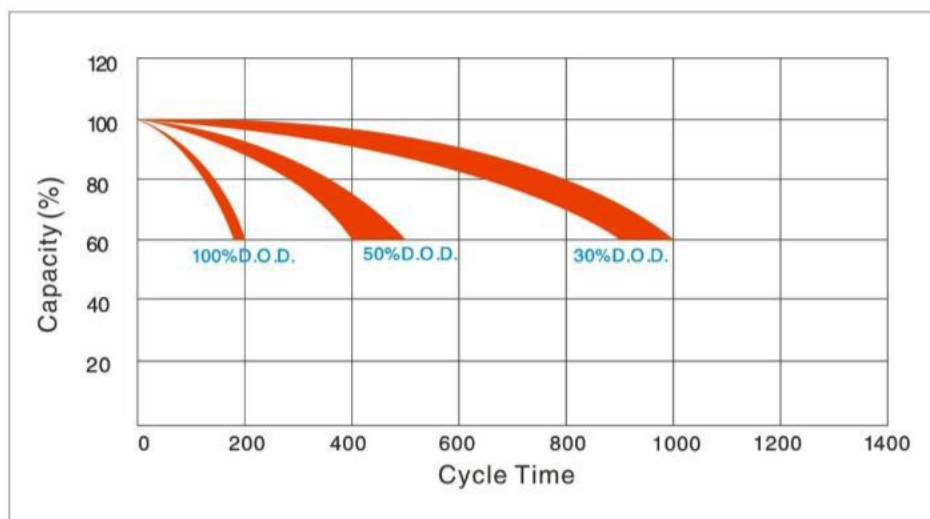
### Constant Current Discharge Data Sheet ( Amperes at 25°C)

End Voltage	Minute (M)					Hour (H)								
	5	10	20	30	45	1	1.5	2	3	4	5	8	10	20
<b>5.10</b>	16.63	11.10	6.49	4.54	3.41	2.57	2.09	1.60	1.20	0.889	0.754	0.505	0.437	0.230
<b>5.25</b>	15.94	10.89	6.33	4.40	3.33	2.55	2.05	1.54	1.16	0.872	0.742	0.500	0.433	0.228
<b>5.40</b>	15.08	10.63	6.11	4.24	3.19	2.53	2.00	1.47	1.12	0.855	0.730	0.495	0.428	0.225

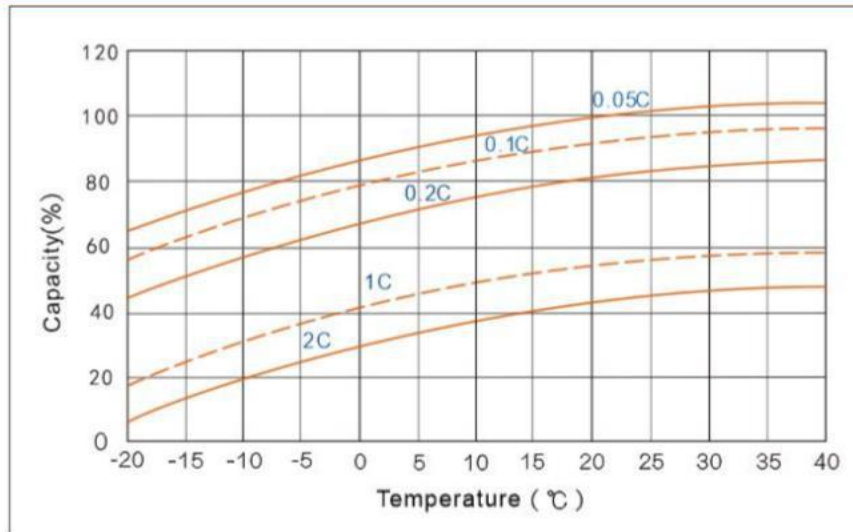
### Constant Power Discharge Data Sheet ( Watt at 25°C)

End Voltage	Minute (M)					Hour (H)								
	5	10	20	30	45	1	1.5	2	3	4	5	8	10	20
<b>5.10</b>	90.7	65.4	39.84	29.89	21.79	16.58	12.72	9.57	6.83	5.64	4.50	3.17	2.57	1.38
<b>5.25</b>	86.9	63.2	38.88	29.28	21.29	16.32	12.53	9.43	6.67	5.52	4.45	3.14	2.53	1.36
<b>5.40</b>	82.4	60.9	37.92	28.43	20.75	16.05	12.34	9.30	6.56	5.39	4.40	3.11	2.48	1.34

### The Relationship Between Lifetime and Depth Of Discharge(25°C/77°F)



## Capacity Curve at Different Temperature



## Storage Characteristics

