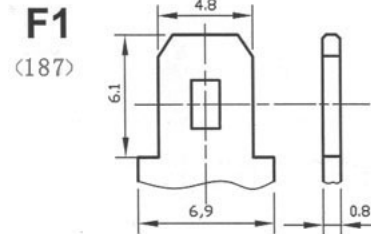


## Valve Regulated Lead-Acid Rechargeable Battery



Model: BT-12M7.0AT(12V7.0AH)



### Application

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

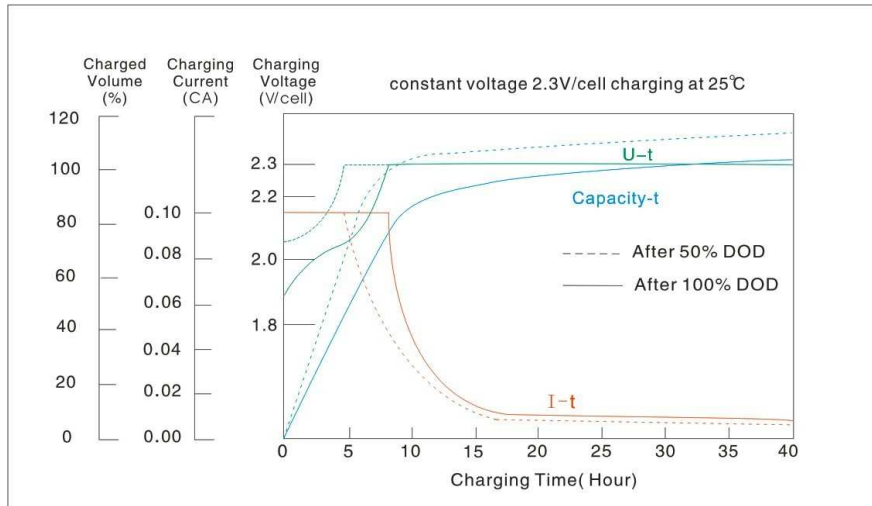
### General Features

- ☆ 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 10°C-40°C
- ☆ Lead Aluminum calcium Tin alloy high energy, prevent corrosion

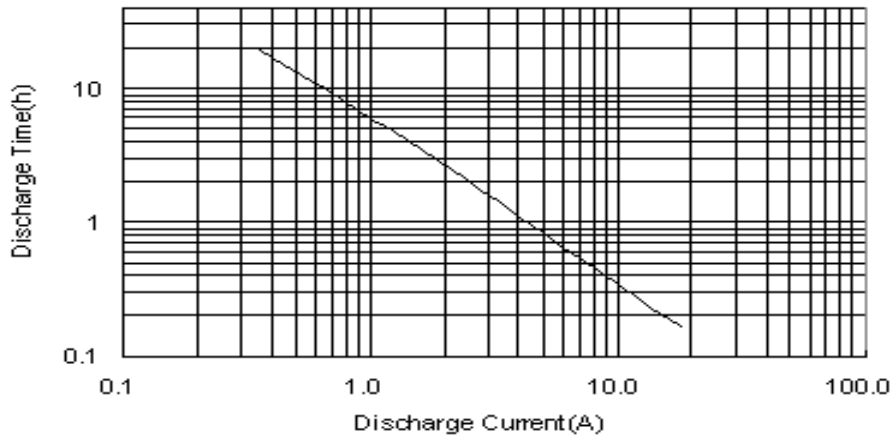
PHYSICAL SPECIFICATIONS		
<b>Nominal Voltage</b>		
	12V	
<b>Nominal Capacity (20HR)</b>		
	7.0AH	
<b>Dimensions</b>	<b>Length</b>	151±2mm
	<b>Width</b>	66±1mm
	<b>Container height</b>	95±1mm
	<b>Total Height (with terminal)</b>	100±2mm
<b>Weight±3%</b>		Approx. 2.0Kg(4.41lbs)
<b>Internal Resistance(In full charge status)</b>		≈ 32mΩ
<b>Standard Terminals</b>		F1 (standard)

Constant – Voltage Charge	
<b>Cycle application</b>	<ol style="list-style-type: none"> <li>1. Limit initial current less than 1.75A.</li> <li>2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C (77F).</li> <li>3. Hold at 14.1V to 14.4V until current drop to under 0.042A for at least 3 hours.</li> <li>4. Temperature compensation coefficient of charging voltage is -30mV/°C.</li> </ol>
<b>Standby service</b>	<ol style="list-style-type: none"> <li>1. Hold battery across constant voltage source of 13.6to 13.8 volts with current limit 1.75A 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 -18mV/°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>	

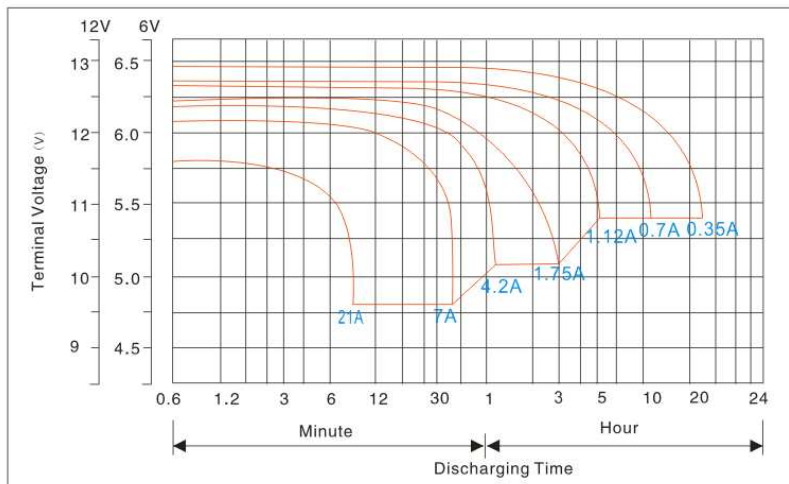
## Charge Characteristics



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



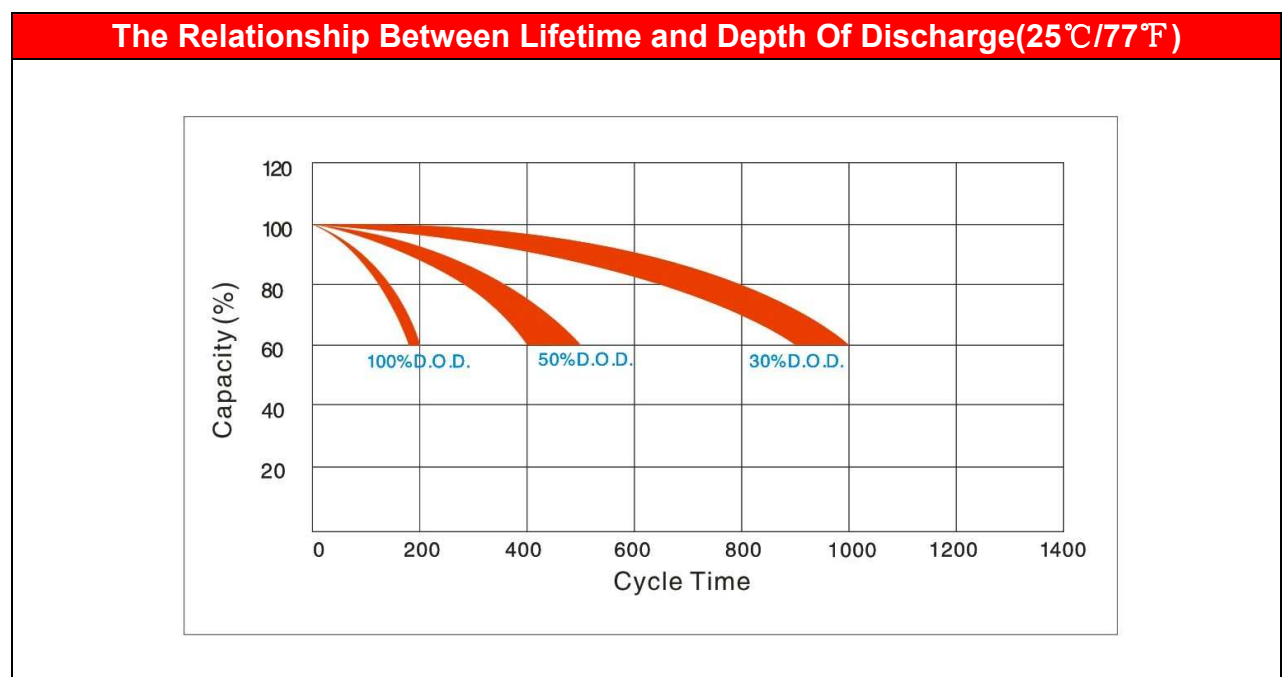
## Discharge Characteristic (25°C/77°F)



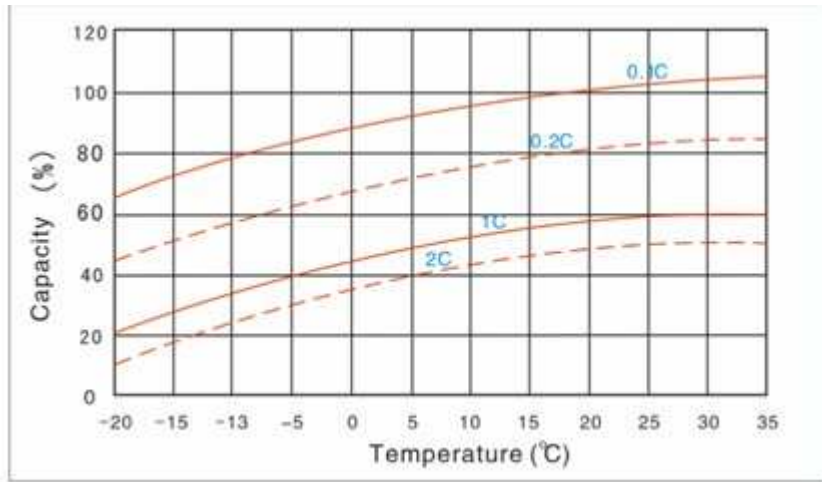
ELECTRICAL SPECIFICATIONS		
<b>Rated Capacity</b>	20 hour rate(350mA)	7.0AH
	10 hour rate(700mA)	6.8AH
	5 hour rate(1.12A)	5.6AH
	27 minute rate(7A)	3.15AH
	7 minute rate (21A)	2.44AH
<b>Capacity affected by Temperature (20Hour Rate)</b>	40°C(104°F)	103%
	25°C(77°F)	100%
	0°C(32°F)	86%

Constant Current Discharge Data Sheet ( Amperes at 25°C)										
End Voltage/cell	Minute (M)				Hour (H)					
	5	10	20	45	1	2	4	8	10	20
<b>1.70</b>	25.9	16.9	9.42	4.89	4.20	2.49	1.42	0.810	0.663	0.357
<b>1.75</b>	25.7	16.7	9.33	4.84	4.17	2.40	1.385	0.80	0.657	0.354
<b>1.80</b>	25.4	16.5	9.24	4.79	4.14	2.30	1.35	0.790	0.650	0.350

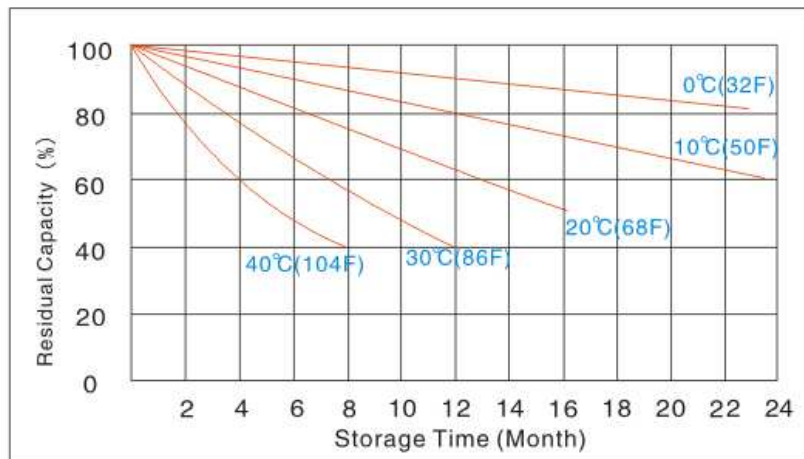
Constant Power Discharge Data Sheet ( Watt at 25°C)										
End Voltage/cell	Minute (M)				Hour (H)					
	5	10	20	45	1	2	4	8	10	20
<b>1.70</b>	311	203	113	58.7	50.4	29.9	17.0	9.72	7.89	4.25
<b>1.75</b>	308	201	112	58.1	50.1	28.8	16.6	9.60	7.82	4.21
<b>1.80</b>	305	198	111	57.5	49.7	27.6	16.2	9.48	7.74	4.17



### Capacity Curve at Different Temperature



### Storage Characteristics



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