

# MB7Ah-6V

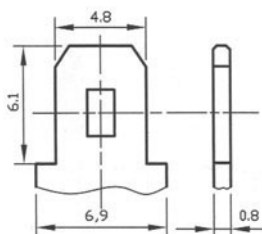
# MasterBat

VALVE REGULATED LEAD-ACID BATTERY

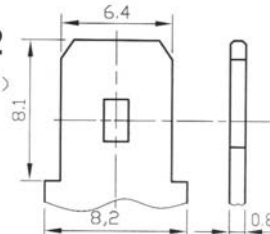
www.masterbattery.es



**F1**  
(187)



**F2**  
(250)



### Application

- Measuring equipment and instrument
- Telephone sets
- Lighting equipment
- Security systems

### 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>	6V	
<b>Nominal Capacity (20HR)</b>	7.0AH	
<b>Dimensions</b>	<b>Length</b>	151±2mm
	<b>Width</b>	35±1mm
	<b>Container height</b>	94±1mm
	<b>Total Height (with terminal)</b>	98±1mm
<b>Weight±3%</b>	Approx 1.06Kg(2.34lbs)	
<b>Internal Resistance(In full charge status)</b>	≈10.5mΩ	
<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 1.75A.</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 0.042A 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 1.75A 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 -9mV/°C</li></ol>

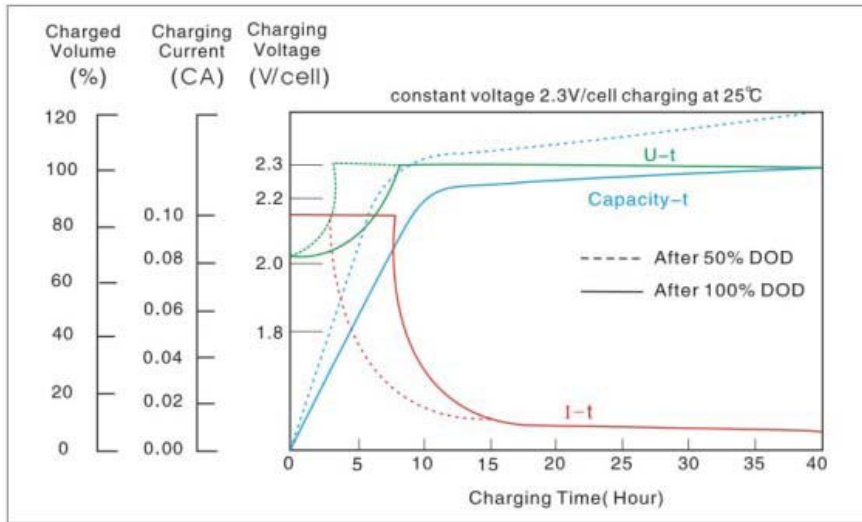


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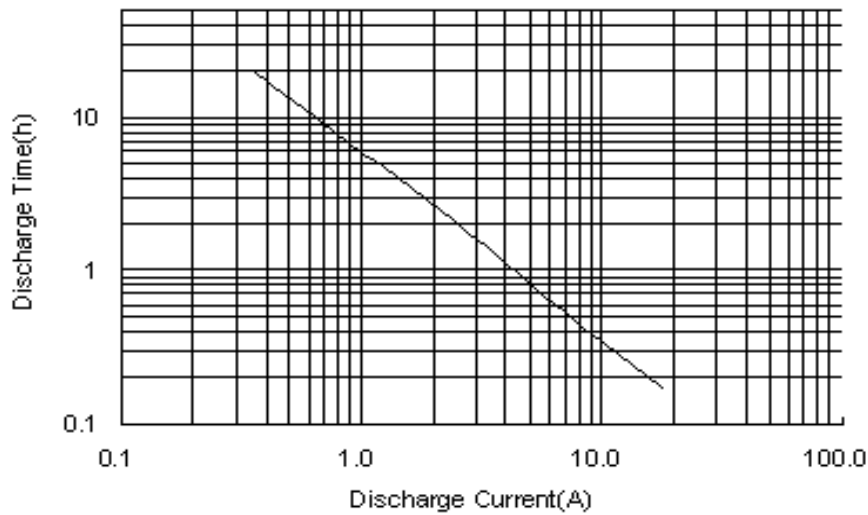
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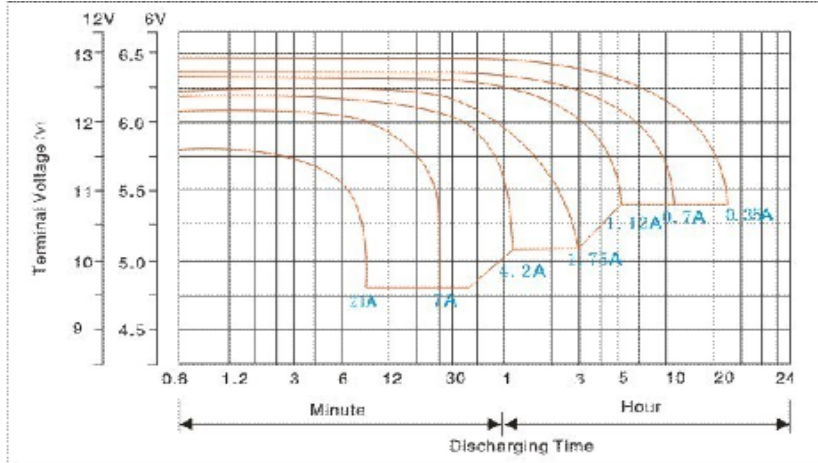
## Charge Characteristics



## 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)	7.2AH
	10 hour rate(700mA)	6.6AH
	5 hour rate(1120mA)	5.6AH
	27 minute rate(7.0A)	3.15AH
	7 minute rate(21A)	2.45AH
<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)

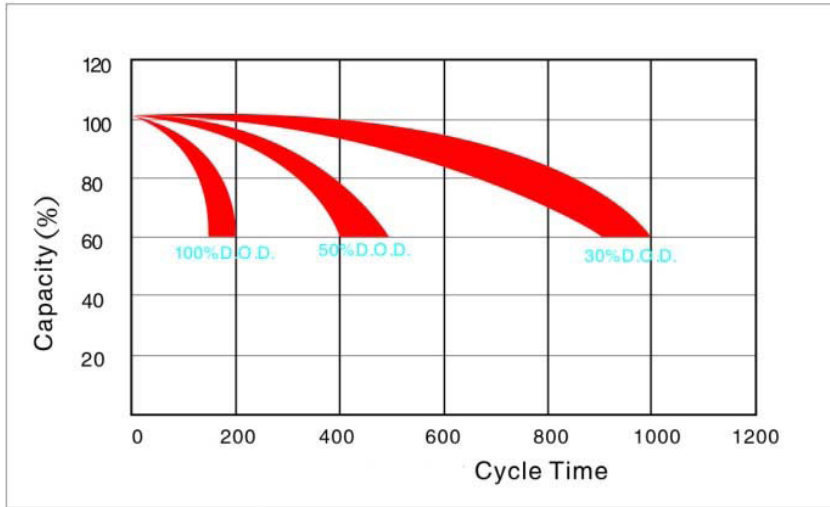
End Voltage/cell	Minute (M)				Hour (H)					
	5	10	20	45	1	2	4	8	10	20
1.70	25.9	16.9	9.42	4.89	4.20	2.49	1.42	0.810	0.663	0.357
1.75	25.7	16.7	9.33	4.84	4.17	2.40	1.385	0.800	0.657	0.354
1.80	25.4	16.5	9.24	4.79	4.14	2.30	1.35	0.790	0.650	0.350

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

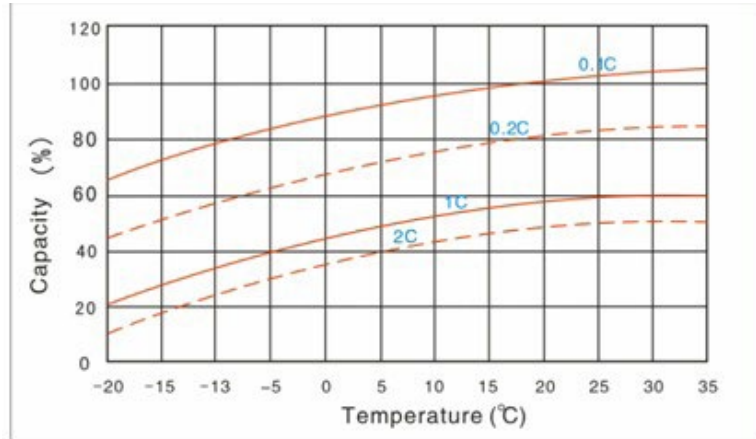
End Voltage/cell	Minute (M)				Hour (H)					
	5	10	20	45	1	2	4	8	10	20
1.70	155	101	56.5	29.3	25.2	14.9	8.52	4.86	3.94	2.12
1.75	153.5	100	56.0	29.0	25.0	14.4	8.31	4.80	3.91	2.10
1.80	152	99.0	55.4	28.7	24.8	13.8	8.10	4.74	3.87	2.08



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



## Capacity Curve at Different Temperature



## Storage Characteristics

