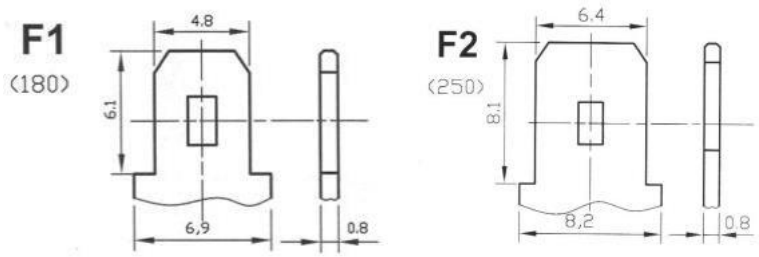
Valve Regulated Lead-Acid Battery

Model: BT-6M4.0AC(6V4.0AH)



Application

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

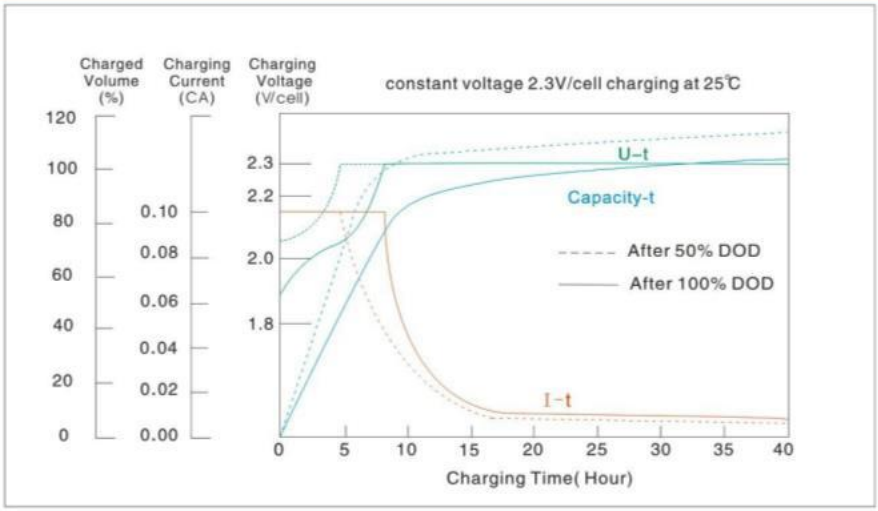
General Features

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

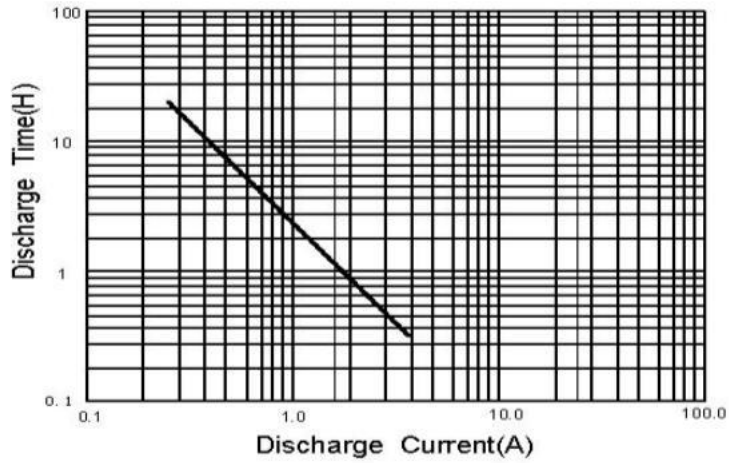
PHYSICAL SPECIFICATIONS		
Nominal Voltage		6V
Nominal Capacity (20HR)		4.0AH
Dimensions	**Length**	70±1mm
	Width	47±1mm
	Container height	100±2mm
	Total Height (with terminal)	105±2mm
Weight±3%		Approx 0.710Kg(1.56lbs)
Internal Resistance(In full charge status)		≈17.12mΩ
Standard Terminals		F1/F2(standard)

Constant – Voltage Charge	
Cycle application	1. Limit initial current less than 1.0A. 2. Charge until battery voltage (under charge) reaches 7.05V to 7.2V at 25℃ (77F). 3. Hold at 7.05V to 7.2V until current drop to under 0.024A for at least 3 hours. 4. Temperature compensation coefficient of charging voltage is -15mV/℃.
Standby service	1. Hold battery across constant voltage source of 6.8 to 6.9 volts with current limit 1.0A 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/℃
NOTE : The battery should be charged within 6 months of storage ,Otherwise , permanent loss of capacity might occur as a result of sulfation	

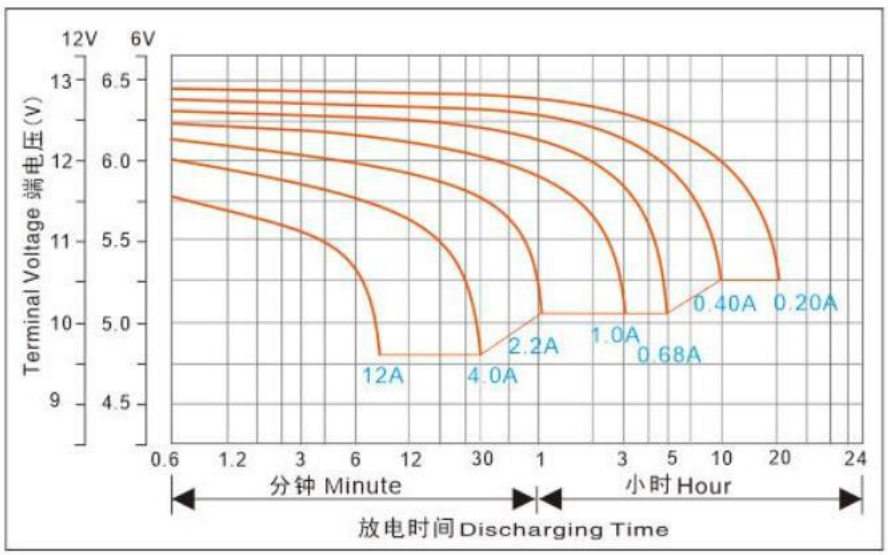
Charge Characteristics



Discharge Current & Discharge Duration Time (25℃/77℉)



Discharge Characteristic (25℃/77℉)



ELECTRICAL SPECIFICATIONS		
Rated Capacity	20 hour rate(200mA)	4.08AH
	10 hour rate(400mA)	3.84AH
	5 hour rate(680mA)	3.25AH
	27 minute rate (4.0A)	1.80AH
	7 minute rate (12A)	1.40AH
Capacity affected by Temperature (20Hour Rate)	40℃(104℉)	103%
	25℃(77℉)	100%
	0℃(32℉)	86%

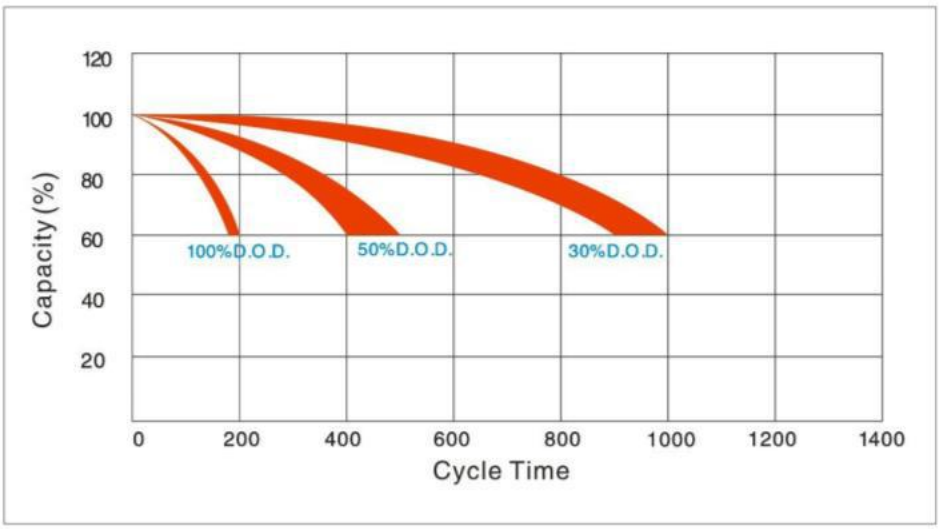
Constant Current Discharge Data Sheet (Amperes at 25℃)

End Voltage	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
5.10	14.78	9.86	7.86	4.03	3.03	2.28	1.85	1.42	1.06	0.670	0.449	0.388	0.204
5.25	14.17	9.68	7.69	3.91	2.96	2.27	1.82	1.37	1.03	0.657	0.440	0.384	0.202
5.40	13.41	9.44	7.47	3.77	2.83	2.25	1.78	1.31	1.00	0.649	0.440	0.380	0.200

Constant Power Discharge Data Sheet (Watt at 25℃)

End Voltage	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
5.10	80.7	58.10	47.05	26.57	19.37	14.74	11.31	8.51	6.07	4.00	2.82	2.28	1.23
5.25	77.3	56.20	45.65	26.03	18.93	14.51	11.14	8.39	5.93	3.96	2.80	2.25	1.21
5.40	73.2	54.10	44.17	25.27	18.45	14.27	10.97	8.27	5.83	3.91	2.77	2.21	1.20

The Relationship Between Lifetime and Depth Of Discharge(25℃/77℉)



Capacity Curve at Different Temperature