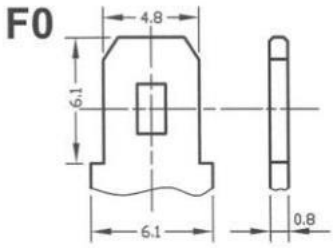
Valve Regulated Lead-Acid Battery

Model: BT-12M2.2AC (12V2.3AH)



Application

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

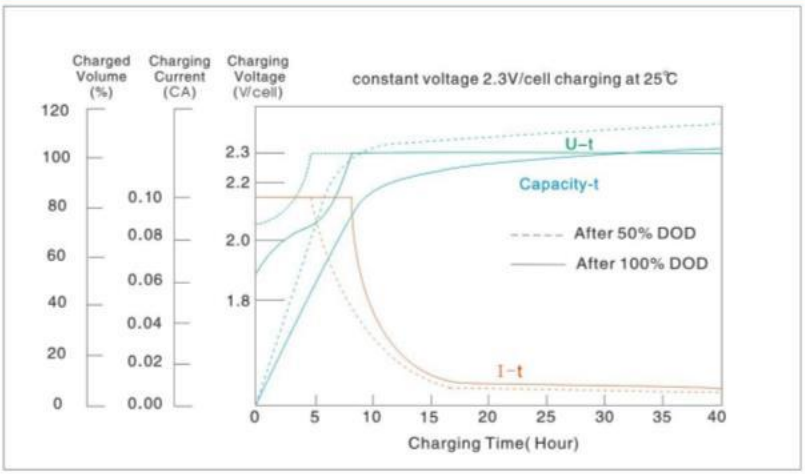
General Features

- ☆ 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

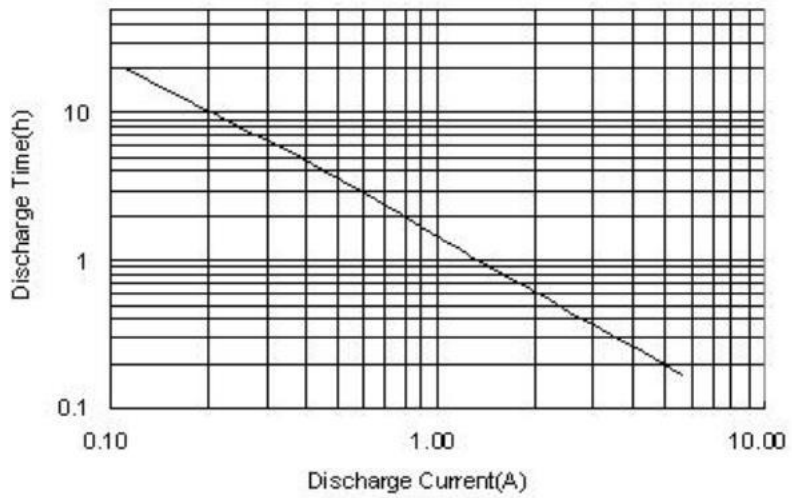
PHYSICAL SPECIFICATIONS		
Nominal Voltage		12V
Nominal Capacity (20HR)		2.3AH
Dimensions	**Length**	179±2mm
	Width	36±1mm
	Container height	61±1mm
	Total Height (with terminal)	66±1mm
Weight±3%		Approx.0.92Kg(2.02lbs)
Internal Resistance(In full charge status)		≈75.2mΩ
Standard Terminals		F0(standard)

Constant – Voltage Charge	
Cycle application	1. Limit initial current less than0.55A. 2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25℃ (77F). 3. Hold at 14.1V to 14.4V until current drop to under 0.0132A for at least 3 hours. 4. Temperature compensation coefficient of charging voltage is -30mV/℃.
Standby service	1. Hold battery across constant voltage source of 13.6to 13.8 volts with current limit 0.55A 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 -18mV/℃
NOTE : The battery should be charged within 6 months of storage ,Otherwise , permanent loss of capacity might occur as a result of sulfation	

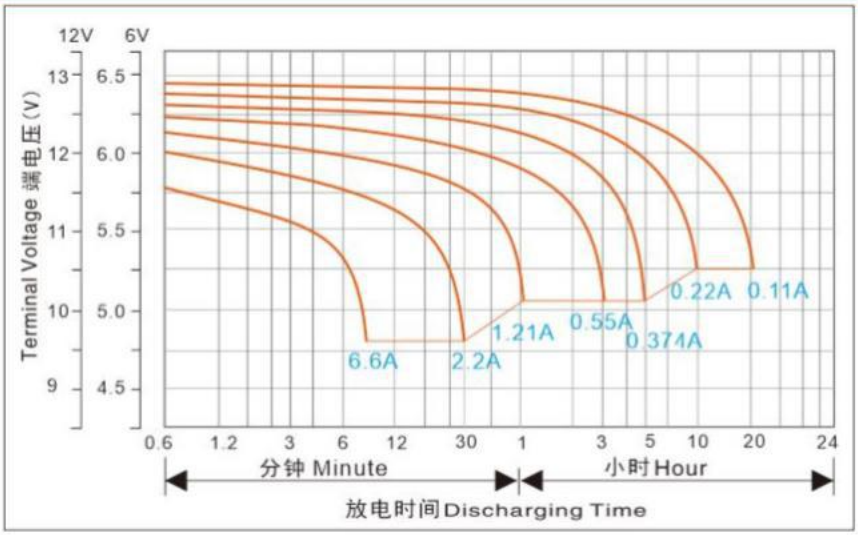
Charge Characteristics



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



Discharge Characteristic (25℃/77℉)



ELECTRICAL SPECIFICATIONS		
Rated Capacity	20 hour rate(110mA)	2.30AH
	10 hour rate(220mA)	2.00AH
	5 hour rate(374mA)	1.80AH
	27 minute rate(2.2A)	1.10AH
	7 minute rate (6.6A)	0.77AH
Capacity affected by Temperature (20Hour Rate)	40℃(104℉)	103%
	25℃(77℉)	100%
	0℃(32℉)	86%

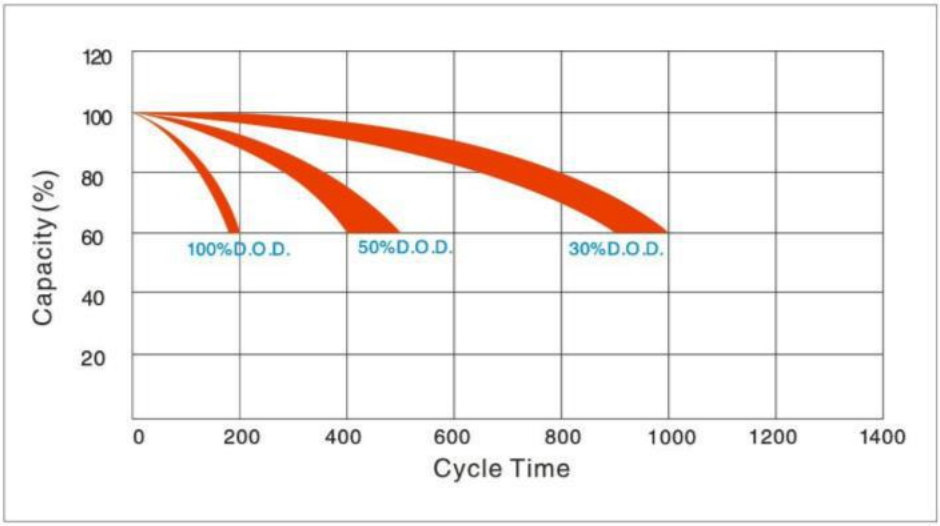
Constant Current Discharge Data Sheet (Amperes at 25℃)

End Voltage	Minute (M)					Hour (H)								
	5	10	20	30	45	1	1.5	2	3	4	5	8	10	20
10.20	8.14	5.30	2.96	2.12	1.54	1.32	1.05	0.780	0.591	0.450	0.381	0.255	0.204	0.112
10.50	8.02	5.25	2.93	2.10	1.53	1.31	1.03	0.750	0.570	0.435	0.372	0.253	0.202	0.111
10.80	7.89	5.20	2.90	2.08	1.51	1.30	1.01	0.720	0.548	0.420	0.362	0.250	0.200	0.110

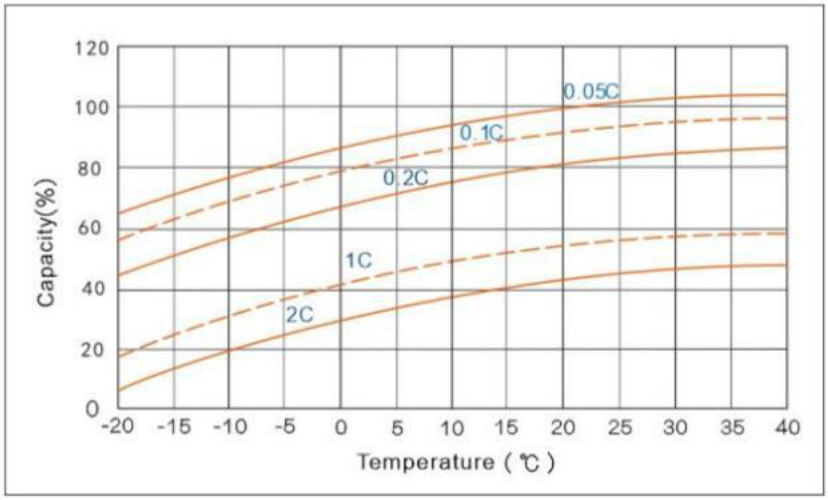
Constant Power Discharge Data Sheet (Watt at 25℃)

End Voltage	Minute (M)					Hour (H)								
	5	10	20	30	45	1	1.5	2	3	4	5	8	10	20
10.20	88.69	63.93	38.96	29.23	21.31	16.21	12.43	9.35	6.68	5.51	4.40	3.10	2.51	1.35
10.50	84.98	61.81	38.02	28.63	20.82	15.95	12.25	9.22	6.52	5.39	4.35	3.07	2.47	1.33
10.80	80.52	59.51	37.07	27.80	20.29	15.69	12.07	9.09	6.41	5.27	4.30	3.04	2.43	1.31

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



Capacity Curve at Different Temperature



Storage Characteristics