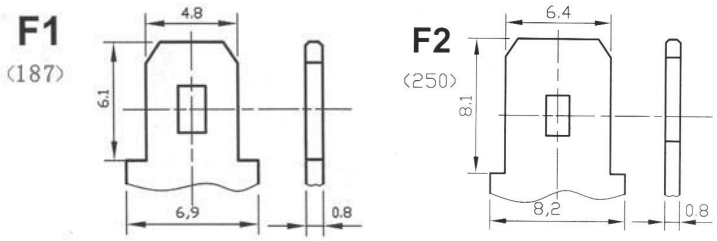
Valve Regulated Lead-Acid Battery

Model: BT-12M7.5AC(12V7.5AH)



Application

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

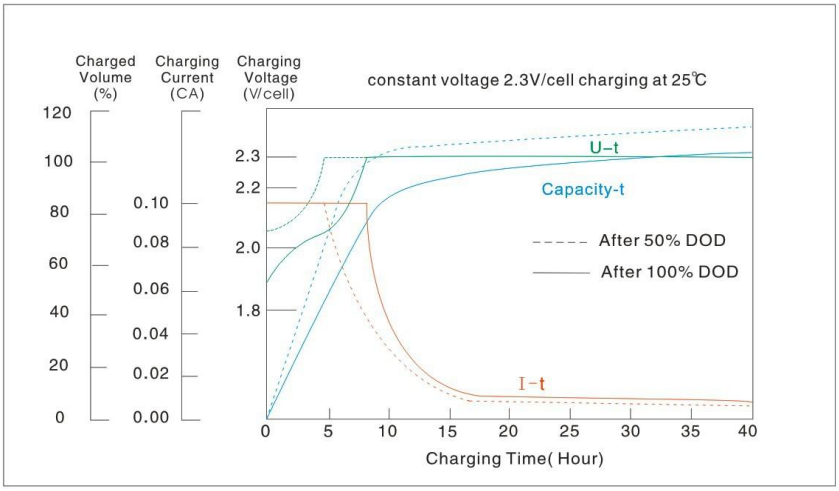
General Features

- ☆ Designed floating charging service life: 8 years (25℃)
- ☆ 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

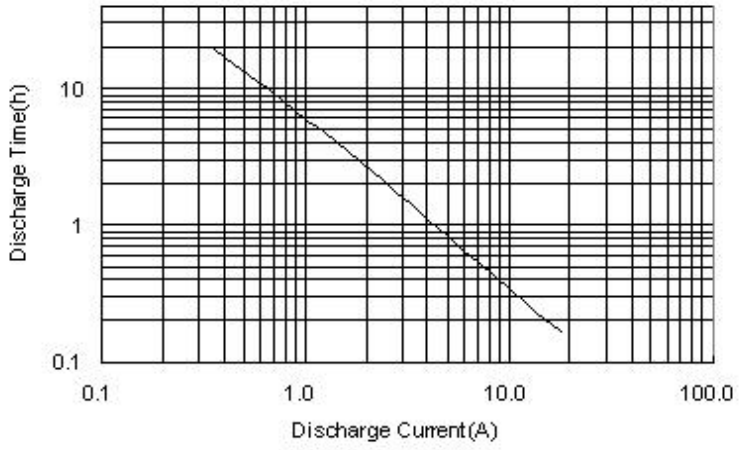
PHYSICAL SPECIFICATIONS		
Nominal Voltage		12V
Nominal Capacity (20HR)		7.5AH
Dimensions	**Length**	151±2mm
	Width	65±1mm
	Container height	95±1mm
	Total Height (with terminal)	100±2mm
Weight±3%		Approx 2.15Kg(4.353lbs)
Internal Resistance(In full charge status)		≈20.1mΩ
Standard Terminals		F1/F2(standard)

Constant – Voltage Charge	
Cycle application	1. Limit initial current less than 1.875A. 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 0.045A 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 1.875A 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	

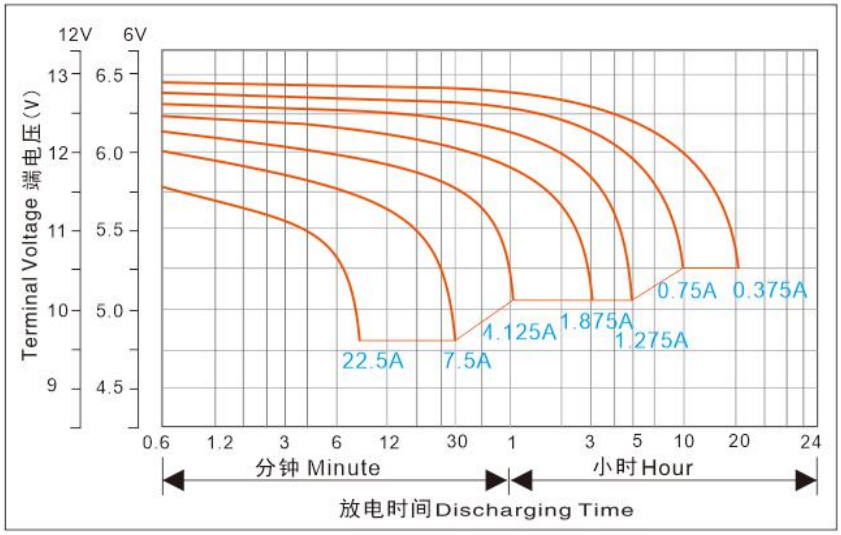
Charge Characteristics



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



Discharge Characteristic (25℃/77℉)



ELECTRICAL SPECIFICATIONS		
Rated Capacity	20 hour rate(375mA)	7.51AH
	10 hour rate(750mA)	7.15AH
	5 hour rate(1.275A)	6.10AH
	27 minute rate(7.5A)	3.75AH
	7 minute rate (22.5A)	2.63AH
Capacity affected by Temperature (20Hour Rate)	40℃(104℉)	103%
	25℃(77℉)	100%
	0℃(32℉)	86%

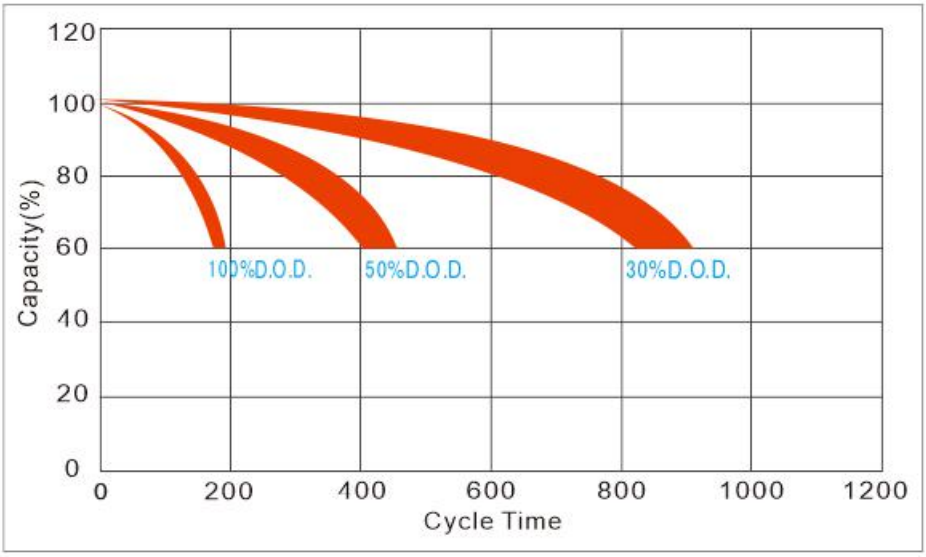
Constant Current Discharge Data Sheet (Amperes at 25℃)

End Voltage	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
10.20	27.7	18.1	14.2	7.23	5.24	4.50	3.59	2.67	2.01	1.29	0.868	0.710	0.382
10.50	27.5	17.9	14.0	7.17	5.19	4.47	3.52	2.57	1.95	1.27	0.860	0.700	0.379
10.80	27.2	17.7	13.9	7.09	5.13	4.43	3.45	2.46	1.88	1.24	0.846	0.696	0.375

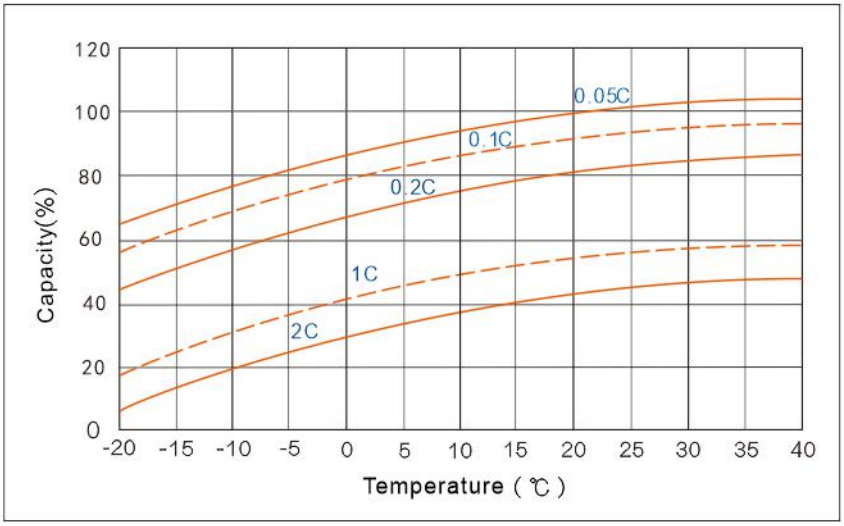
Constant Power Discharge Data Sheet (Watt at 25℃)

End Voltage	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
10.20	302	218	176.4	99.64	72.64	55.26	42.39	31.89	22.76	15.00	10.56	8.55	4.60
10.50	290	211	171.2	97.59	70.97	54.39	41.76	31.44	22.24	14.83	10.48	8.42	4.54
10.80	275	203	165.6	94.76	69.17	53.49	41.14	30.99	21.86	14.66	10.37	8.28	4.47

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



Capacity Curve at Different Temperature



Storage Characteristics