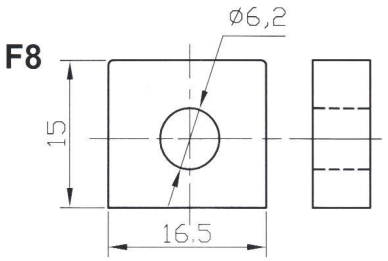
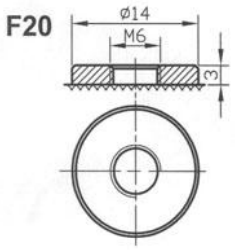
Valve Regulated Lead-Acid Battery

Model: BT-12M33AC(12V33AH)





Application

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

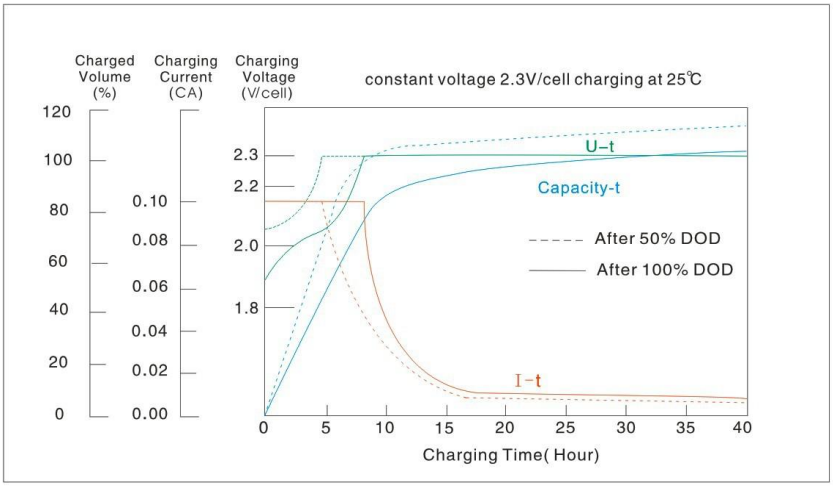
General Features

- ☆ 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

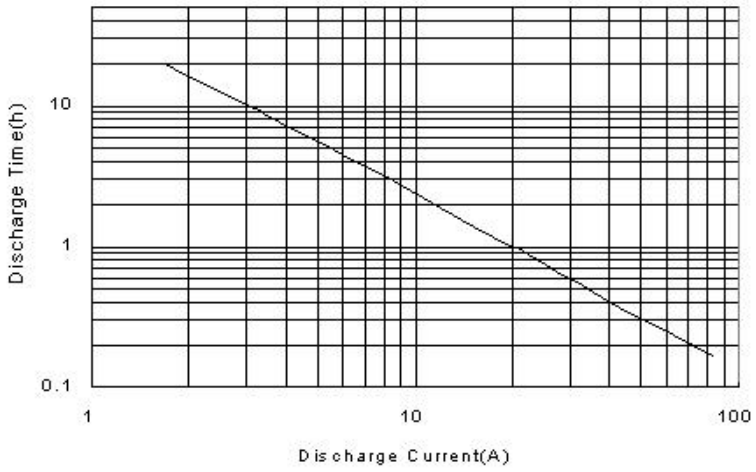
PHYSICAL SPECIFICATIONS		
Nominal Voltage		12V
Nominal Capacity (20HR)		33AH
Dimensions	**Length**	194±2mm
	Width	129±2mm
	Container height	156±2mm
	Total Height (with terminal)	179±2mm
Weight±3%		Approx 9.80Kg(21.61lbs)
Internal Resistance(In full charge status)		≈7.58mΩ
Standard Terminals		F8/F20(standard)

Constant – Voltage Charge	
Cycle application	1. Limit initial current less than 8.25A. 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 0.198A 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 8.25A 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	

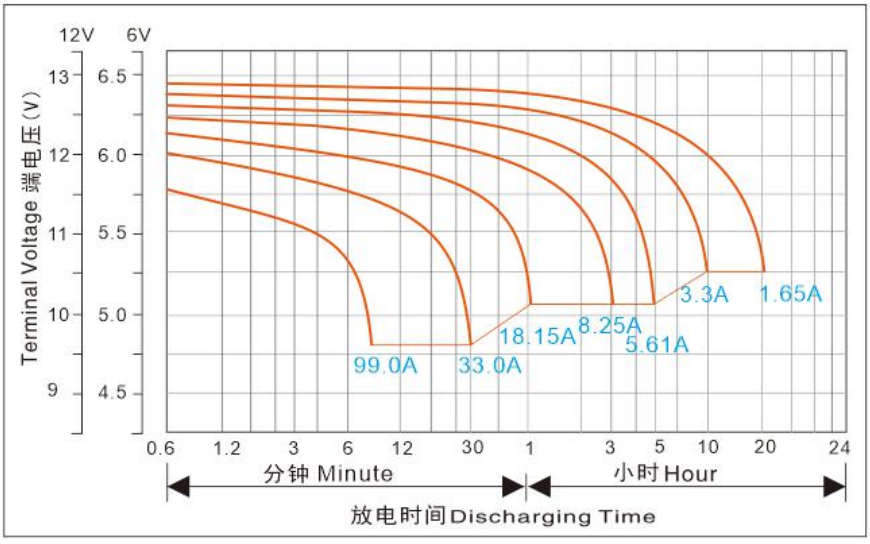
Charge Characteristics



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



Discharge Characteristic (25℃/77℉)

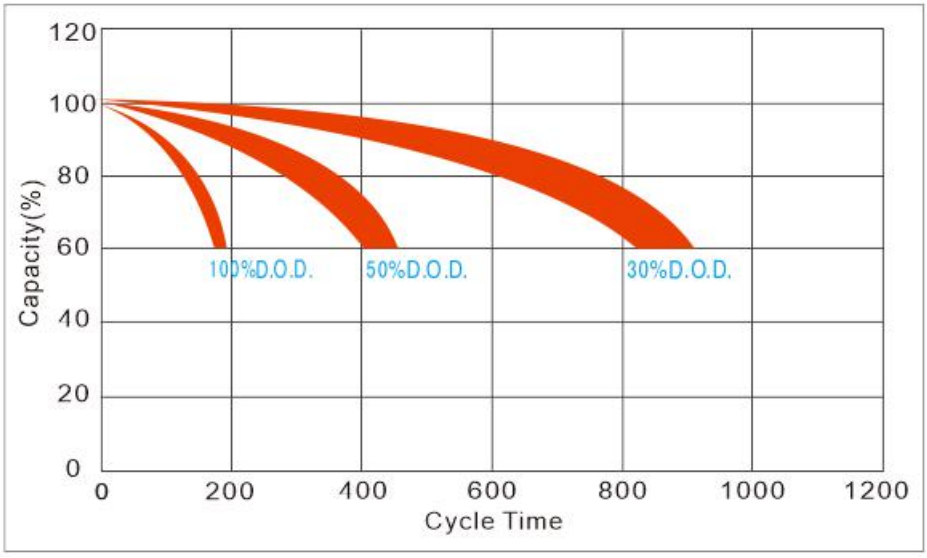


ELECTRICAL SPECIFICATIONS		
Rated Capacity	20 hour rate(1.65A)	33.03AH
	10 hour rate(3.3A)	31.50AH
	5 hour rate(5.61A)	27.55AH
	27minute rate(33A)	15.40AH
	7 minute rate (99A)	11.55AH
Capacity affected by Temperature (20Hour Rate)	40℃(104℉)	103%
	25℃(77℉)	100%
	0℃(32℉)	86%

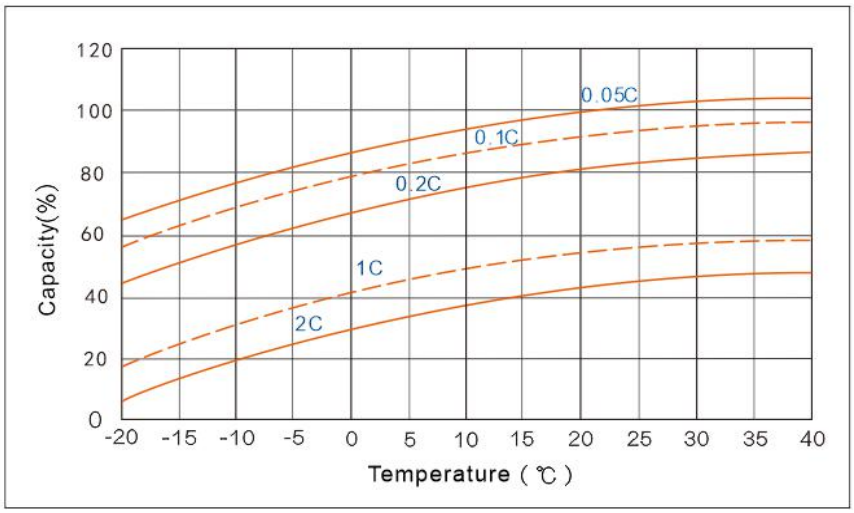
Constant Current Discharge Data Sheet (Amperes at 25℃)													
End Voltage	**Minute (M)**					**Hour (H)**							
	5	**10**	**15**	**30**	**45**	**1**	**1.5**	**2**	**3**	**5**	**8**	**10**	**20**
10.20	122.5	80.0	62.7	32.0	23.2	19.9	15.75	11.60	8.81	5.69	3.81	3.35	1.740
10.50	121.5	79.2	62.0	31.7	23.1	19.8	15.50	11.20	8.54	5.58	3.77	3.32	1.720
10.80	120.4	78.3	61.4	31.5	23.0	19.7	15.25	10.80	8.26	5.47	3.73	3.29	1.690

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	1325	955	773	437	318	242	185.7	139.7	99.71	65.72	46.29	37.46	20.17
10.50	1269	923	750	428	311	238	183.0	137.7	97.45	64.97	45.91	36.90	19.88
10.80	1203	889	726	415	303	234	180.3	135.8	95.76	64.22	45.44	36.28	19.60

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



Capacity Curve at Different Temperature



Storage Characteristics