

VRLA AGM Battery

BT-12M28AC(L)[12V28Ah]



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 0°C~40°C
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

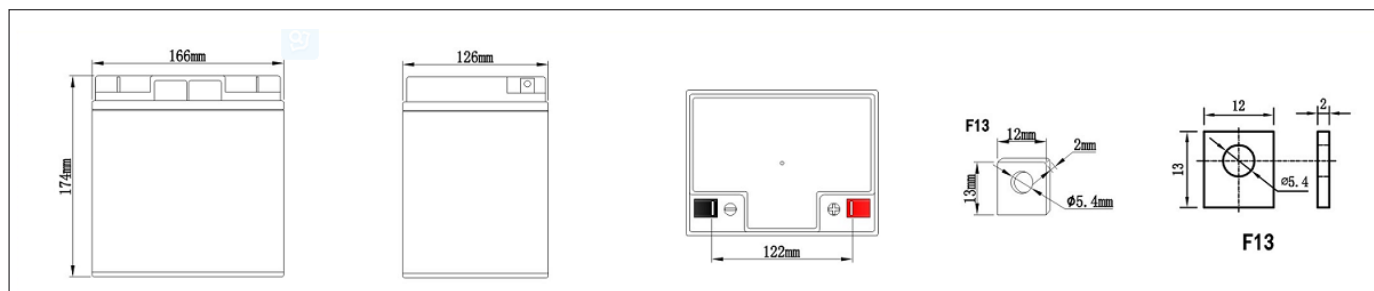
Application

- DC power supply
- Medical equipments
- UPS/EPS power supply
- Emergency lighting systems
- Alarm and security systems

Physical Specifications

Nominal Voltage	Nominal Capacity (20HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	28AH	166±2mm	126±2mm	174±2mm	174±2mm	Approx 8.00kg (17.64lbs)	≈12 mΩ	F13 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hs rate (1.41A at 10.5V)	28.2AH
10 hrs rate (2.8A at 10.8V)	26.2AH
5 hrs rate (4.76A at 10.5V)	23.8AH
3 hr rate (7.18A at 10.5V)	21.5AH
1hr rate (16.7A at 10.2V)	10.5AH
Capacity affected by Temperature	
40°C(104°F)	103%
25°C(77°F)	100%
0°C(32°F)	86%

Cycle Application	
1. Limit initial current less than 7.0A.	
2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).	
3. Hold at 14.1V to 14.4V until current drop to under 0.144A for at least 3 hours.	
4. Temperature compensation coefficient of charging voltage is -30mV/°C.	
Standby Service	
1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 7.0A 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 -18mV/°C.	

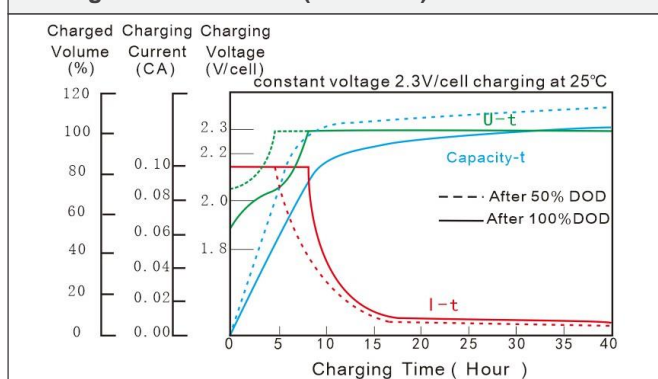
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

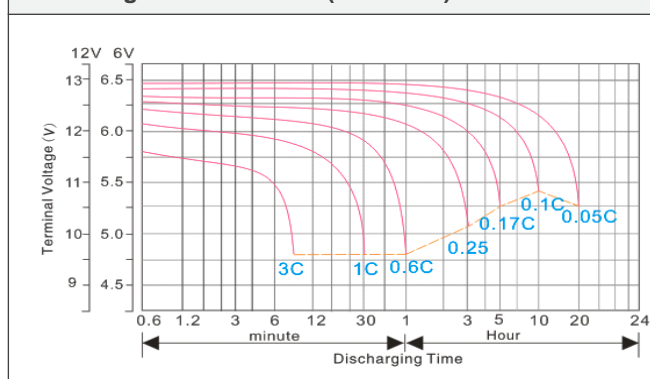
End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
1.60V	73.5	57.7	29.4	20.7	17.5	13.9	10.3	7.79	4.98	3.30	2.74	1.46
1.65V	70.0	54.9	28.0	20.0	17.1	13.5	10.1	7.60	4.89	3.23	2.72	1.44
1.70V	66.7	52.3	26.7	19.3	16.7	13.2	9.83	7.41	4.81	3.17	2.69	1.43
1.75V	66.2	51.8	26.4	19.1	16.5	13.0	9.46	7.18	4.76	3.16	2.67	1.41
1.80V	65.4	51.3	26.1	18.8	16.4	12.7	9.09	6.94	4.61	3.12	2.62	1.38
Constant Power Discharge Data Sheet (@25°C) Unit: W												
1.60V	147	119	67.3	47.6	35.5	27.3	20.5	14.6	9.6	6.7	5.3	2.86
1.65V	140	113	64	46	34.6	26.6	20	14.2	9.4	6.6	5.28	2.85
1.70V	133.5	108	61	44.5	33.8	26	19.5	13.9	9.1	6.48	5.23	2.81
1.75V	129	104.8	59.8	43.3	33.3	25.5	19.1	13.6	9.0	6.4	5.15	2.78
1.80V	124	101	58	42.3	32.6	25.1	19	13.3	8.9	6.3	5.06	2.73

Performance Characteristics

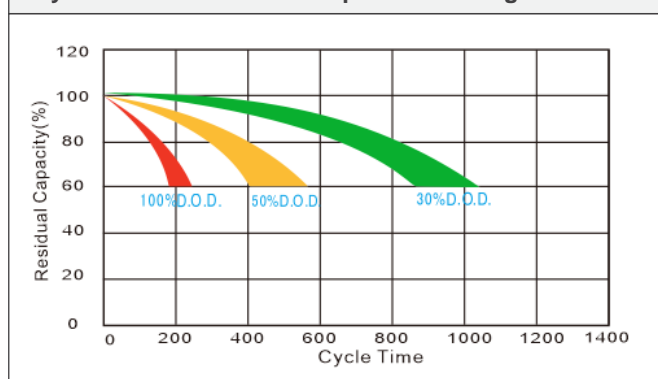
Charge Characteristics (25°C/77°F)



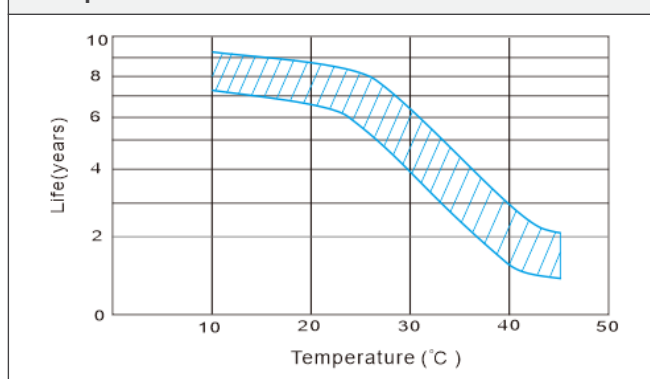
Discharge Characteristic (25°C/77°F)



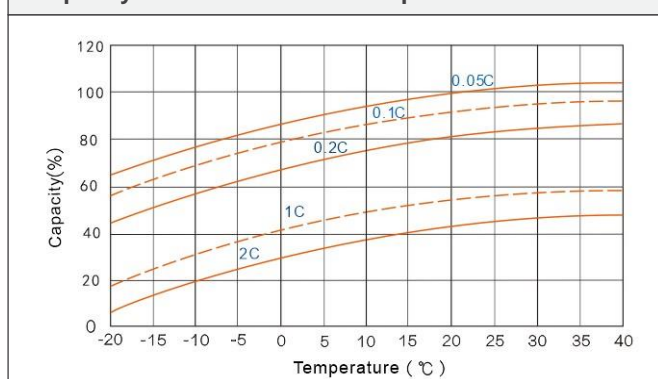
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

