



General Features

- ◆ Sealed and maintenance free operation.
- ◆ Non-Spillable construction design.
- ◆ ABS containers and covers (UL94HB, UL94V-0) optional.
- ◆ Safety valve installation for explosion proof.
- ◆ High quality and high reliability.
- ◆ Exceptional deep discharge recovery performance.
- ◆ Low self discharge characteristic.
- ◆ Flexibility design for multiple install positions.



Battery Type	Valve-Regulated, Absorbed Glass Mat (AGM) Technology			
Nominal Voltage	12V			
Capacity (25 °C)	20HR (5.5A, 1.8V/cell)	10HR (10.4A, 1.8V/cell)	5HR (18.9A, 1.75V/cell)	1HR (71.0A, 1.6V/cell)
	110.0AH	104.0AH	94.5AH	71.0AH
Dimensions	Length	Width	Height	Total Height
	508mm (20.0 inches)	110mm (4.33 inches)	238.5mm (9.39 inches)	238.5mm (9.39 inches)
Approx Weight	Approx 35.0 Kg (77.2 lbs)			
Internal Resistance	Full Charged at 25 °C : Approx 4.3mΩ			
Self Discharge	3% of capacity declined per month at 25 °C			
Capacity affected by Temperature (10HR)	40 °C	25 °C	0 °C	-15 °C
	103%	100%	86%	65%
Charging Voltage (V)	Cycle use		Float use	
	14.4V~15.0V at 25 °C. Temp. Coefficient -30mV/ °C		13.5V~13.8V at 25 °C. Temp. Coefficient -20mV/ °C	
Current	Max. Discharge Current (5s)		Initial Charging Current	
	1000A		Less than 30A	
Operating Temp. Range	Discharge		Charging	
	-15~50 °C (5~122 °F)		0~40 °C (32~104 °F)	
	Storage			
	-15~40 °C (5~104 °F)			

Constant Current Discharge (Amperes) at 25 °C (77 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	173.9	145.0	124.4	97.6	75.7	61.5	36.7	26.4	21.2	17.6	15.3	11.9	9.92	5.26
1.80V/cell	197.2	161.6	137.7	106.8	81.4	65.7	38.7	28.1	22.3	18.5	16.1	12.5	10.4	5.50
1.75V/cell	216.4	174.9	146.9	112.2	84.5	68.0	39.4	28.6	22.9	18.9	16.3	12.7	10.5	5.58
1.70V/cell	231.5	184.2	152.9	115.5	86.5	68.9	40.0	28.8	23.0	19.0	16.5	12.8	10.6	5.62
1.67V/cell	239.5	188.8	156.0	117.0	86.8	69.2	40.1	28.9	23.1	19.1	16.6	12.9	10.7	5.65
1.60V/cell	251.8	196.0	163.0	119.9	89.1	71.0	40.8	29.3	23.4	19.3	16.7	13.0	10.8	5.68

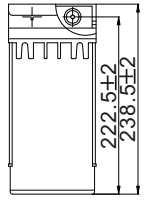
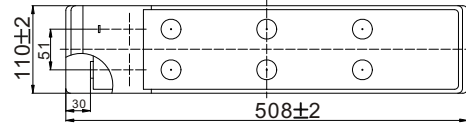
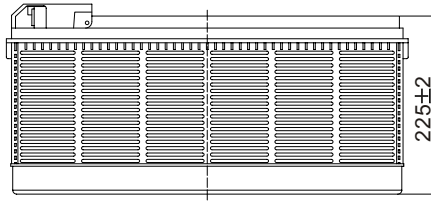
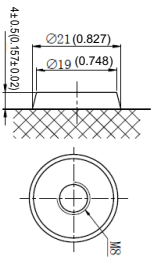
Constant Power Discharge (Watts) at 25 °C (77 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	324.8	273.4	237.0	187.9	147.0	119.9	72.0	52.0	41.9	34.8	30.3	23.7	19.8	10.52
1.80V/cell	363.9	300.7	258.5	202.5	156.9	127.3	75.4	55.0	43.8	36.4	31.7	24.9	20.7	10.98
1.75V/cell	393.0	321.4	273.3	211.1	161.4	131.2	76.6	55.7	44.8	37.1	32.1	25.2	20.9	11.14
1.70V/cell	411.0	333.9	282.2	216.1	162.5	132.5	77.5	56.1	45.0	37.2	32.5	25.4	21.0	11.21
1.67V/cell	423.6	340.8	286.8	218.4	164.5	132.8	77.6	56.2	45.1	37.3	32.6	25.5	21.2	11.25
1.60V/cell	433.0	346.9	295.4	221.0	167.0	134.9	78.2	56.5	45.4	37.6	32.7	25.6	21.4	11.30

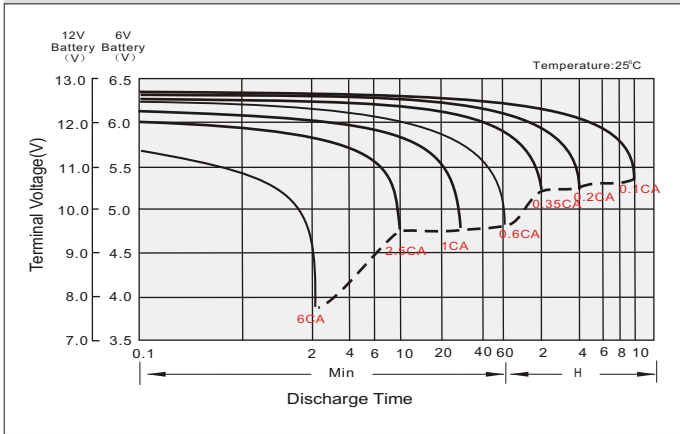
Dimensions

Terminal

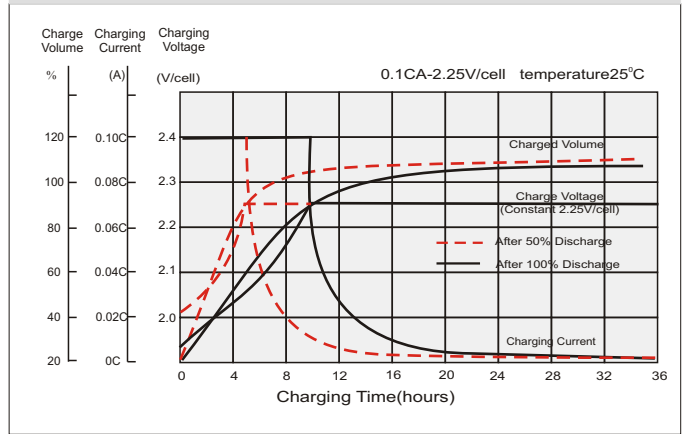
Unit: mm [inches]



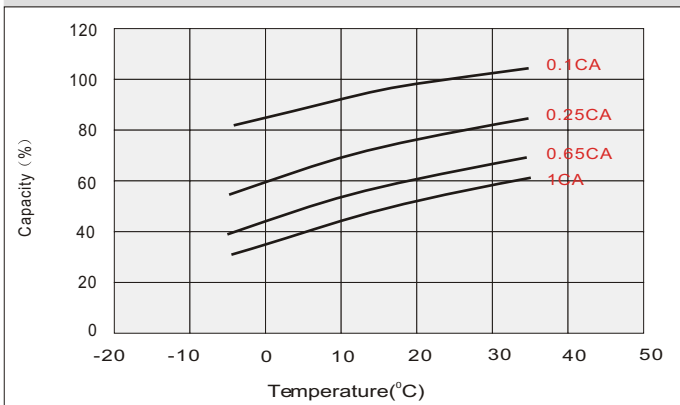
Discharge characteristics



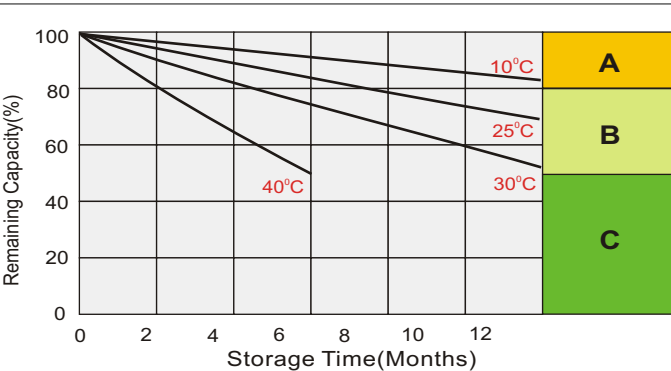
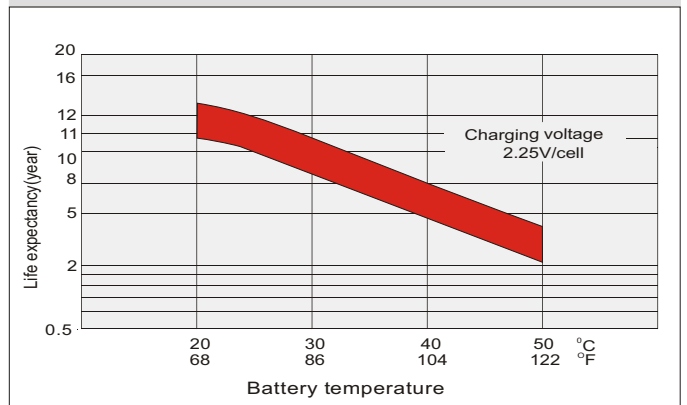
Cycle use charging characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
 2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.