



### General Features

- ◆ Using oxygen recombination technology: maintenance-free
- ◆ Special grid alloy: less gassing, less self-discharging
- ◆ For longer cycle life: special paste formula, over dimensioned negative plate, optimised manufacturing process, additives for deep discharge
- ◆ Thermal management system (optional)
- ◆ Special anti-vibration design (optional)
- ◆ High quality AGM separator: extend cycle life and prevent micro short circuit
- ◆ ABS material: increase the strength of battery container.  
(Flame-retardant ABS is optional)



Battery Type	Valve-Regulated, Absorbed Glass Mat (AGM) Technology			
Nominal Voltage	12V			
Capacity (20°C)	20HR (3.86A, 1.8V/cell)	10HR (7.28A, 1.8V/cell)	5HR (13.1A, 1.75V/cell)	1HR (51.4A, 1.6V/cell)
	77.1AH	72.8AH	65.6AH	51.4AH
Dimensions	Length	Length	Length	Length
	259mm (10.2 inches)	168mm (6.61 inches)	208mm (8.19 inches)	214mm (8.43 inches)
Approx Weight	Approx 21.0kg (46.3lbs)			
Internal Resistance	Full Charged at 20 °C: Approx 6.6 mΩ			
Self Discharge	3% of capacity declined per month at 20°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 20°C. Temp. Coefficient -30mV/°C		13.5V~13.8V at 20°C. Temp. Coefficient -20mV/°C	
Current	Max. Discharge Current (5s)		Initial Charging Current	
	900A		Less than 22.5A	
Operating Temp. Range	Discharge	Charging		Storage
	-15~50 °C (5~122°F)	0~40 °C (32~104°F)		-15~40 °C (5~104°F)

### Constant Current Discharge (Amperes) at 20 °C (68°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	116.3	102.0	90.2	72.1	56.1	45.3	26.6	19.3	15.2	12.6	11.0	8.69	7.18	3.81
1.80V/cell	128.3	110.0	95.1	75.2	58.4	46.7	27.3	19.6	15.5	12.9	11.2	8.83	7.28	3.86
1.75V/cell	135.1	114.0	98.3	77.5	60.0	47.7	27.8	20.1	15.9	13.1	11.4	8.94	7.35	3.89
1.70V/cell	145.4	119.7	102.4	79.8	61.6	49.2	28.4	20.6	16.2	13.4	11.5	9.05	7.42	3.92
1.65V/cell	154.3	125.4	106.0	82.1	63.2	50.4	29.1	21.0	16.5	13.6	11.7	9.16	7.50	3.95
1.60V/cell	163.3	131.1	109.7	84.8	64.8	51.4	29.6	21.4	16.7	13.8	11.9	9.27	7.55	3.98

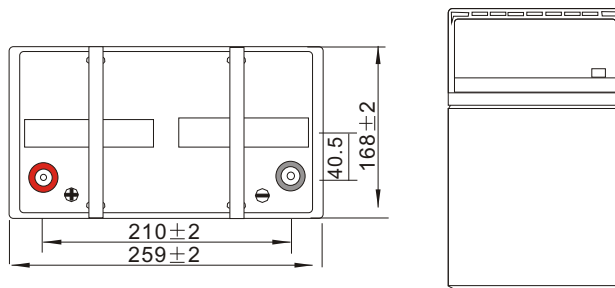
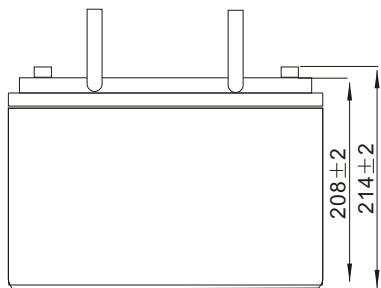
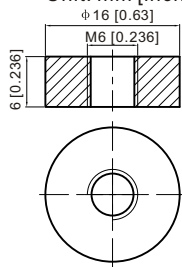
### Constant Power Discharge (Watts) at 20 °C (68°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	217.9	192.6	171.4	138.2	108.4	88.0	51.9	37.8	30.1	25.0	21.9	17.4	14.5	7.72
1.80V/cell	236.6	205.3	179.3	143.3	112.2	90.3	53.0	38.3	30.4	25.4	22.2	17.6	14.6	7.79
1.75V/cell	246.1	210.3	183.7	146.5	114.6	91.7	53.8	39.0	31.1	25.8	22.4	17.8	14.7	7.83
1.70V/cell	261.0	218.3	189.7	149.8	116.9	94.2	54.8	39.8	31.5	26.1	22.7	17.9	14.8	7.86
1.65V/cell	274.1	227.0	195.3	153.2	119.4	96.2	56.0	40.7	32.0	26.5	23.1	18.1	14.9	7.90
1.60V/cell	285.0	234.5	199.9	157.3	121.8	97.8	56.7	41.2	32.4	26.9	23.3	18.3	15.0	7.92

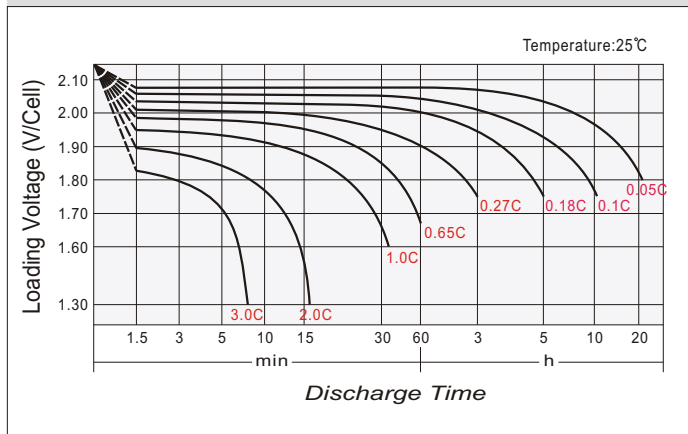
# Dimensions

## T6 Terminal

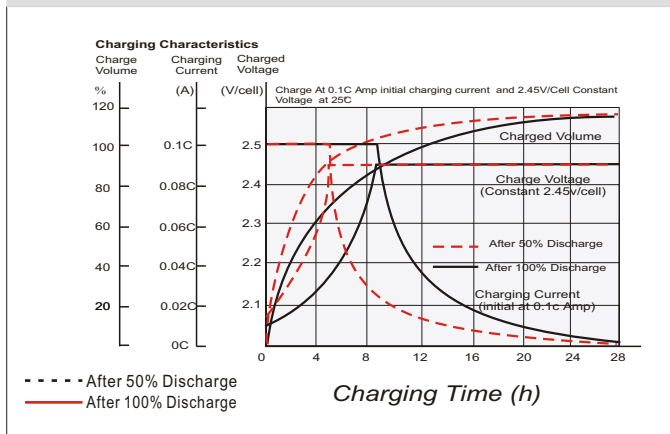
Unit: mm [inches]



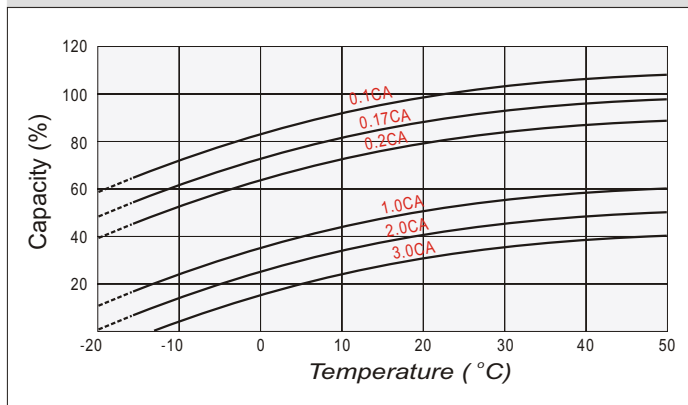
## Discharge characteristics



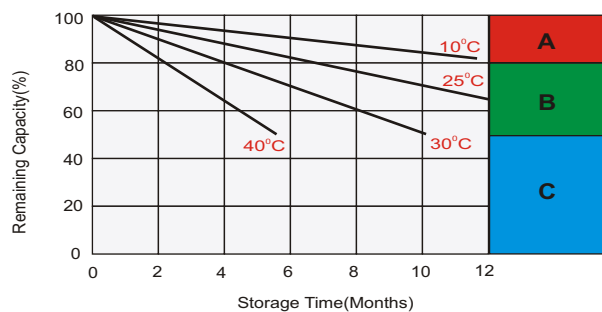
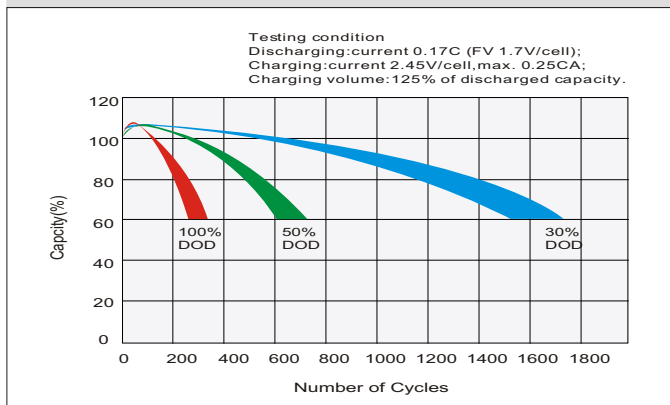
## Cycle use charging characteristics



## Temperature effects in relation to battery capacity



## Cycle Life in Relation to Depth of Discharge



## 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 voltage 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
  3. Charged for 8~10 hours 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.