

### 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(6.11A, 1.8V/cell)	10HR(11.6A, 1.8V/cell)	5HR(20.4A, 1.75V/cell)	1HR(80.3A, 1.6V/cell)
	122.1AH	116.4AH	102.2AH	80.3AH
Dimensions	Length	Length	Length	Length
	410mm(16.1inches)	177mm(6.97inches)	225mm(8.86inches)	225mm(8.86inches)
Approx Weight	Approx 37.6 kg (82.9lbs)			
Internal Resistance	Full Charged at 20 °C: Approx 4.0 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	
	1300A		Less than 36A	
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 20 °C (68 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	186.7	156.0	137.8	110.4	84.5	71.0	41.8	30.0	23.5	19.6	17.1	13.7	11.4	6.01
1.80V/cell	205.9	169.6	145.7	115.6	87.9	73.0	42.6	30.5	24.0	19.9	17.5	14.0	11.6	6.11
1.75V/cell	223.0	177.8	153.2	120.8	90.7	74.6	43.6	31.3	24.7	20.4	17.9	14.2	11.8	6.20
1.70V/cell	242.1	189.7	159.7	124.9	93.0	76.5	44.6	31.9	25.1	20.8	18.2	14.4	11.9	6.29
1.65V/cell	257.2	200.6	165.9	129.0	95.8	78.3	45.4	32.4	25.6	21.3	18.5	14.6	12.0	6.36
1.60V/cell	270.9	208.8	172.0	132.9	99.1	80.3	46.2	33.2	26.0	21.7	18.8	14.8	12.2	6.42

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

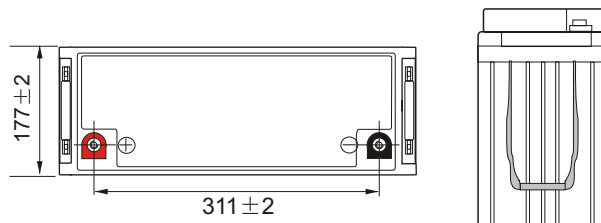
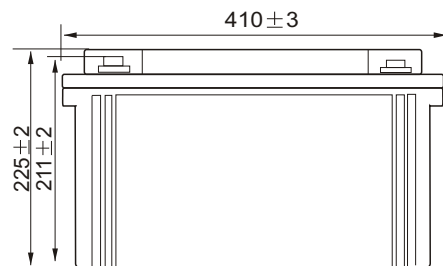
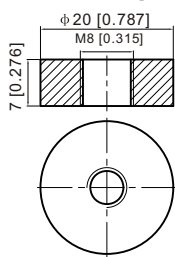
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	349.9	294.4	261.9	211.4	163.1	137.9	81.7	58.8	46.3	38.8	34.1	27.5	23.0	12.2
1.80V/cell	379.8	316.6	274.7	220.1	168.7	141.0	82.9	59.6	47.1	39.4	34.6	27.9	23.4	12.3
1.75V/cell	406.2	328.1	286.3	228.4	173.1	143.4	84.5	60.9	48.3	40.2	35.4	28.3	23.6	12.5
1.70V/cell	434.8	346.0	295.9	234.5	176.7	146.4	86.0	61.7	48.9	40.8	35.8	28.5	23.8	12.6
1.65V/cell	456.8	363.3	305.5	240.9	181.0	149.4	87.3	62.7	49.7	41.6	36.4	28.8	23.9	12.7
1.60V/cell	472.8	373.5	313.6	246.5	186.3	152.6	88.4	63.9	50.4	42.2	36.9	29.1	24.1	12.8



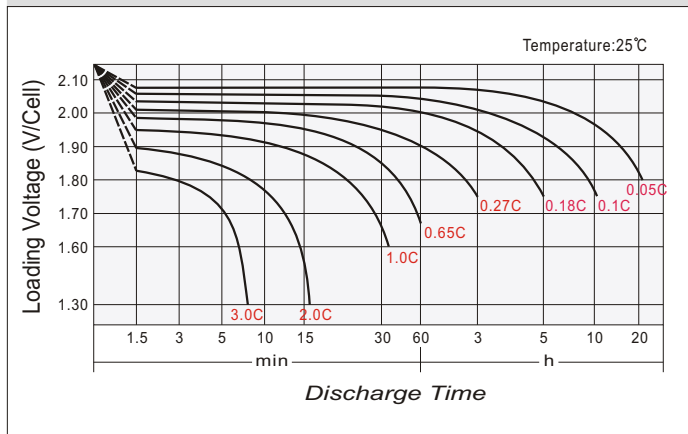
# Dimensions

## T11 Terminal

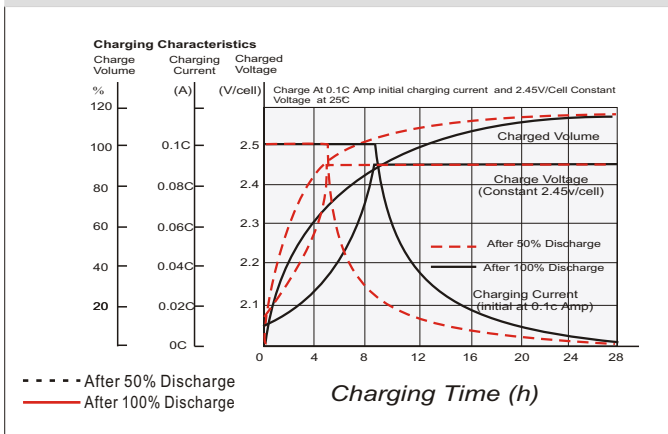
Unit: mm [inches]



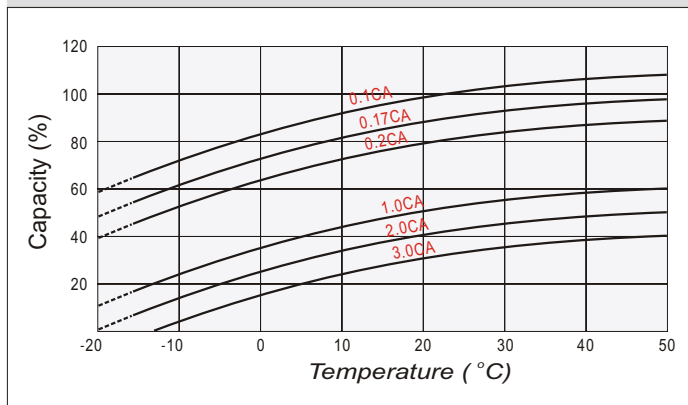
## Discharge characteristics



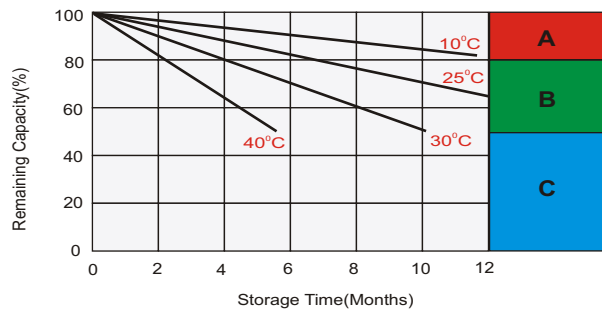
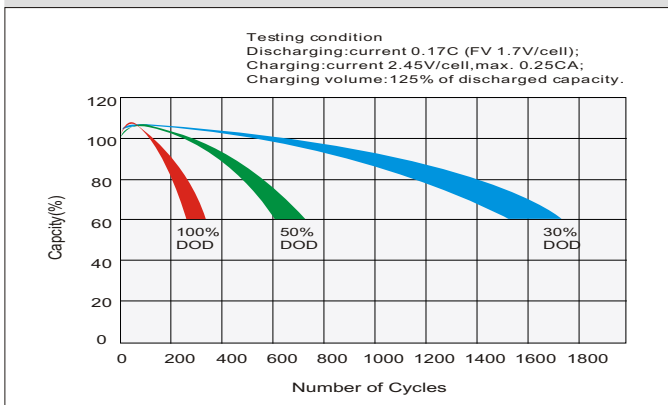
## Cycle use charging characteristics



## 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 20hours at limited current 0.25CA and constant voltage 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.