

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 (5.14A, 1.8V/cell)	10HR (9.71A, 1.8V/cell)	5HR (17.5A, 1.75V/cell)	1HR (68.6A, 1.6V/cell)
	102.9AH	97.1AH	87.5AH	68.6AH
Dimensions	Length	Length	Length	Length
	330mm (13.0 inches)	173mm (6.81 inches)	212mm (8.35 inches)	200mm (7.87 inches)
Approx Weight	Approx 30.0kg (66.2lbs)			
Internal Resistance	Full Charged at 20 °C: Approx 4.9 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	
	1200A		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 20 °C (68 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	155.0	136.0	120.3	96.1	74.9	60.4	35.4	25.7	20.3	16.8	14.7	11.6	9.57	5.08
1.80V/cell	170.4	146.3	127.7	101.7	77.9	62.3	36.3	26.1	20.6	17.1	14.9	11.8	9.71	5.14
1.75V/cell	179.6	152.0	131.7	104.3	80.1	63.6	37.1	26.8	21.2	17.5	15.1	11.9	9.80	5.19
1.70V/cell	192.7	159.2	136.8	108.1	82.1	65.6	37.9	27.4	21.6	17.8	15.4	12.1	9.89	5.23
1.65V/cell	205.8	167.2	141.9	111.9	84.2	67.3	38.8	28.1	22.0	18.1	15.6	12.2	10.0	5.27
1.60V/cell	221.2	176.7	147.6	115.0	86.4	68.6	39.5	28.5	22.3	18.4	15.9	12.4	10.1	5.30

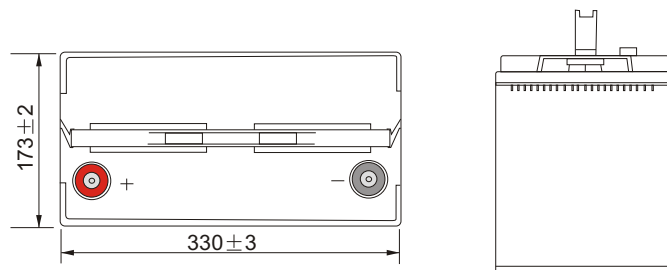
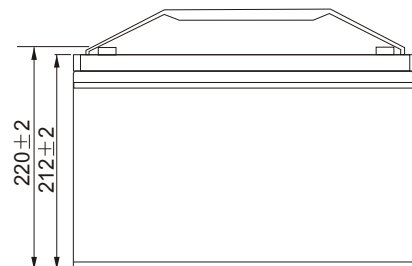
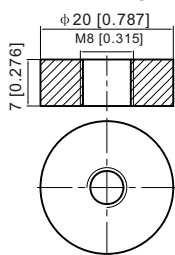
Constant Power Discharge (Watts) at 20 °C (68 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	290.5	256.8	228.5	184.2	144.5	117.3	69.2	50.4	40.1	33.4	29.2	23.2	19.3	10.29
1.80V/cell	314.4	273.0	240.7	193.5	149.6	120.5	70.7	51.1	40.5	33.8	29.5	23.5	19.5	10.39
1.75V/cell	327.1	280.4	246.1	197.1	152.7	122.2	71.8	52.1	41.4	34.4	29.9	23.7	19.6	10.44
1.70V/cell	345.9	290.4	253.4	202.9	155.9	125.6	73.1	53.1	42.0	34.9	30.3	23.9	19.7	10.48
1.65V/cell	365.5	302.7	261.4	208.9	159.2	128.3	74.7	54.3	42.7	35.3	30.8	24.1	19.9	10.53
1.60V/cell	386.0	316.0	269.2	213.2	162.4	130.4	75.6	54.9	43.2	35.8	31.1	24.3	20.0	10.57

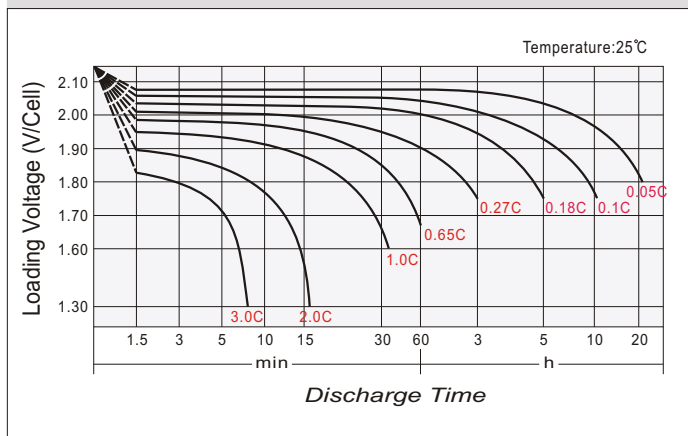
Dimensions

T11 Terminal

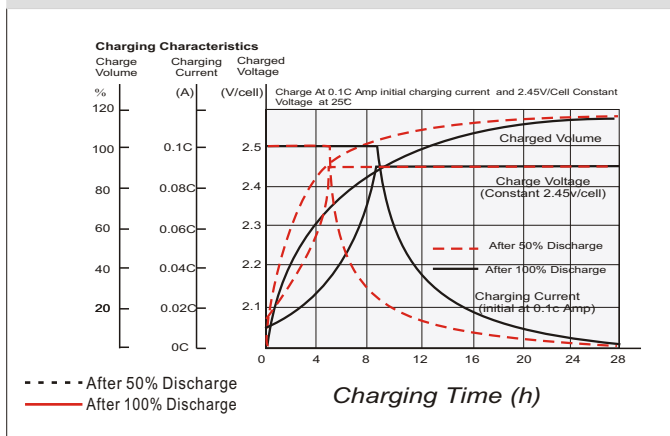
Unit: mm [inches]



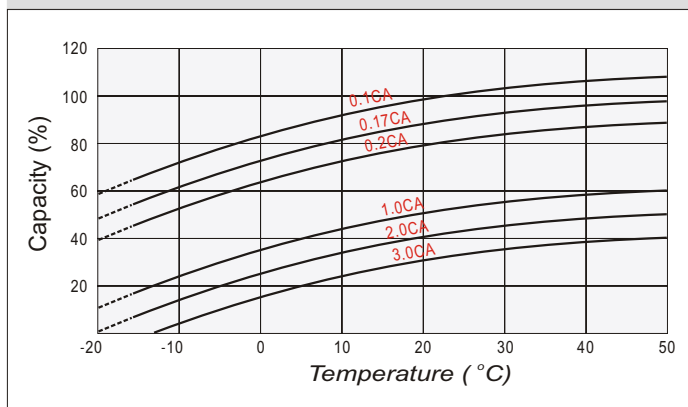
Discharge characteristics



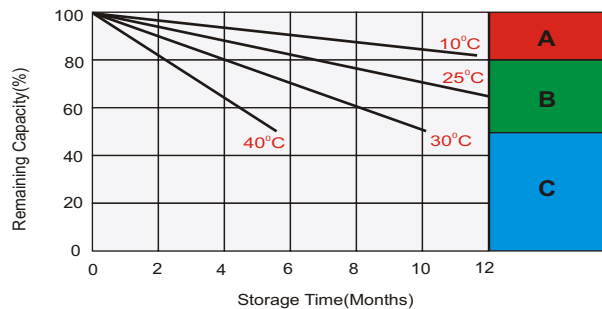
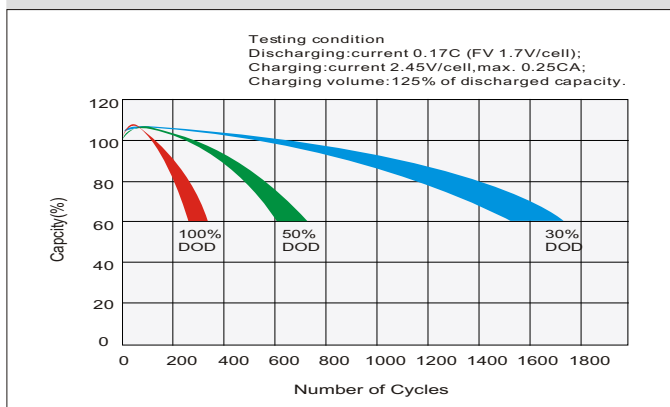
Cycle use charging characteristics



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 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.