

# 3-EV-210(B)

(6V210Ah/5HR)



3-EV-210(B) is a flooded Lead Acid battery that adopts Tubular Plate technology to offer high reliability and performance. It is specially designed for frequent deep cycle discharge. The Battery is designed and manufactured according to GB/T 32620-2016 standards and with die-casting positive spine and patent formula of active material. Suitable for mobility scooters, electric wheel chairs, golf buggies etc.



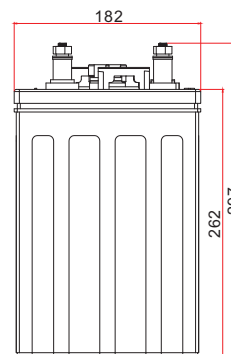
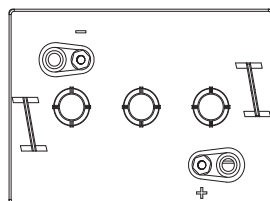
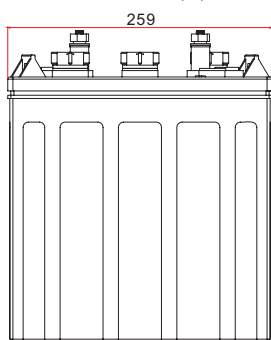
## Specification

Voltage Per Unit	6V
Capacity	240Ah@20hr-rate to 1.75V per cell @25°C 210Ah@5hr-rate to 1.70V per cell @25°C
Approx Weight	Including electrolyte 31.0 Kg
Internal Resistance	Approx. 3.0mΩ
Operating Temperature Range	Discharge:-40°C~60°C Charge:-20°C~50°C Storage:-40°C~60°C
Optimal Operating Temperature Range	25°C±5°C
Float charging Voltage	6.9 to 7.2 VDC/unit Average at 25°C
Maximum Charging Current	42A
Cycle Service	7.95 to 8.55 VDC/unit Average at 25°C
Self Discharge	Self-discharge rate less than 3.5% per month at 25°C. Please charge batteries before using.
Container Material	PP



## Dimensions

Unit: mm Dimension: 259 (L) × 182 (W) × 297 (H)



### Constant Current Discharge Characteristics: A(25°C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
4.80V	198.9	139.3	80.7	60.4	49.3	44.2	38.3	29.8	24.7	13.6
4.95V	194.4	136.1	78.9	59.1	48.2	43.2	37.5	29.2	24.1	13.2
5.10V	188.9	132.3	76.7	57.4	46.8	42.0	36.4	28.4	23.4	12.7
5.25V	181.7	127.2	73.7	55.2	45.0	40.4	35.0	27.3	22.5	12.1
5.40V	173.5	121.5	70.4	52.7	43.0	38.6	33.4	26.0	21.5	11.6
5.55V	164.3	115.1	66.7	49.9	40.8	36.5	31.7	24.7	20.4	10.6

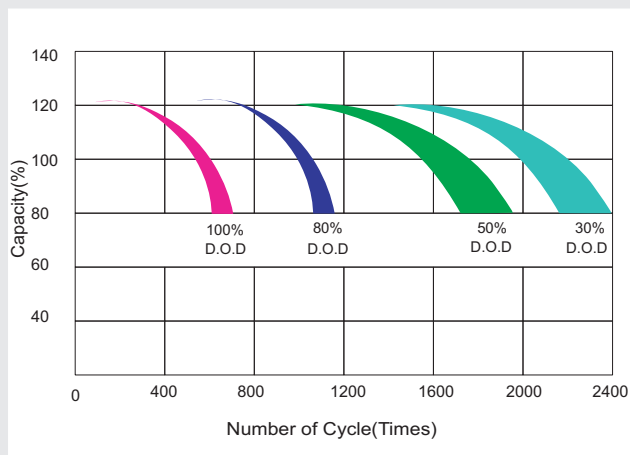
### Constant Power Discharge Characteristics: W(25°C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
4.80V	1116.2	804.8	475.6	359.6	293.9	263.8	228.7	178.2	147.3	81.9
4.95V	1096.2	788.2	465.8	352.9	288.1	258.6	224.2	174.7	144.4	79.5
5.10V	1077.8	767.3	453.4	344.1	280.7	252.0	218.4	170.1	140.5	76.6
5.25V	1037.4	738.1	436.2	330.9	269.9	242.3	210.0	163.6	135.1	73.0
5.40V	991.4	708.6	418.7	316.0	258.0	231.4	200.6	156.2	129.0	69.7
5.55V	944.8	676.6	399.8	299.7	244.5	219.3	190.1	148.0	122.3	64.4

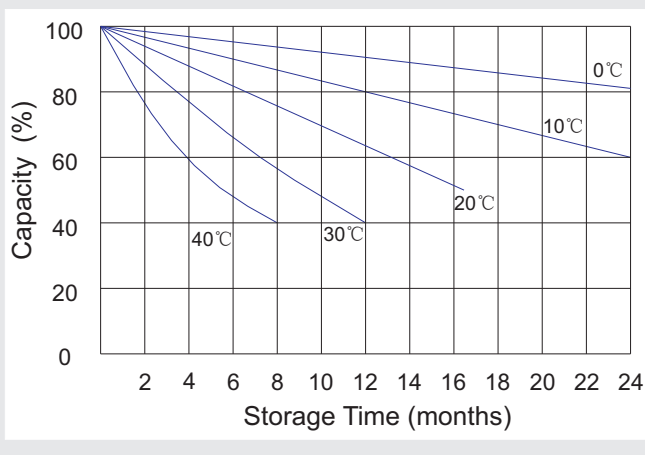
All mentioned values are average values ( Tolerance ±2%)



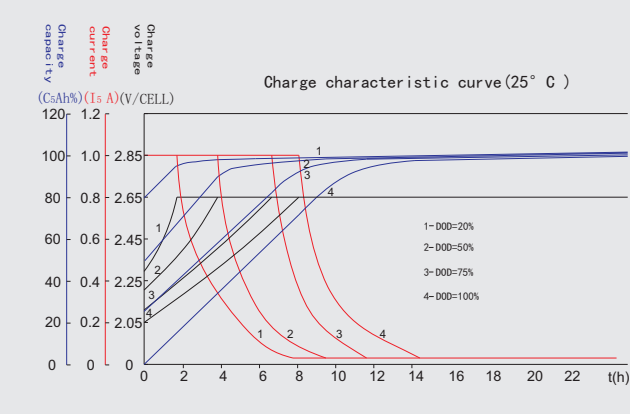
Life characteristics of cyclic use



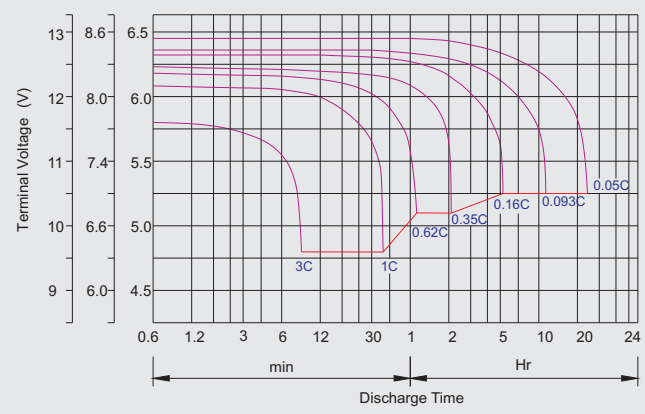
Storage characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



### Discharge Current VS. Discharge Voltage

Final D ischarge Voltage V /cell	1.75V	1.70V	1.60V
Discharge Current ( A )	$\langle A \rangle \leq 0.2C$	$0.2C < \langle A \rangle < 1.0C$	$\langle A \rangle \geq 1.0C$

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method(C=C<sub>s</sub>):

Constant Voltage	$0.2C \times 2h + 2.65V / \text{cell} \times 12h$ , Max. Current 0.2C
Constant Current	$0.14C \times 6h + 0.07C \times 6h$

### Maintenance & Cautions

<b>Cycle service</b>
※ Avoid battery over discharge, especially battery series connection use.
※ Charged with recommend voltage, ensure battery can be full recharged.
In general, recharge capacity should be 1.2-1.3 times discharge capacity.
※ Effect of temperature on cycle charge voltage: $-4mV/^\circ C / \text{Cell}$ .
※ There are a number of factors that will affect the length of cyclic service.
The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
Generally speaking, the most important factors is depth of discharge.