

# 4-EV-140(B)

(8V140Ah/5HR)



4-EV-140(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.

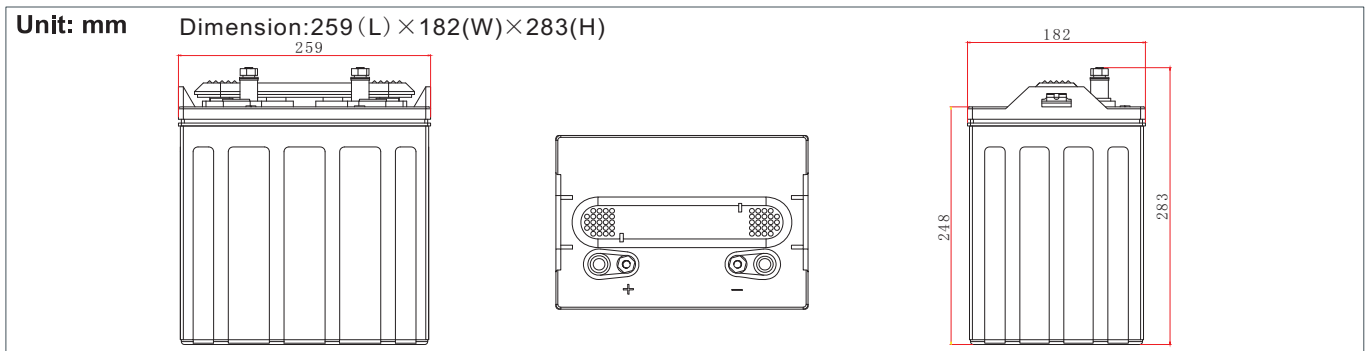


## Specification

<b>Voltage Per Unit</b>	8V
<b>Capacity</b>	160Ah@20hr-rate to 1.75V per cell @25 C 140Ah@5hr-rate to 1.70V per cell @25°C
<b>Approx Weight</b>	Including electrolyte 30.0 Kg
<b>Internal Resistance</b>	Approx. 3.2mΩ
<b>Operating Temperature Range</b>	Discharge:-40°C~60°C Charge:-20°C~50°C Storage:-40°C~60°C
<b>Optimal Operating Temperature Range</b>	25°C±5°C
<b>Float charging Voltage</b>	9.2 to 9.6 VDC/unit Average at 25°C
<b>Maximum Charging Current</b>	30A
<b>Cycle Service</b>	10.6 to 11.4 VDC/unit Average at 25°C
<b>Self Discharge</b>	Self-discharge rate less than 3.5% per month at 25°C. Please charge batteries before using.
<b>Container Material</b>	PP



## Dimensions



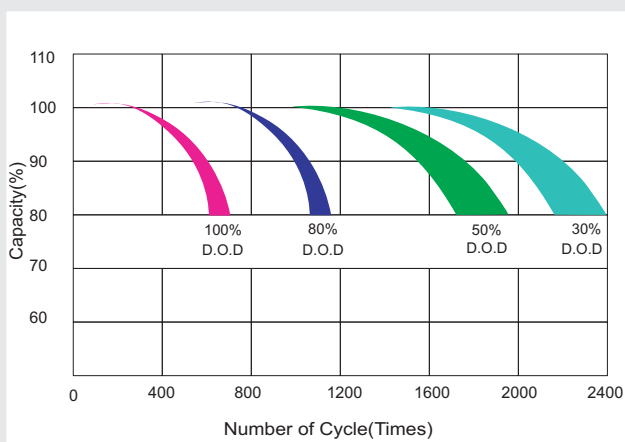
Constant Current Discharge Characteristics:A(25°C)										
F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
6.40V	132.6	92.9	53.8	43.1	32.9	29.5	25.6	19.9	16.4	9.0
6.60V	129.6	90.7	52.6	42.1	32.1	28.8	25.0	19.4	16.1	8.7
6.80V	126.0	88.2	51.1	41.0	31.2	28.0	24.3	18.9	15.6	8.4
7.00V	121.2	84.8	49.1	39.4	30.0	26.9	23.3	18.2	15.0	8.0
7.20V	115.7	81.0	46.9	37.6	28.7	25.7	22.3	17.4	14.3	7.6
7.40V	109.6	76.8	44.5	35.6	27.2	24.4	21.1	16.4	13.6	7.0

Constant Power Discharge Characteristics:W(25°C)										
F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
6.40V	992.1	715.4	422.8	342.2	261.2	234.5	203.3	158.4	130.9	72.1
6.60V	974.4	700.6	414.0	335.8	256.1	229.9	199.3	155.3	128.4	70.0
6.80V	958.1	682.0	403.1	327.4	249.5	224.0	194.1	151.2	124.9	67.4
7.00V	922.1	656.1	387.7	314.8	239.9	215.4	186.7	145.4	120.1	64.2
7.20V	881.3	629.9	372.2	300.7	229.3	205.7	178.3	138.8	114.7	61.4
7.40V	839.8	601.4	355.4	285.2	217.3	194.9	168.9	131.6	108.7	56.7

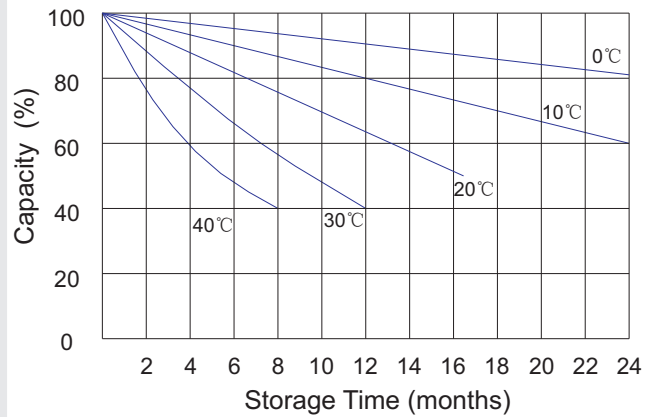
All mentioned values are average values (Tolerance ±2%)



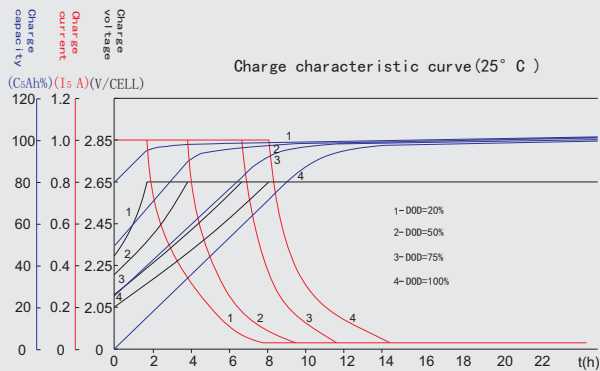
Life characteristics of cyclic use



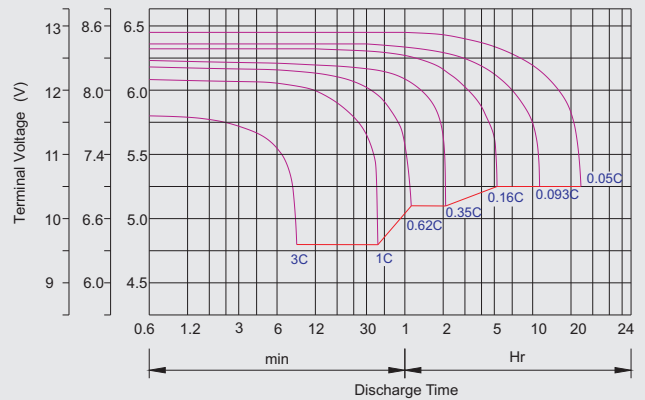
Storage characteristic



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 )	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

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

Charging Method(C=C<sub>5</sub>):

Constant Voltage	0.2Cx2h+2.65V/cellx12h, Max. Current 0.2C
Constant Current	0.14Cx6h+0.07Cx6h

### 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/°C/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.