



## Specification Sheet

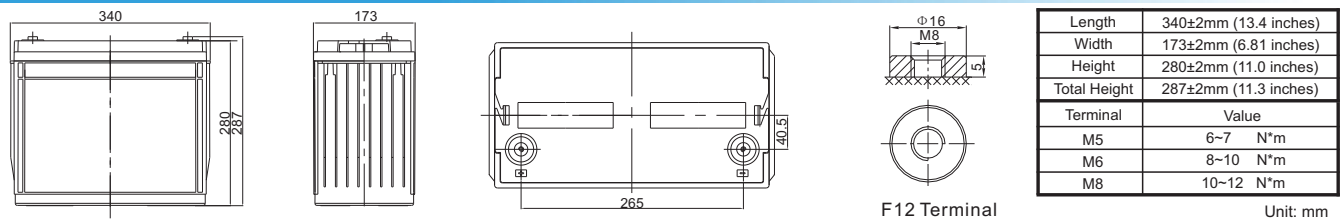
## Deep Cycle VRLA Battery

## DC12-140 (12V140Ah)

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	140Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 39 Kg (Tolerance ± 1.5%)
Internal Resistance	Approx. 4.0 mΩ
Terminal	F14(M8)
Max. Discharge Current	1400A (5 sec)
Short Circuit Current	2520A
Design Life	12 years (Float charging)
Recommended Maximum Charging Current	28 A
Reference Capacity	C3 103.6AH C5 116.2AH C10 140.0AH C20 144.2AH
Standby Use Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



## Dimensions



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

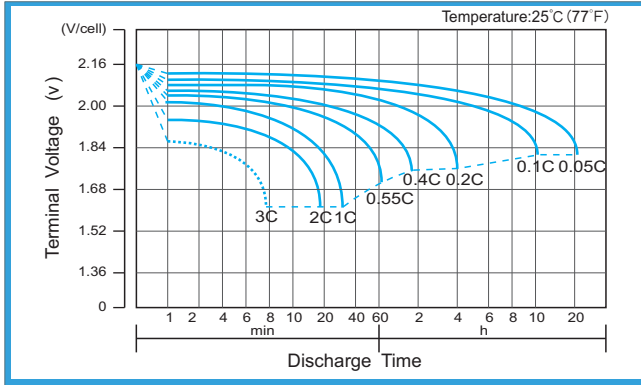
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	318.6	250.3	151.1	86.3	53.0	37.7	32.2	26.2	18.2	15.0	7.43
1.65V	311.0	245.6	146.8	85.6	52.1	36.1	31.8	25.9	18.0	14.8	7.36
1.70V	298.5	237.0	143.4	83.4	51.2	35.4	31.3	24.5	17.7	14.6	7.38
1.75V	282.3	224.6	138.6	82.6	50.0	34.5	30.6	23.3	17.4	14.3	7.21
1.80V	260.6	211.1	131.1	78.8	48.1	34.3	29.6	22.2	17.0	14.0	7.12
1.85V	235.0	192.7	121.5	73.9	46.1	34.0	28.4	21.2	16.4	13.9	7.02

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

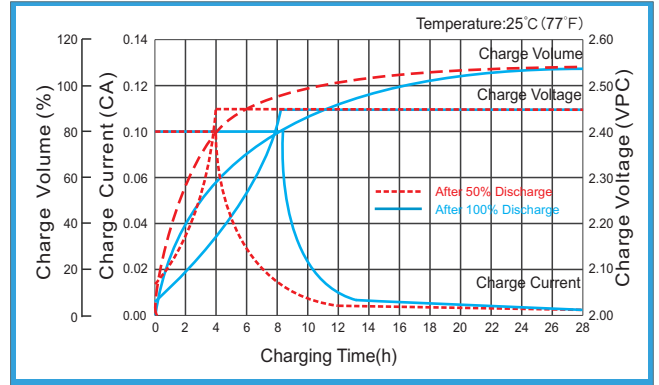
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	553	448	280	169	103	76.9	62.8	53.2	36.0	30.8	15.8
1.65V	551	445	278	168	102	76.3	62.3	52.9	35.8	30.6	15.7
1.70V	535	433	272	164	100	75.2	61.4	52.2	35.3	30.2	15.6
1.75V	515	418	263	160	98.2	73.7	60.3	51.2	34.8	29.8	15.4
1.80V	485	397	252	153	95.1	71.5	58.6	50.0	34.0	29.1	15.1
1.85V	445	368	236	145	91.0	68.7	56.4	48.2	32.9	28.2	14.7

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C<sub>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

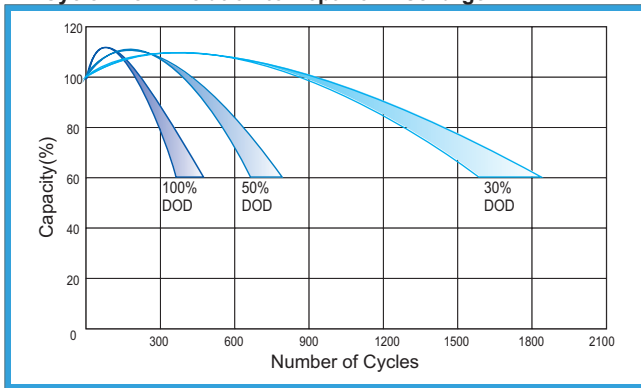
**Discharge Characteristics Curve**



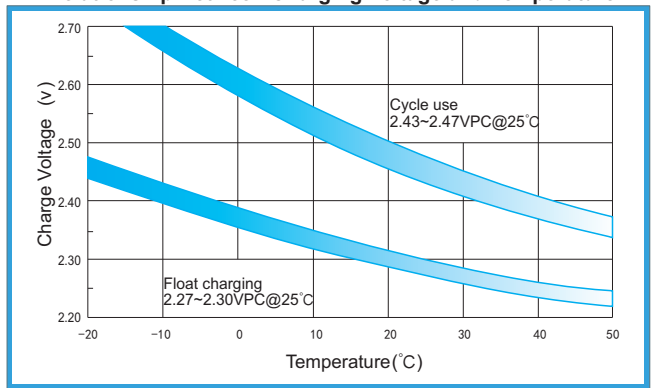
**Charge Characteristic Curve for Cycle Use(IU)**



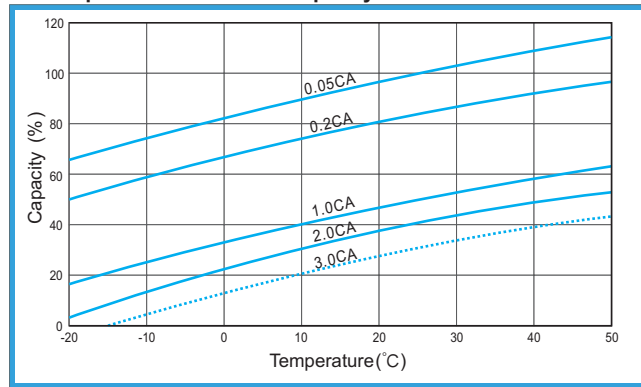
**Cycle Life in Relation to Depth of Discharge**



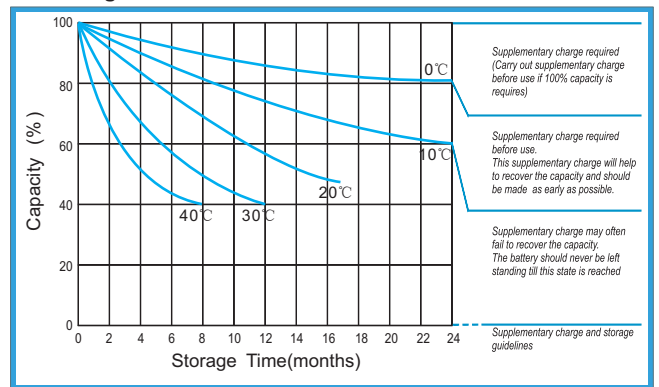
**Relationship Between Charging Voltage and Temperature**



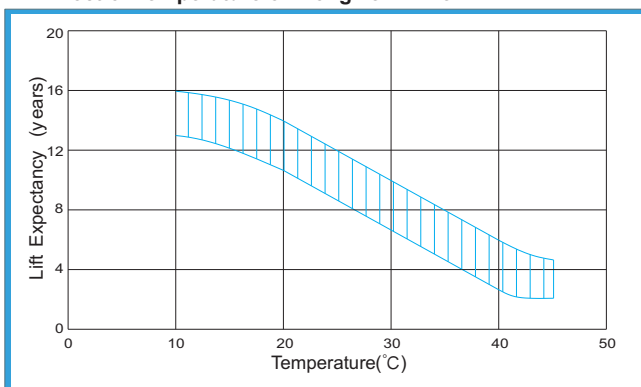
**Temperature Effects on Capacity**



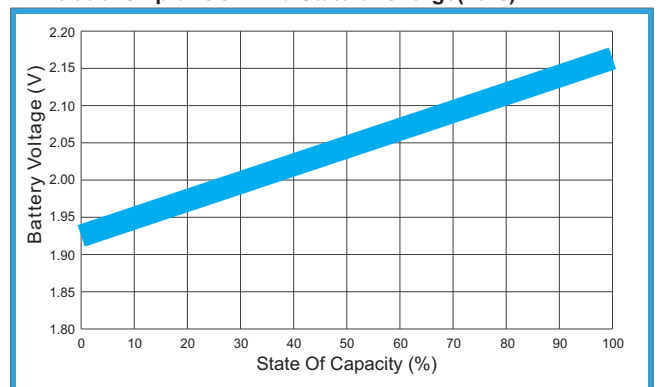
**Storage Characteristics**



**Effect of Temperature on Long Term Life**



**Relationship of OCV And State of Charge(20°C)**



(Note) All above information shall be changed without prior notice, AxiWin reserves the right to explain and update the latest information.