

# SMART

AGM deep cycle

## DC12-110

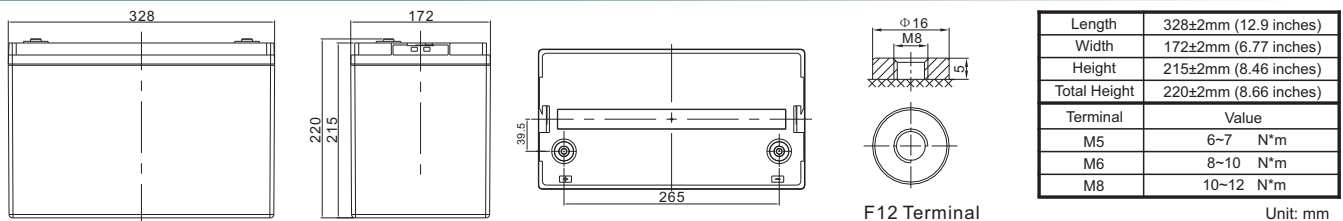
### Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	110@100-rate to 1.80V per cell @25°C
Weight	Approx. 30.0 Kg (Tolerance± 4.0%)
Internal Resistance	Approx. 5mΩ
Terminal	F12(M8) /F5 (M8)
Max. Discharge Current	1000 A (5 sec)
Design Life	12 years (floating charge)
Recommended Maximum Charging Current	30.0 A
Reference Capacity	C20 100.0AH C100 110.0AH
Standby Use Voltage	13.6 V~13.8 V @ 25°C
Cycle Use Voltage	14.6 V~14.8 V @ 25°C
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	SMART 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.
Constainer Material	A.B.S. UL94-HB, UL94-V0 Optional.



DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offers 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment, RV, telecom, broadband and cable TV, UPS systems etc.

### Dimensions



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

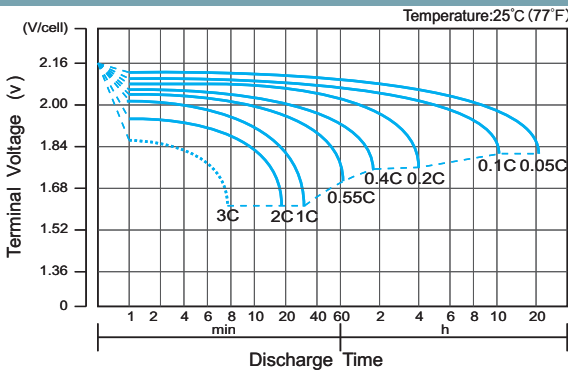
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	225.4	173.7	100.7	59.3	35.5	26.5	20.9	17.6	12.0	10.2	5.20
1.65V	217.9	168.5	98.6	58.2	34.9	26.1	20.6	17.4	11.9	10.1	5.15
1.70V	208.1	161.7	95.8	56.7	34.1	25.5	20.3	17.1	11.7	10.0	5.09
1.75V	195.0	152.5	92.0	54.6	33.0	24.8	19.7	16.7	11.5	9.77	5.00
1.80V	177.4	140.2	86.8	51.9	31.5	23.8	19.0	16.2	11.1	9.50	4.88
1.85V	153.5	123.1	79.4	47.9	29.3	22.3	17.9	15.4	10.6	9.12	4.70

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

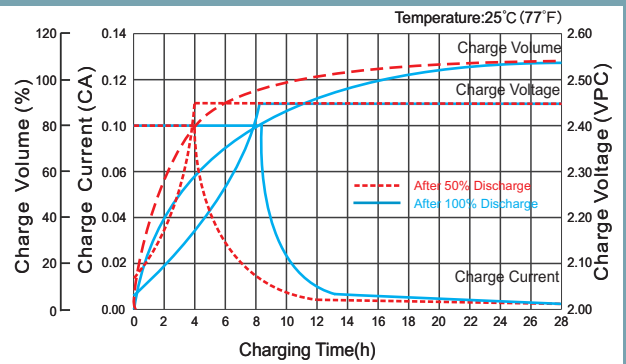
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	403	320	193	117	70.8	53.2	42.3	35.8	24.7	21.1	10.8
1.65V	400	317	191	116	70.1	52.7	41.9	35.5	24.5	20.9	10.7
1.70V	386	306	187	113	68.7	51.7	41.2	35.0	24.2	20.7	10.6
1.75V	369	293	181	110	66.8	50.5	40.3	34.3	23.7	20.3	10.4
1.80V	341	273	173	105	64.1	48.6	39.0	33.3	23.1	19.8	10.2
1.85V	300	244	160	97.2	60.0	45.8	36.9	31.7	22.1	19.0	9.80

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

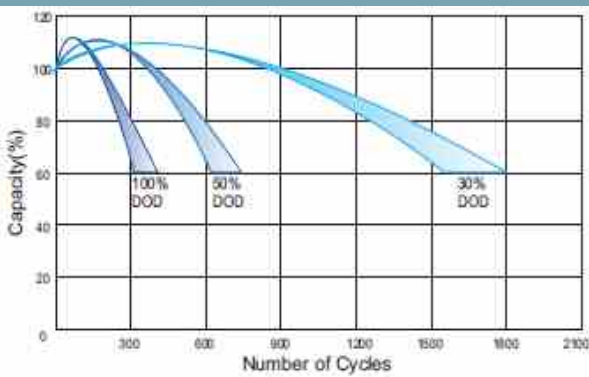
### Discharge Characteristics Curve



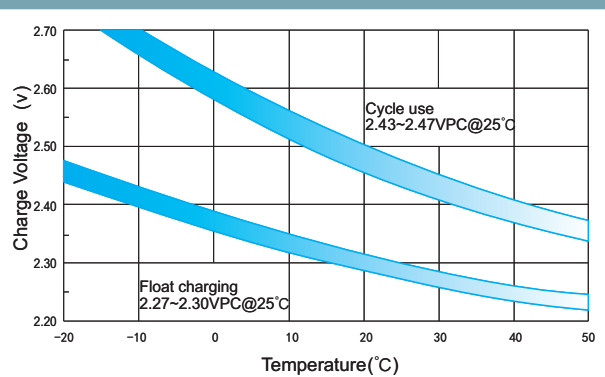
### Charge Characteristic Curve For Standby Use



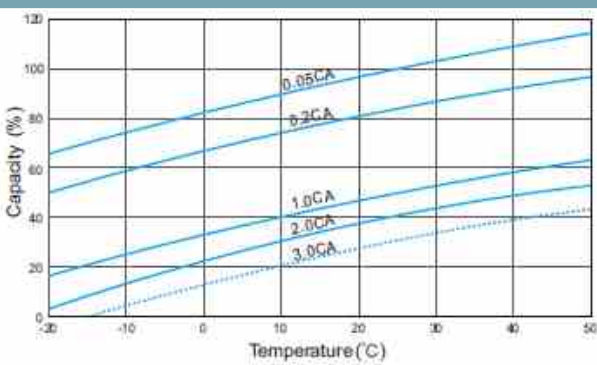
### Cycle Life In Relation To Depth Of Discharge



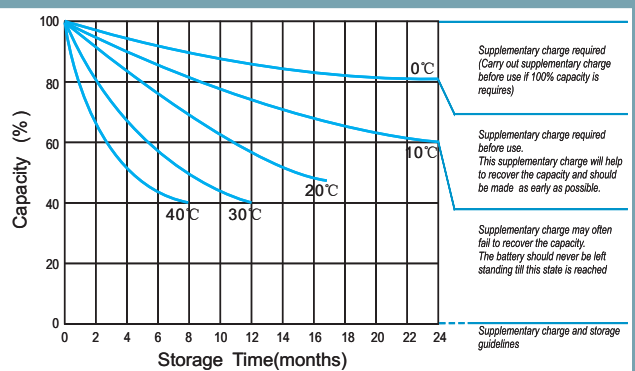
### Relationship Between Charging Voltage And Temperature



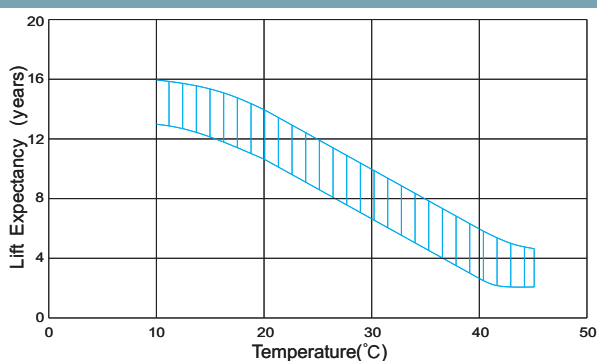
### Temperature Effects On Capacity



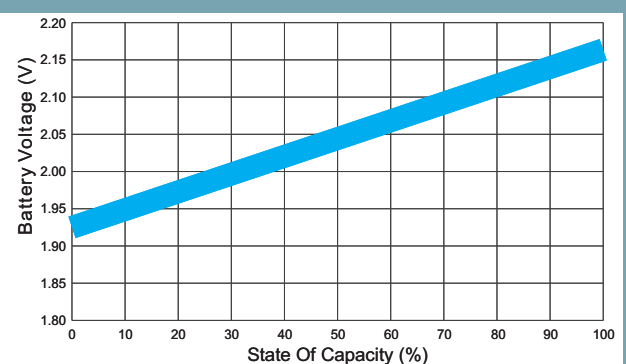
### Storage Characteristics



### Effect Of Temperature On Long Term Life



### Relationship of OCV and Stage of Charge (20y)



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