

Specification

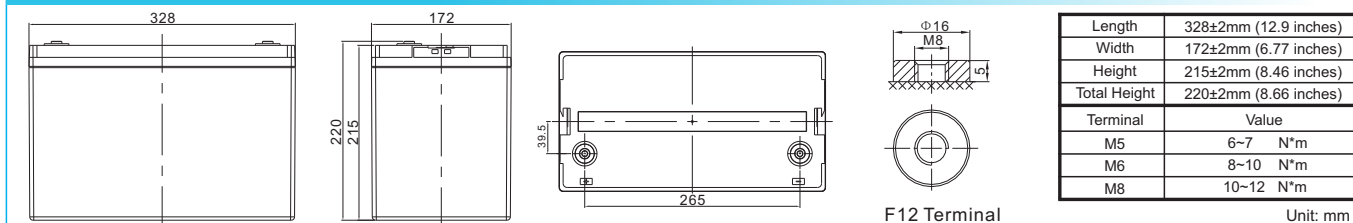


DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharging. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offer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



Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 30.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 5.0 mΩ
Terminal	F5(M8)/F12(M8)
Max. Discharge Current	1140A (5 sec)
Design Life	12 years (floating charge)
Max. Charging Current	36.0 A
Reference Capacity	C3 91.7AH C5 103.4AH C10 114.3AH C20 120.0AH
Float Charging 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	AMP-Tech Plus (VRLA) batteries can be stored for up to 6 months at 25°C 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)

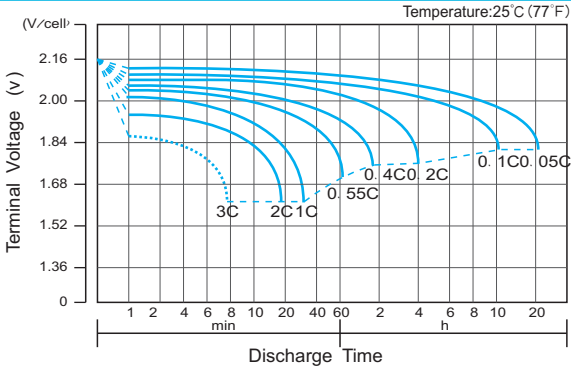
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	268.5	213.4	129.4	72.88	43.40	33.81	26.52	22.56	14.47	12.00	6.219
1.65V	247.3	199.5	122.6	70.40	41.95	32.77	25.73	21.85	14.36	11.89	6.186
1.70V	229.2	187.6	116.2	68.14	40.83	31.38	24.93	21.26	14.13	11.66	6.108
1.75V	210.3	175.7	111.6	66.00	39.26	30.58	24.25	20.67	13.90	11.54	6.000
1.80V	191.4	160.9	107.5	63.07	37.92	30.00	23.69	20.40	13.67	11.43	5.942
1.85V	149.7	133.2	91.15	56.30	34.68	27.92	22.21	18.78	12.87	10.74	5.887

Constant Power Discharge Characteristics : WPC(25°C)

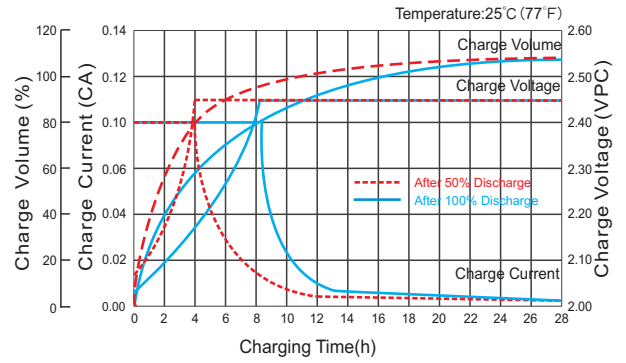
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	457.2	372.2	235.1	136.8	82.06	64.20	51.11	42.70	28.20	23.53	12.42
1.65V	440.2	361.9	229.6	134.5	79.85	62.60	49.87	41.55	27.97	23.31	12.31
1.70V	410.9	342.5	218.5	130.5	77.85	60.20	48.28	40.51	27.63	22.85	12.19
1.75V	382.3	323.3	210.9	126.9	75.09	58.71	47.15	39.58	27.18	22.63	11.97
1.80V	352.3	298.9	204.1	121.7	73.38	58.38	46.24	39.05	26.73	22.40	11.86
1.85V	279.4	251.1	175.0	109.3	67.57	54.46	43.52	36.12	25.27	21.16	11.75

(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 C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

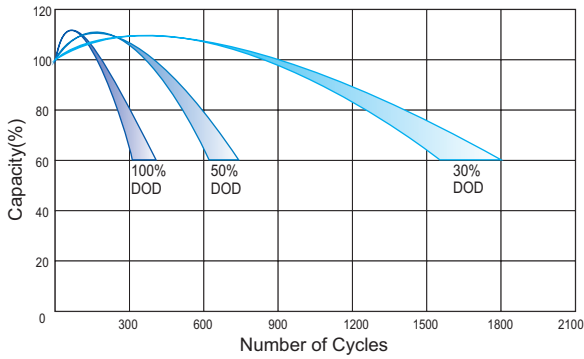
Discharge Characteristics Curve



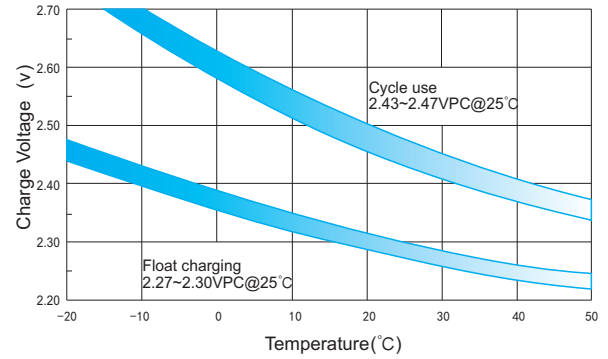
Charge Characteristic Curve for Cycle Use (IU)



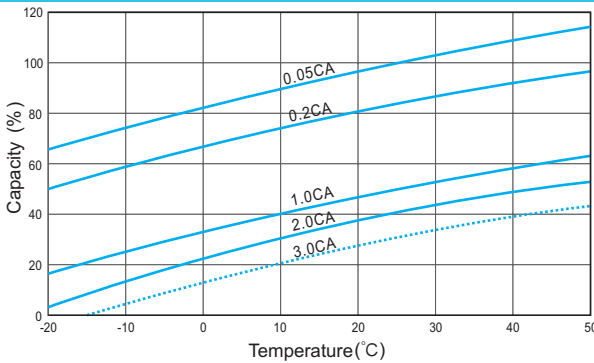
Cycle Life in Relation to Depth of Discharge



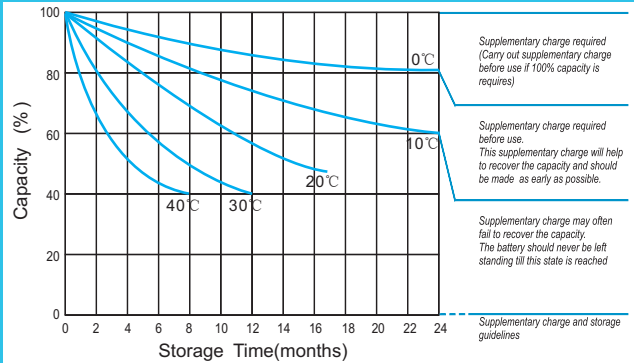
Relationship Between Charging Voltage and Temperature



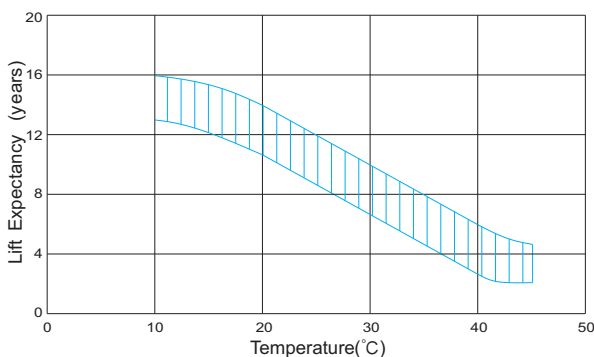
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

