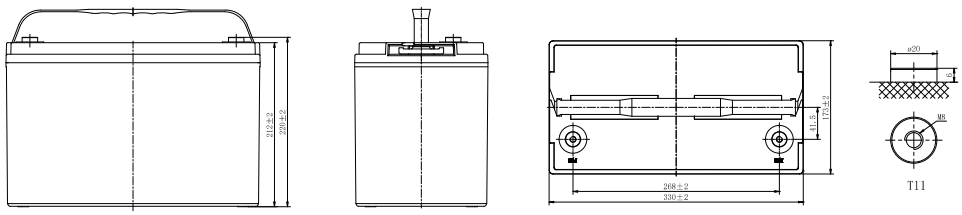
AT121000DS

VALVE REGULATED LEAD ACID AGM BATTERY

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@20hr-rate to 1.75V per cell @25℃
Weight	Approx. 31.7 Kg (Tolerance±3.0%)
Internal Resistance	Approx. 4.5 mΩ
Terminal	T11 (M8)
Max. Discharge Current	1100A (5 sec)
Design Life	12 years (floating charge)
Max. Charging Current	36.0 A
Reference Capacity	C3 89.4AH C5 98.0AH C10 110.0AH C20 120.0AH
Float Charging Voltage	13.5 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.4 V~15.0 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	AMP-Tech Plus (VRLA) batteries can be stored for up to 6 months at 25℃ then recharging is recommended. Monthly self-discharge ratio is less than 3% at 25℃. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



Length	330±2mm (13.0 inches)
Width	173±2mm (6.81 inches)
Height	212±2mm (8.35 inches)
Total Height	220±2mm (8.66 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

Constant Current Discharge Characteristics :A(25℃)

F.V/Time	15MIN	20MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.85V/cell	138.3	108.7	97.2	60.2	36.7	26.9	21.1	18.3	12.4	10.3	5.73
1.80V/cell	156.7	122.9	105.9	62.4	37.9	29.2	22.5	19.3	13.1	11.0	5.94
1.75V/cell	169.6	132.7	108.0	65.5	39.9	29.8	23.0	19.6	13.1	11.1	6.00
1.70V/cell	180.2	140.7	110.2	66.8	40.7	30.4	23.4	19.9	13.3	11.2	6.05
1.65V/cell	185.4	144.6	111.8	67.7	41.3	30.6	23.7	20.4	13.5	11.3	6.14
1.60V/cell	191.2	148.3	113.4	68.7	41.9	30.9	24.0	20.6	13.7	11.4	6.20

Constant Power Discharge Characteristics : WPC(25℃)

F.V/Time	15MIN	20MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.85V/cell	261.8	206.8	185.8	116.5	71.4	52.6	41.4	36.1	24.7	20.5	11.4
1.80V/cell	292.9	231.4	200.7	120.0	73.4	56.8	44.1	37.8	25.9	21.4	11.9
1.75V/cell	312.6	246.9	203.2	125.3	76.9	57.8	44.7	38.3	25.9	21.6	11.9
1.70V/cell	328.6	259.6	205.5	127.2	78.1	58.7	45.3	38.9	26.3	21.8	12.1
1.65V/cell	333.9	263.8	207.0	128.3	78.9	59.0	45.9	39.5	26.6	22.0	12.2
1.60V/cell	338.6	267.5	207.9	129.3	79.6	59.2	46.2	39.9	26.9	22.3	12.3

(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_{20} should reach 95% after the first cycle and 100% after the third cycle.

AMP-TECH

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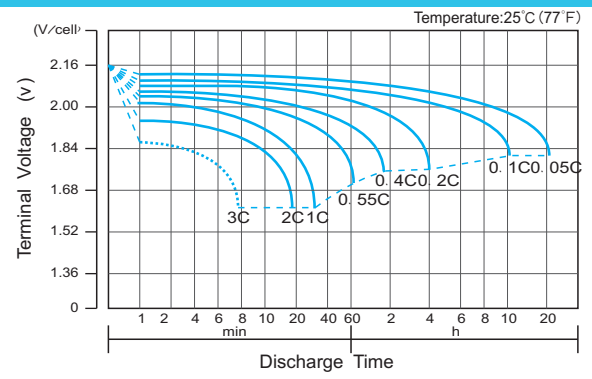
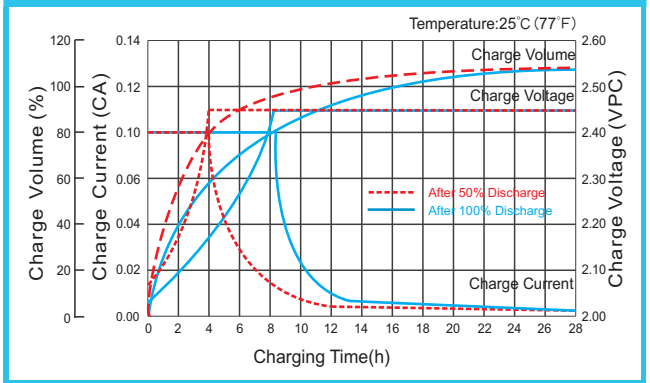
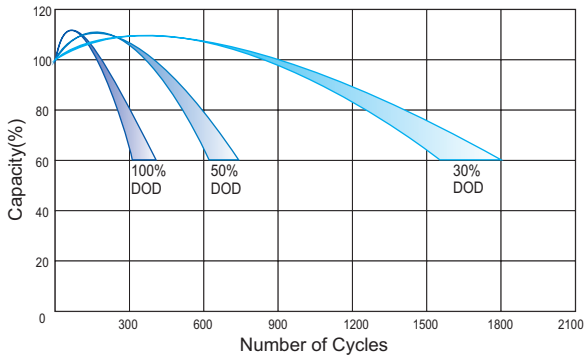
Discharge Characteristics Curve



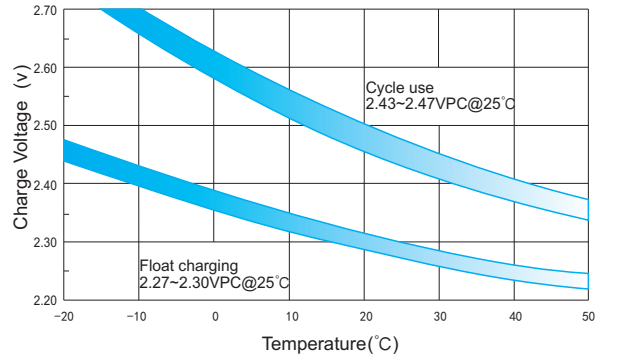
Charge Characteristic Curve for Cycle Use(IU)



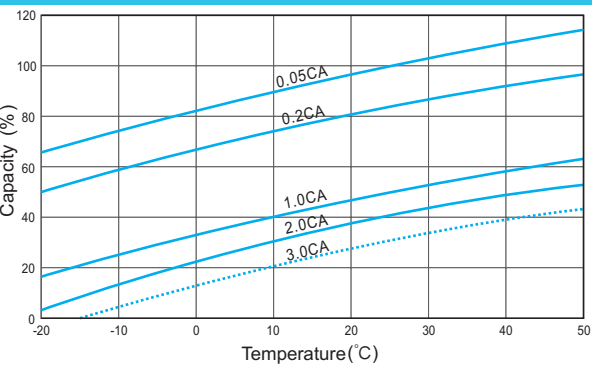
Cycle Life in Relation to Depth of Discharge



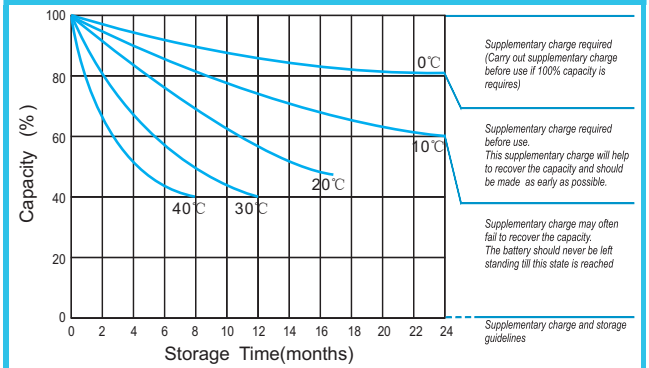
Relationship Between Charging Voltage and Temperature



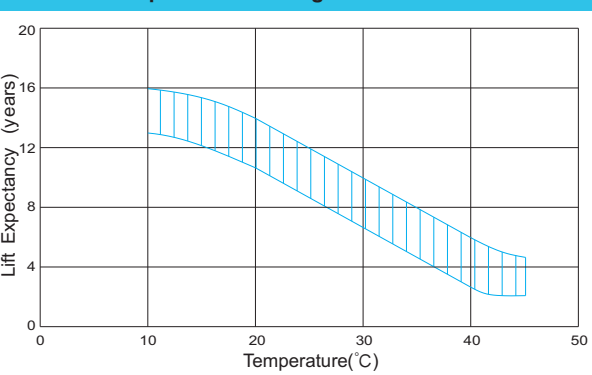
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)