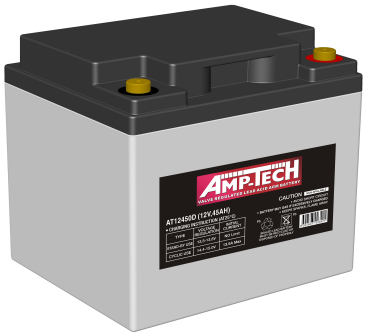
AT12450D

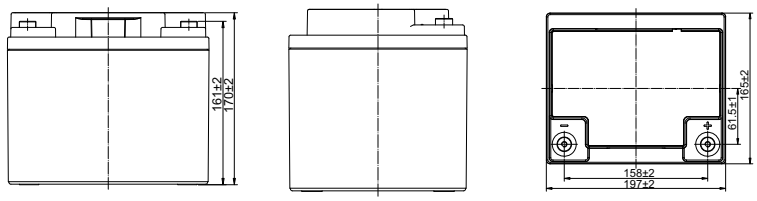
VALVE REGULATED LEAD ACID AGM BATTERY

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	45Ah@10hr-rate to 1.80V per cell @25℃
Weight	Approx.13.2 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 9.0mΩ
Terminal	T6
Max. Discharge Current	450A (5 sec)
Design Life	12 years (floating charge)
Max. Charging Current	13.5 A
Reference Capacity	C3 36.9AH C5 40.6AH C10 45.0AH C20 47.2AH
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



T6 Terminal

Length	197±2mm (7.76 inches)
Width	165±2mm (6.50 inches)
Height	170±2mm (6.69 inches)
Total Height	170±2mm (6.69 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	10MIN	15MIN	20MIN	30MIN	45MIN	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	63.3	54.9	43.2	40.2	32.6	24.9	15.2	11.1	8.73	7.57	5.96	5.13	4.25	2.26
1.80V/cell	71.9	62.2	48.8	43.7	34.8	25.8	15.7	12.1	9.32	7.97	6.27	5.40	4.50	2.34
1.75V/cell	78.0	67.4	52.7	44.6	35.9	27.1	16.5	12.3	9.49	8.11	6.34	5.43	4.52	2.36
1.70V/cell	83.1	71.6	55.9	45.5	36.6	27.6	16.8	12.5	9.66	8.24	6.44	5.51	4.54	2.39
1.65V/cell	85.8	73.6	57.4	46.2	37.1	28.0	17.1	12.7	9.81	8.41	6.55	5.59	4.60	2.42
1.60V/cell	88.7	75.9	58.9	46.9	37.7	28.4	17.3	12.8	9.92	8.53	6.64	5.66	4.66	2.44

Constant Power Discharge Characteristics : WPC(25℃)

F.V/Time	10MIN	15MIN	20MIN	30MIN	45MIN	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	119.2	104.0	82.1	76.8	62.5	48.1	29.5	21.7	17.1	14.9	11.8	10.2	8.46	4.49
1.80V/cell	133.3	116.3	91.9	82.9	66.3	49.6	30.3	23.5	18.2	15.6	12.4	10.7	8.85	4.65
1.75V/cell	142.3	124.1	98.1	84.0	67.9	51.8	31.8	23.9	18.5	15.8	12.4	10.7	8.92	4.69
1.70V/cell	149.6	130.5	103.1	84.9	68.8	52.6	32.3	24.2	18.7	16.1	12.5	10.6	9.01	4.73
1.65V/cell	152.0	132.6	104.8	85.5	69.3	53.0	32.6	24.4	19.0	16.3	12.8	11.0	9.11	4.79
1.60V/cell	154.1	134.5	106.2	85.9	69.7	53.4	32.9	24.5	19.1	16.5	12.9	11.1	9.20	4.84

(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.

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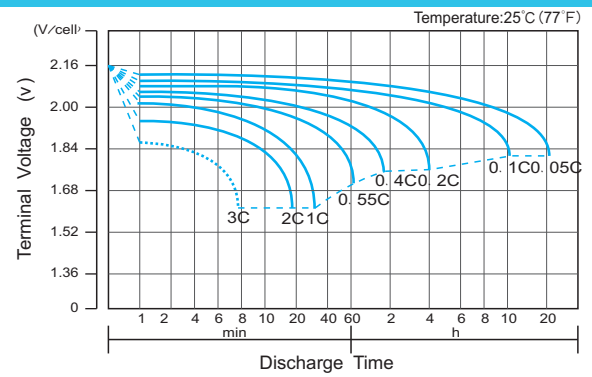
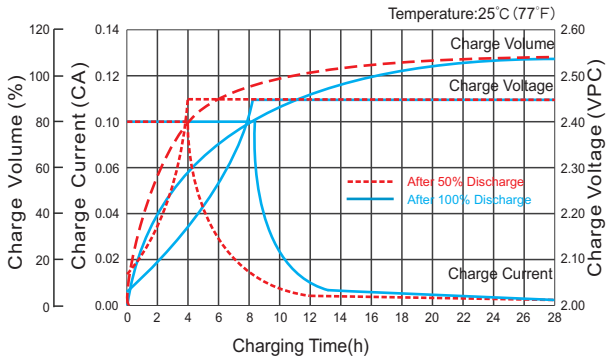
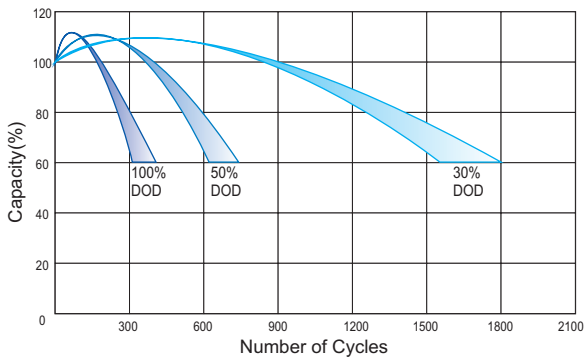
Discharge Characteristics Curve



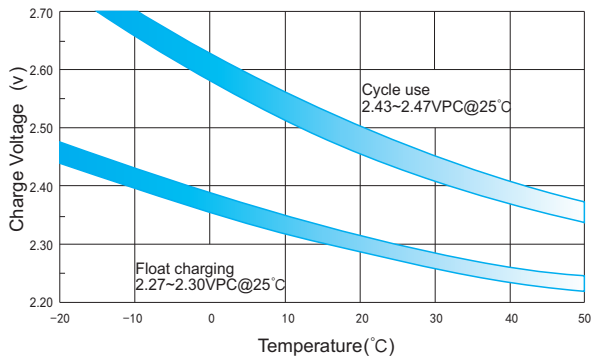
Charge Characteristic Curve for Cycle Use(IU)



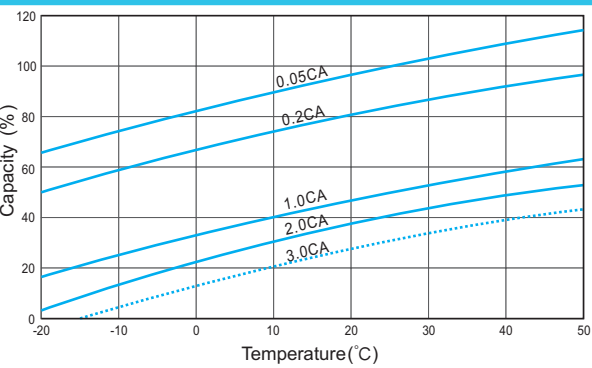
Cycle Life in Relation to Depth of Discharge



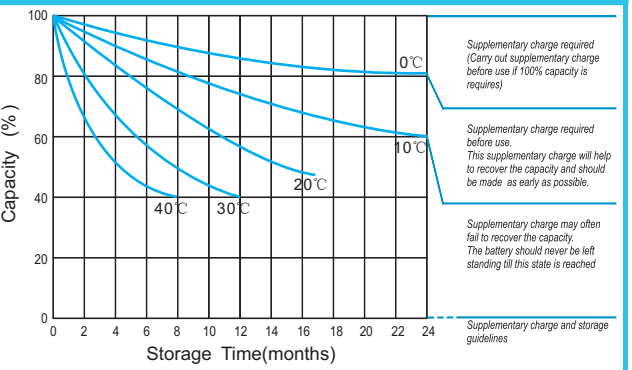
Relationship Between Charging Voltage and Temperature



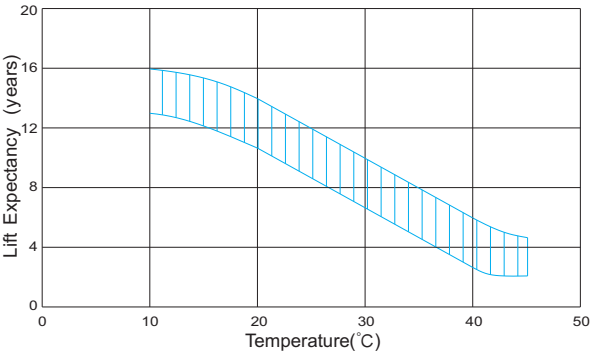
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)