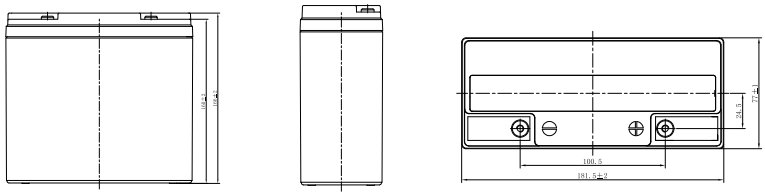
VALVE REGULATED LEAD ACID AGM BATTERY

AT12200D

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	20Ah@20hr-rate to 1.75V per cell @25 ˚C
Weight	Approx. 6.90 Kg (Tolerance±3.0%)
Internal Resistance	Approx. 9.0mΩ
Terminal	T12
Max. Discharge Current	300A (5 sec)
Design Life	5 years (floating charge)
Max. Charging Current	6.0 A
Reference Capacity	C3 15.8AH C5 17.2AH C10 18.6AH C20 20.0AH
Float Charging Voltage	13.5 V~13.8 V @ 25˚C Temperature Compensation: -3mV/˚C/Cell
Cycle Use Voltage	14.4 V~15.0 V @ 25˚C Temperature Compensation: -5mV/˚C/Cell
Operating Temperature Range	Discharge: -15˚C~50˚C Charge: -20℃~40℃ Storage: -15˚C~40˚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 charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



T12 Terminal

Length	181.5±2mm (7.15 inches)
Width	77±1mm (3.03 inches)
Height	166±2mm (6.54 inches)
Total Height	166±2mm (6.54 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˚C)

F.V/Time	5MIN	10MIN	15MIN	20MIN	30MIN	45MIN	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	54.6	40.2	33.5	27.4	20.50	15.0	12.0	6.99	5.11	4.03	3.35	2.87	2.25	1.84	0.980
1.80V/cell	62.0	44.2	36.5	29.5	22.00	15.8	13.0	7.09	5.18	4.08	3.40	2.90	2.28	1.86	0.990
1.75V/cell	68.4	47.3	38.6	31.1	22.9	16.5	13.2	7.21	5.26	4.14	3.44	2.94	2.31	1.88	1.00
1.70V/cell	74.6	50.3	40.6	32.5	23.8	17.0	13.5	7.32	5.34	4.20	3.48	2.98	2.34	1.91	1.01
1.67V/cell	77.7	51.6	41.5	33.0	24.1	17.2	13.6	7.39	5.38	4.23	3.51	3.00	2.35	1.92	1.02
1.60V/cell	84.6	54.8	43.3	34.3	24.9	17.7	13.9	7.54	5.49	4.31	3.58	3.05	2.39	1.95	1.03

Constant Power Discharge Characteristics : WPC(25˚C)

F.V/Time	5MIN	10MIN	15MIN	20MIN	30MIN	45MIN	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	103.7	76.9	64.4	52.6	39.5	29.0	23.3	13.7	10.0	7.93	6.62	5.67	4.47	3.65	1.96
1.80V/cell	117.1	84.1	69.8	56.6	42.2	30.6	25.2	13.9	10.2	8.03	6.70	5.74	4.52	3.69	1.98
1.75V/cell	128.3	89.5	73.4	59.2	43.9	31.7	25.6	14.0	10.3	8.13	6.77	5.80	4.57	3.74	2.00
1.70V/cell	139.0	94.6	76.8	61.6	45.4	32.7	25.9	14.2	10.4	8.22	6.85	5.87	4.62	3.78	2.02
1.67V/cell	144.3	96.8	78.2	62.5	46.0	33.0	26.2	14.3	10.5	8.28	6.90	5.91	4.65	3.80	2.03
1.60V/cell	155.7	101.8	81.1	64.5	47.1	33.7	26.7	14.6	10.7	8.42	7.00	6.00	4.72	3.86	2.06

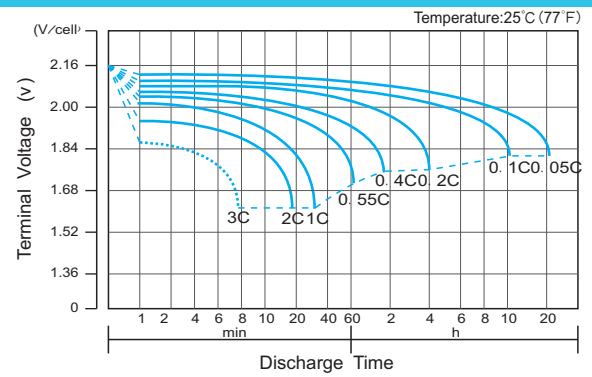
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.
The battery must be fully charged before the capacity test. The C_{20} should reach 95% after the first cycle and 100% after the third cycle.

AMP-TECH

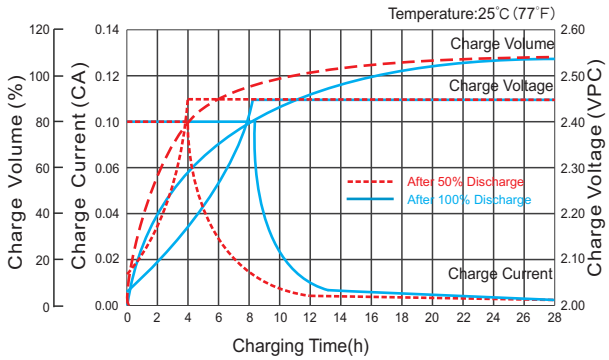
AT12200D

VALVE REGULATED LEAD ACID AGM BATTERY

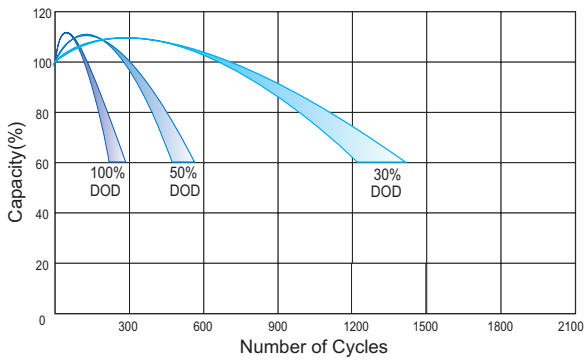
Discharge Characteristics Curve



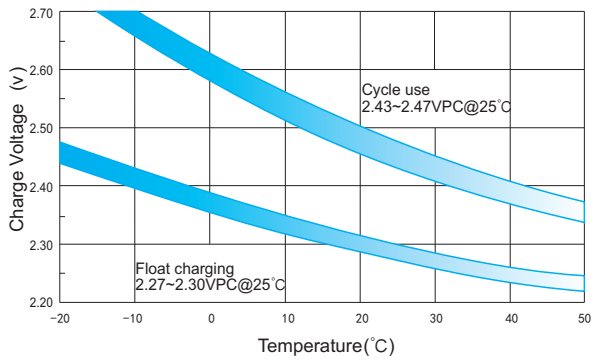
Charge Characteristic Curve for Cycle Use(IU)



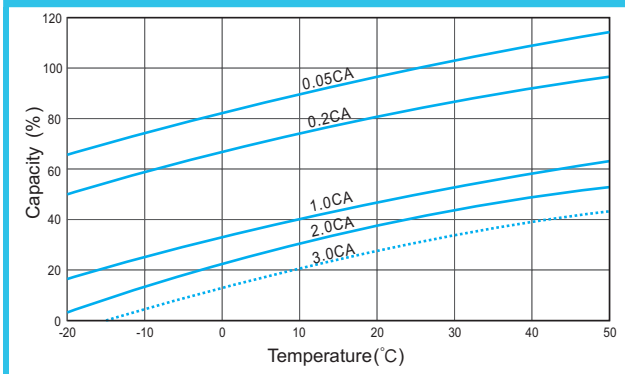
Cycle Life in Relation to Depth of Discharge



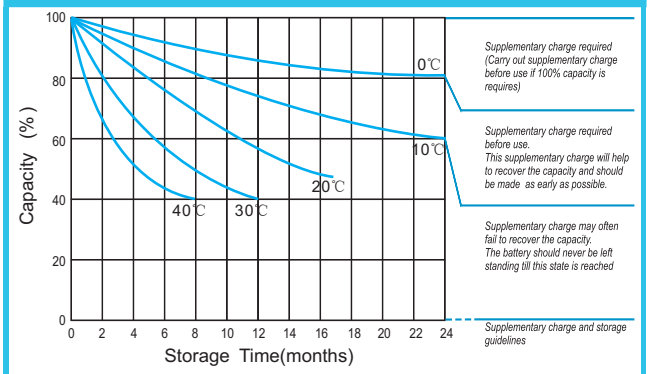
Relationship Between Charging Voltage and Temperature



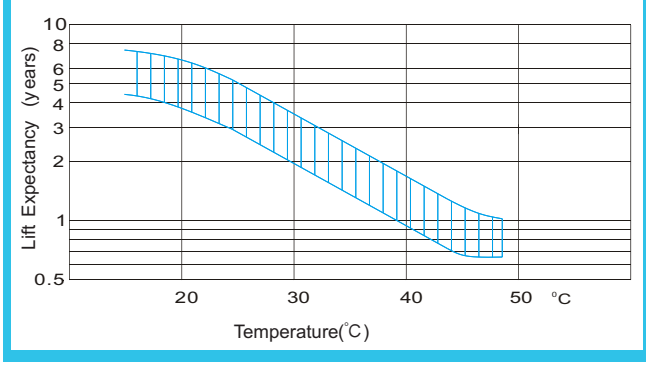
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)