

Sealed Lead-Acid Battery

Front Terminal

689-5863(12V100Ah)

Specification

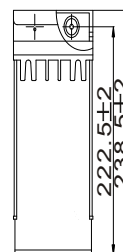
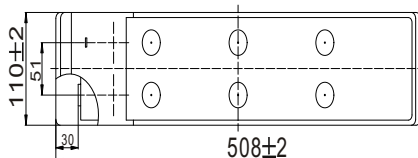
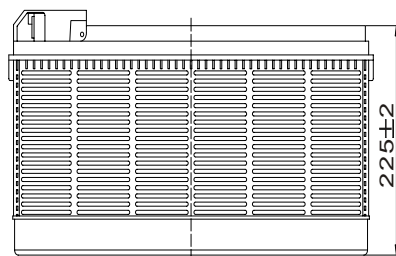
Cells Per Unit	6
Voltage Per Unit	12
Capacity	100.0Ah@8hr-rate to 1.80V per cell @25°C
Weight	Approx 35.6 kg
Max. Discharge Current	1000 A(5 sec)
Internal Resistance	Approx 4.9mΩ
Operating Temp.Range	Discharge : -15~50°C (5~122°F) Charge : 0~40°C (32~104°F) Storage : -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Float charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	30A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	T13
Container Material	A.B.S. (UL94-HB) , Flammability resistance of UL94-V0 can be available upon request.

Applications

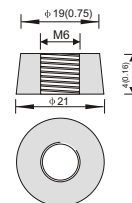
- ◆ For standard 19 inches or 23 inches power cabinets
- ◆ Network connection equipment of communication system
- ◆ Power system of special network or local area network
- ◆ UPS, standby power supply
- ◆ Power station systems
- ◆ Railway and marine systems

Dimensions

Unit: mm Dimension: 508(L)×110(W)×238.5(H)



Terminal T13



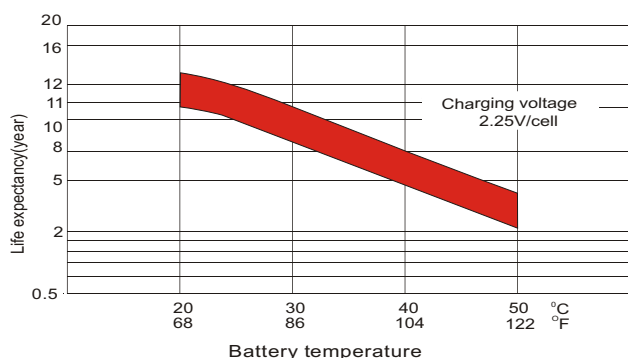
Constant Current Discharge Characteristics : A (25 °C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
11.1V	195.1	173.9	145.0	124.4	97.6	75.7	61.5	36.7	26.4	21.2	17.6	15.3	11.9	9.92	5.26
10.8V	227.0	197.2	161.6	137.7	106.8	81.4	65.7	38.7	28.1	22.3	18.5	16.1	12.5	10.4	5.50
10.5V	258.0	216.4	174.9	146.9	112.2	84.5	68.0	39.4	28.6	22.9	18.9	16.3	12.7	10.5	5.58
10.2V	282.7	231.5	184.2	152.9	115.5	86.5	68.9	40.0	28.8	23.0	19.0	16.5	12.8	10.6	5.62
9.90V	298.8	239.5	188.8	156.0	117.0	86.8	69.2	40.1	29.0	23.2	19.2	16.7	13.0	10.7	5.65
9.60V	319.1	251.8	196.0	163.0	119.9	89.1	71.0	40.8	29.6	23.7	19.7	17.0	13.3	10.9	5.68

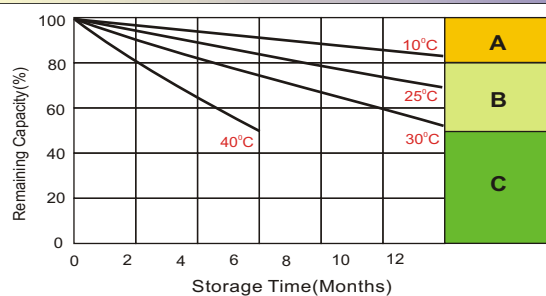
Constant Power Discharge Characteristics : W (25 °C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
11.1V	2175.0	1948.5	1640.7	1422.0	1127.6	881.8	719.3	431.8	312.0	251.4	208.6	182.0	142.4	119.0	63.1
10.8V	2489.7	2183.2	1804.0	1551.1	1215.2	941.3	763.7	452.5	330.3	263.0	218.5	190.5	149.1	124.3	65.9
10.5V	2775.6	2358.0	1928.6	1639.5	1266.6	968.1	787.2	459.4	334.2	268.8	222.7	192.9	150.6	125.6	66.8
10.2V	2954.8	2465.9	2003.5	1692.9	1296.5	986.7	795.3	464.9	337.0	270.1	223.3	194.8	152.6	126.7	67.3
9.90V	3092.6	2541.8	2044.8	1721.0	1310.2	987.0	796.7	465.7	338.1	271.8	225.5	196.6	154.4	127.7	67.5
9.60V	3182.1	2598.0	2081.3	1772.4	1325.9	1002.2	809.4	469.4	342.8	276.0	230.3	199.6	157.4	129.9	67.8

Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



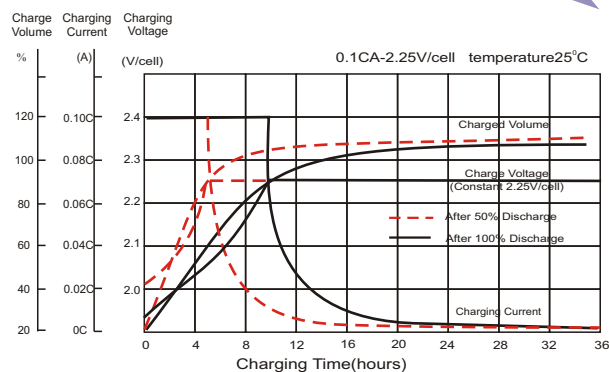
A No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below:

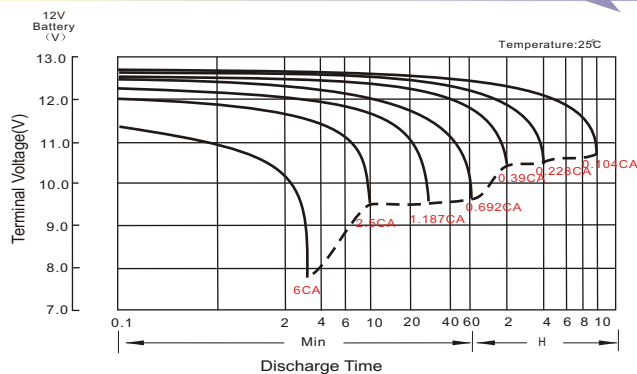
B 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.

C Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

Float Charging Characteristics



Discharge Characteristics



Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx 12h
Fast	-0.2Cx2h+0.3CAx4.0h

Maintenance & Cautions

Float Service:
◆very month, recommend inspection every battery voltage.
◆Every three months, recommend equalization charge for one time.
Equalization charge method:
Discharge: 100% rate capacity discharge.
Charge: Max. current 0.3CA, constant voltage 2.35V/Cell charge 24h.
◆Effect of temperature on float charge voltage: -3mV/°C/Cell.
◆Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.

