HT-12V 220D (12V 220AH)

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and thus immobilized. Should the battery be accidentally overcharged producing bydrogen and oxygen, Special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

Battery Construction

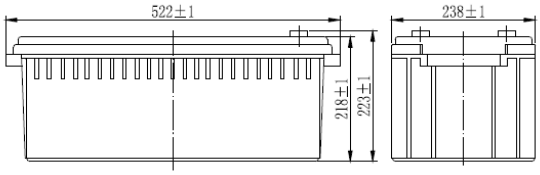
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

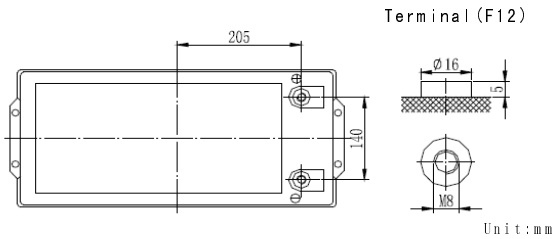
General Feature

- Absorbent Glass Mat(AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

SPECIFICATION

Nominal voltage ····· 12V
Number of cell ····· 6
Length(mm/inch) ····· 522/20.55
Width(mm/inch ····· 238/9.37
Height(mm/inch) ····· 218/8.58
Total Height(mm/inch) ····· 222/8.74
Approx. Weight(kg/lbs) ····· 62/136.6
CCA ····· 1250





Performance Characteristics

Capacity 77°F(25℃)	20 hour rate (11A 、10.8V)	220Ah
	10 hour rate (21A、10.8V)	210Ah
	5 hour rate (39A、10.5V)	190Ah
	1 hour rate (135A、9.6V)	135Ah
Internal Resistance	Full charged Battery77°F(25℃)：4mΩ	
Capacity affected by Temperature (20 hour rate)	104° F(40℃)	102%
	77° F(25℃)	100%
	32° F(10℃)	85%
	5° F(-15℃)	65%
Self-Discharge 68°F(20℃)	Capacity after 3 month storage	90%
	Capacity after 6 month storage	80%
	Capacity after 12month storage	60%
Max. discharge current77°F(25℃): 1200A(5S)		
Charge (Constant Voltage)	Float：13.6～13.8 V/77° F/(25℃)	
	Cycle:14.4～14.7 V/77°F/(25℃) Max. Current：55A	

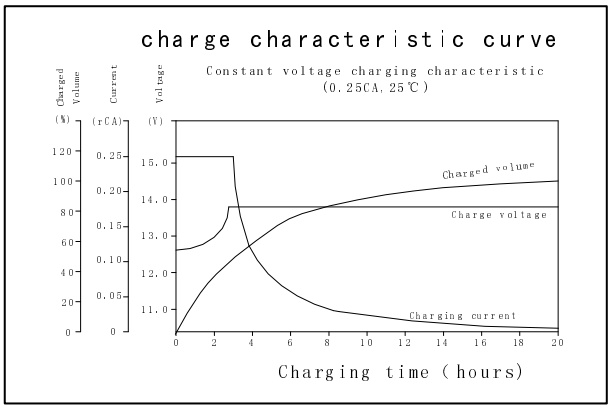
Discharge Constant Current (Amperes at 77° F25 ℃)

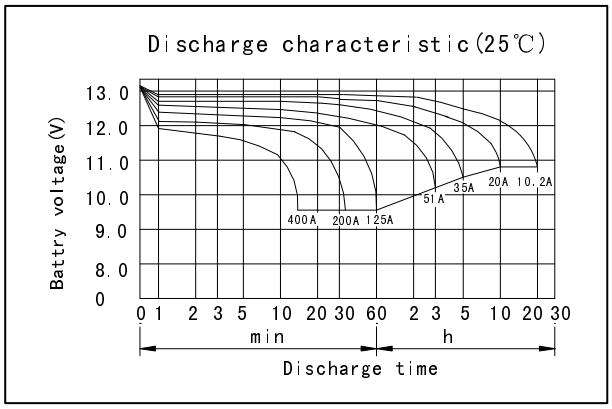
End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V		460	357	230	135	58.5	40.2	21.8	11.4
1.65V		442	345	223	132	57.8	39.9	21.7	11.4
1.70V		422	333	215	129	57.0	39.9	21.5	11.3
1.75V		400	320	207	125	56.2	39.0	21.3	11.2
1.80V		376	305	198	121	55.2	38.5	21.0	11.0

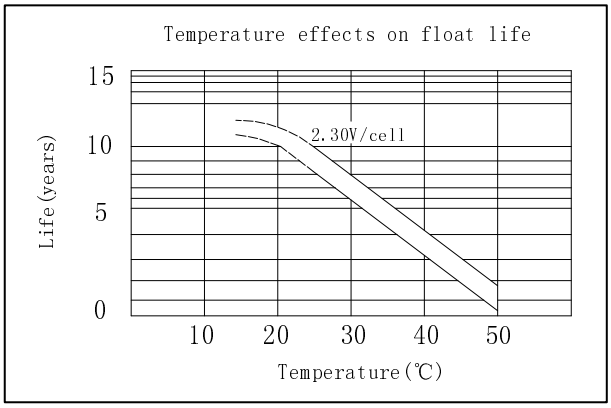
Discharge Constant Power (watts at 77° F 2 5℃)

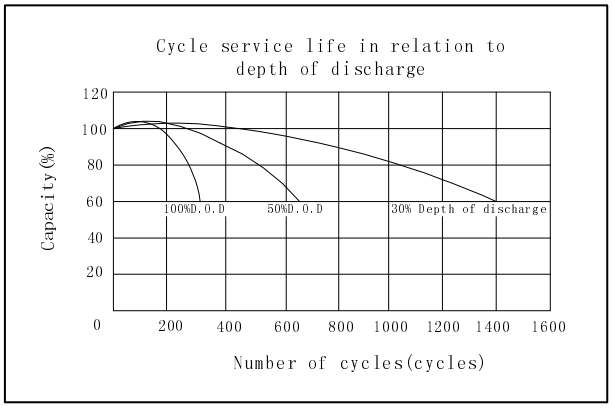
End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V		785	617	435	316	246	156	111	72.3
1.65V		762	601	424	309	241	152	108	71.7
1.70V		737	583	412	301	236	147	105	71.1
1.75V		710	564	400	293	230	141	102	70.6
1.80V		680	543	387	284	225	135	98.0	70.0

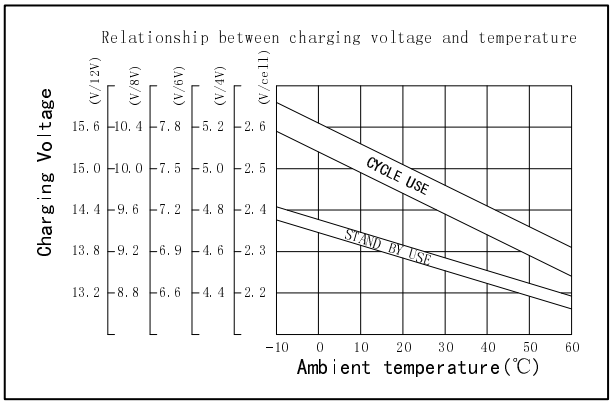
(Note)The above characteristics data are average values obtained Within three charge/discharge cycles not the minimum values.

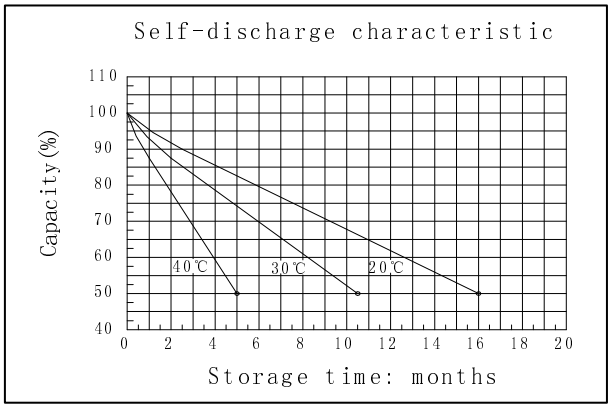

charge characteristic curve
Constant voltage charging characteristic
(0.25CA, 25℃)
Charged Volume (%)
Current (rCA)
Voltage (V)
Charged volume
Charge voltage
Charging current
Charging time (hours)

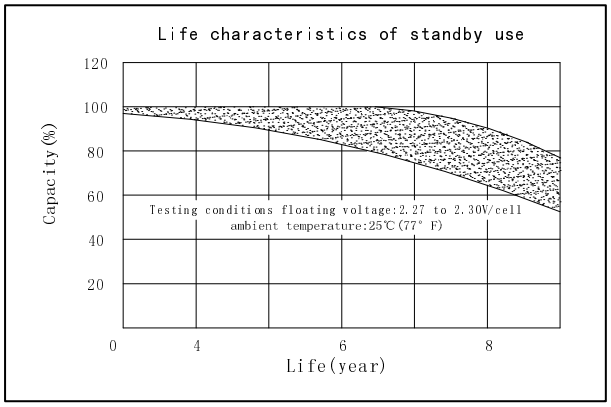

Discharge characteristic(25℃)
Battry voltage(V)
400A
200A
125A
51A
35A
20A
10.2A
min
h
Discharge time

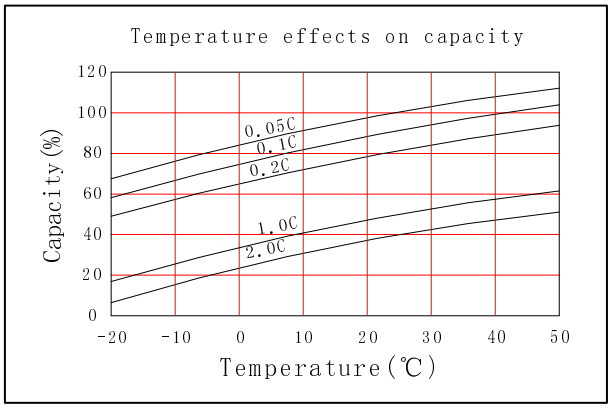

Temperature effects on float life
Life (years)
2.30V/cell
Temperature(℃)


Cycle service life in relation to
depth of discharge
Capacity(%)
100%D.O.D
50%D.O.D
30% Depth of discharge
Number of cycles(cycles)


Relationship between charging voltage and temperature
Charging Voltage
(V/12V)
(V/8V)
(V/6V)
(V/4V)
(V/cell)
CYCLE USE
STAND BY USE
Ambient temperature(℃)


Self-discharge characteristic
Capacity(%)
40℃
30℃
20℃
Storage time: months


Life characteristics of standby use
Capacity(%)
Testing conditions floating voltage:2.27 to 2.30V/cell
ambient temperature:25℃(77° F)
Life(year)


Temperature effects on capacity
Capacity(%)
0.05C
0.1C
0.2C
1.0C
2.0C
Temperature(℃)

ISO9001