TC12-200-G (12V200Ah/20hr)

Design Life: 12 years

Gel battery shows some distinctive advantages over flooded battery or AGM battery, such as super thermal stability, high deep discharge capability, good recovery from deep discharge , even if the battery is left discharged for three days, it will recover to 100% of capacity. With the above-mentioned advantages, the gel battery has long service life, specially suitable for motive power applications, such as golf trailer, sruubber, folklift,etc.The deep discharge cycles increased 50% as compared with the AGM battery.

Battery Construction

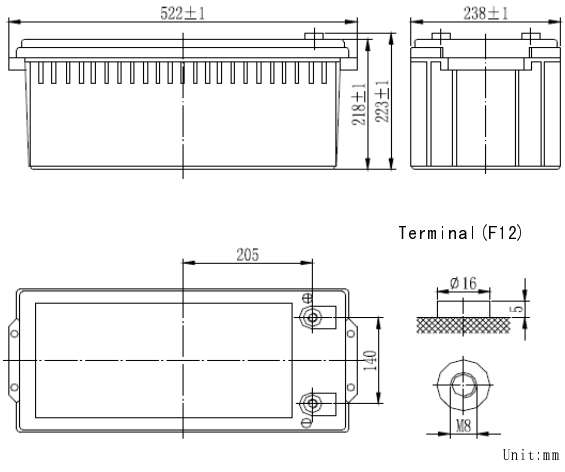
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	PVC	Gelled acid

General Feature

- Nanometer SiO_2 and H_2SO_4 gelled electrolyte technology for efficiency 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.
- UL-recognized component.
- 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.
- Case and cover avaiable in both standard and flame restardant ABS.

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) ····· 223/8.78
Approx. Weight (kg/lbs) ····· 61 Kg



Performance Characteristics

Capacity 77°F(25℃)	100 hour rate (2.2A、11.1V)	220Ah
	20 hour rate (10A、10.5V)	200Ah
	10 hour rate (18.4A 10.5V)	184Ah
	1 hour rate (118A、9.6V)	118Ah
Internal Resistance	Full charged Battery77°F(25℃):6mΩ	
Operating Temperature Range	Discharge：-20～60℃	
	Charge：-10～60℃	
	Storage：-20～60℃	
Self-Discharge 3% of capacity declined per month at 20℃(average)		
Max. discharge current77°F(25℃): 1000A(5S)		
Charge (Constant Voltage)	Float：13.38～13.68 V/77° F/(25℃)	
	Cycle:14.28～14.52 V/77°F/(25℃) Max. Current：50A	

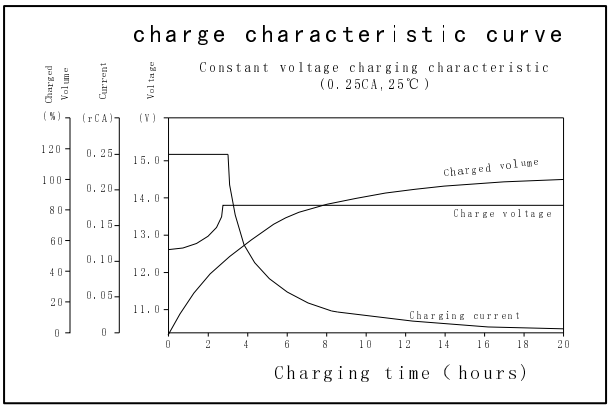
Discharge Constant Current (Amperes at 77° F25 ℃)

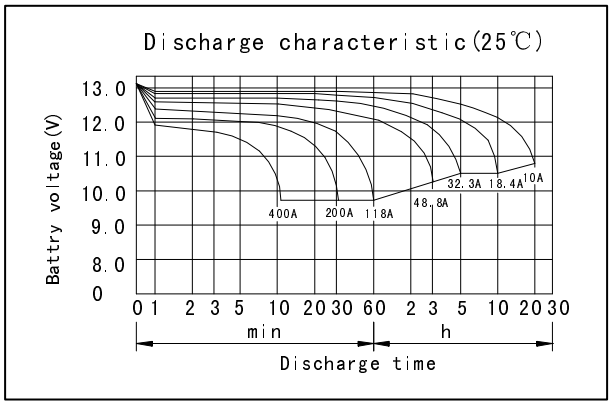
End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V		405	321	198	118	50.3	34.1	18.8	10.3
1.65V		372	302	188	116	49.6	33.6	18.7	10.2
1.70V		352	286	182	114	48.8	32.9	18.5	10.1
1.75V		330	266	175	112	47.9	32.3	18.4	10.0
1.80V		306	248	168	110	47.0	31.8	17.8	9.95

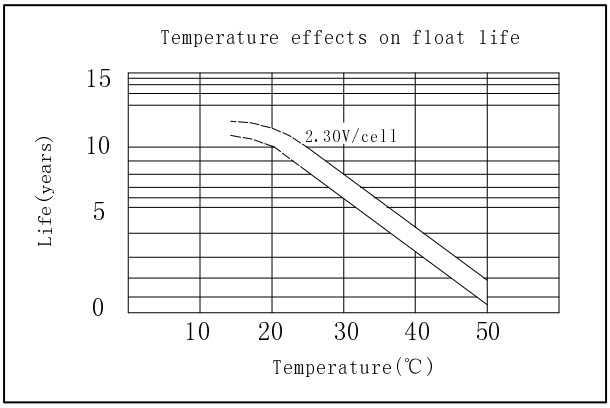
Discharge Constant Power (watts at 77° F 25 ℃)

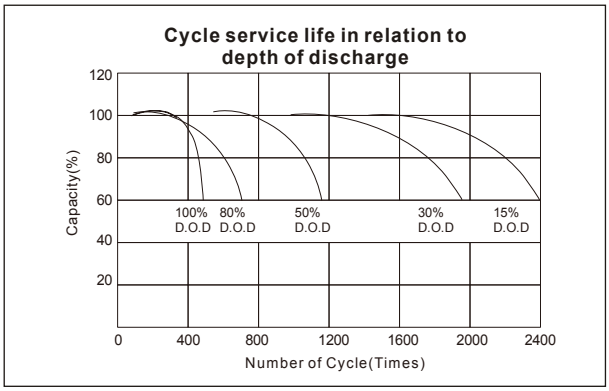
End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V		670	539	356	256	220	127	93.9	68.0
1.65V		640	526	345	252	215	124	92.7	67.6
1.70V		608	511	332	247	210	122	91.4	67.2
1.75V		580	495	319	243	206	119	90.5	66.6
1.80V		551	466	308	229	201	116	89.5	66.1

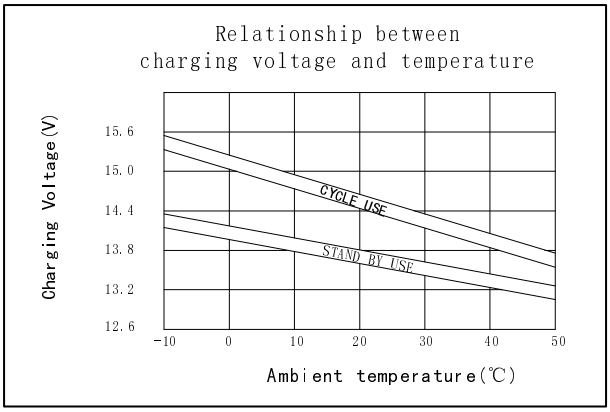
(Note)The above characteristics data are average values obtained Within three charge/discharge cycles not the minimum values.

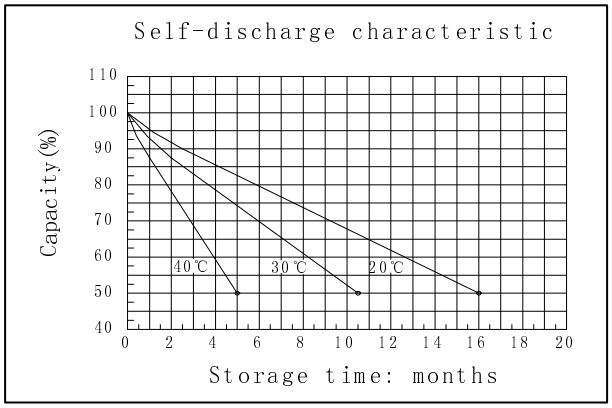

charge characteristic curve
Constant voltage charging characteristic
(0.25CA,25℃)
Charged Volume
Current
Voltage
(%)
(rCA)
(V)
Charged volume
Charge voltage
Charging current
Charging time (hours)

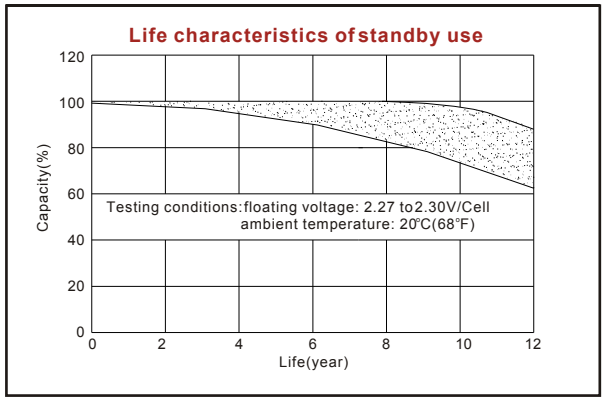

Discharge characteristic(25℃)
Battry voltage(V)
400A
200A
118A
48.8A
32.3A
18.4A
10A
min
h
Discharge time

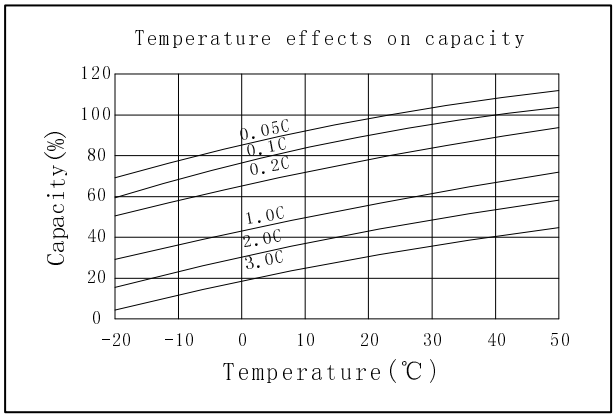

Temperature effects on float life
Life(years)
2.30V/cell
Temperature(℃)


Cycle service life in relation to
depth of discharge
Capacity(%)
100% D.O.D
80% D.O.D
50% D.O.D
30% D.O.D
15% D.O.D
Number of Cycle(Times)


Relationship between
charging voltage and temperature
Charging Voltage(V)
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 to2.30V/Cell
ambient temperature: 20℃(68℉)
Life(year)


Temperature effects on capacity
Capacity(%)
0.05C
0.1C
0.2C
1.0C
2.0C
3.0C
Temperature(℃)