

Overview

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special oneway 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

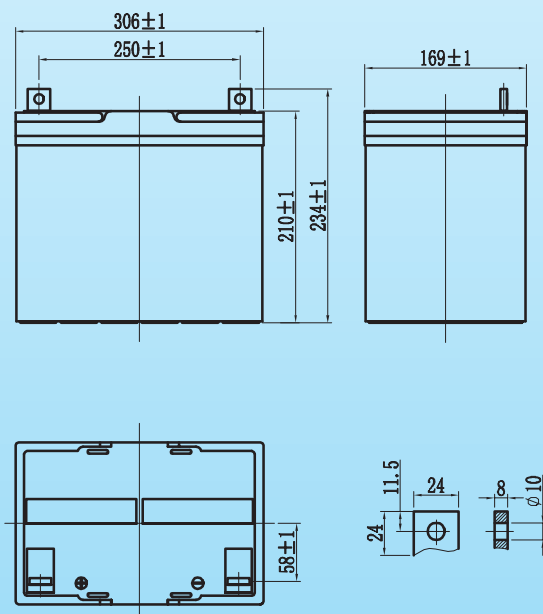
General Features

- 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.
- 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 available in both standard and flame retardant ABS.

Dimensions and Weight

Length(mm / inch)	306/12.05
Width(mm / inch)	169/6.65
Height(mm / inch)	210/8.27
Total Height(mm / inch)	234/ 9.21
Approx. Weight(Kg / lbs)	30/ 66.1

* Weight deviation: $\pm 5\%$



Battery Specification

Performance Characteristics	
Nominal Voltage	12V
Number of cell	6
Design Life	10 years
Nominal Capacity 77°F(25°C)	
10 hour rate (8.86A, 10.8V)	88.6Ah
5 hour rate (16.1A, 10.5V)	80.5Ah
1 hour rate (61.1A, 9.6V)	61.1Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	5.2 mOhms
Self-Discharge	
3% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	800A(5s)
Short Circuit Current	2000A
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	14.4~14.7V
Maximum charging current	27.0A
Temperature compensation	-30mV/°C
Standby use	13.6~13.8V
Temperature compensation	-20mV/°C

Discharge Constant Current (Amperes at 77°F25°C)

End Point								
Volts/Cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	210	168	97.6	73.2	61.1	26.7	17.1	8.98
1.65V	200	157	92.7	70.1	55.8	25.7	16.9	8.96
1.70V	179	149	87.8	66.6	55.2	24.8	16.6	8.93
1.75V	168	138	85.2	64.2	53.8	24.0	16.1	8.90
1.80V	157	128	82.1	61.8	51.6	22.9	15.6	8.86

Discharge Constant Power (Watts at 77°F25°C)

End Point								
Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	359	299	184	142	115	64.7	47.8	32.1
1.65V	350	294	176	136	110	63.3	47.7	31.7
1.70V	332	276	167	126	105	61.0	46.3	31.3
1.75V	330	273	163	125	101	59.0	45.0	30.5
1.80V	302	259	159	123	99.5	58.3	44.8	30.1

(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values. All data shall be changed without notice, Vision reserves the right to explain and update the information contained hereinto.

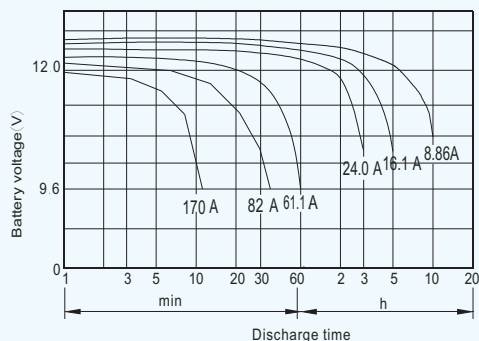


VISION GROUP
Shenzhen Center Power
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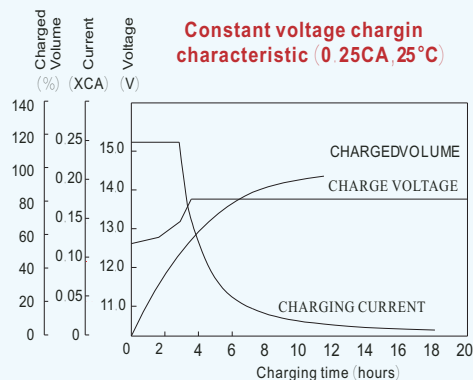
6FM90TD

12V 88.6Ah(10hr)

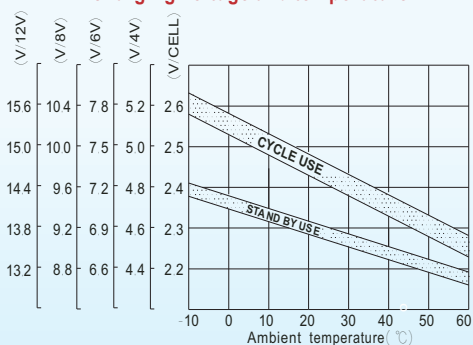
Discharge characteristic (25°C)



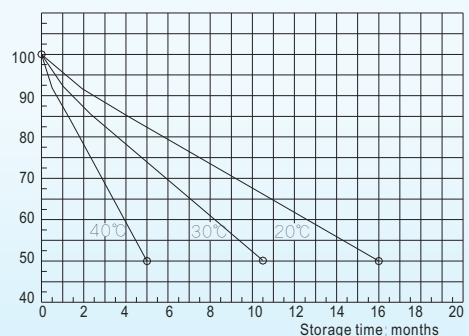
**Constant voltage charge
characteristic (0.25CA, 25°C)**



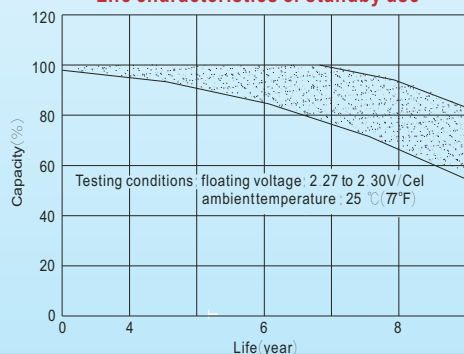
**Relationship between
charging voltage and temperature**



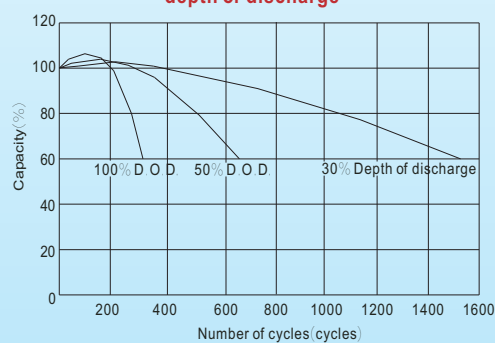
Self-discharge characteristic



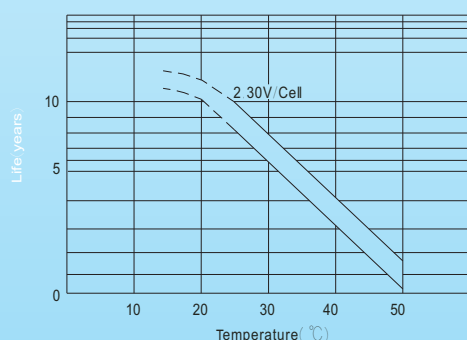
Life characteristics of standby use



**Cycle service life in relation to
depth of discharge**



Temperature effects on float life



Temperature effects on capacity

