GPF180-12 12V180AH
Rechargeable Valve Regulated lead-Acid Battery

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

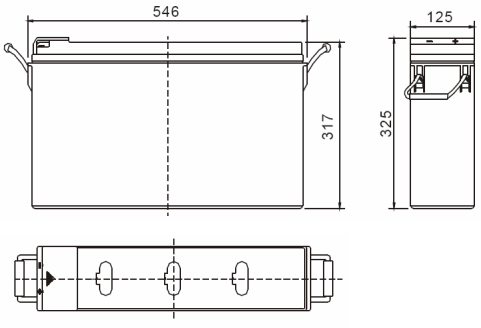
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

General Feature

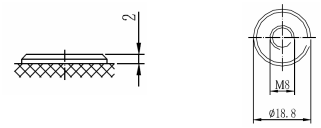
- Absorbent Glass Mat(AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed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

SPECIFICATION

Nominal voltage ····· 12V
Number of cell ····· 6
Length(mm/inch) ····· 546/21.5
Width(mm/inch ····· 125/4.92
Height(mm/inch) ····· 317/12.5
Total Height(mm/inch) ····· 325/12.8
Approx. Weight (kg/lbs) ····· 57/125.6



Terminal (F12)



Performance Characteristics

Capacity 77°F(25℃)	20 hour rate (9.5A、10.8V)	190Ah
	10 hour rate (18A、10.8V)	180Ah
	5 hour rate (32A、10.5V)	160Ah
	1 hour rate (118A、9.6V)	118Ah
Internal Resistance	Full charged Battery77°F(25℃)： 4mΩ	
Capacity affected by Temperature (10 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℃): 1000A(5S)		
Charge (Constant Voltage)	Float：13.6～13.8 V/77° F/(25℃)	
	Cycle:14.4～14.7 V/77°F/(25℃) Max. Current：45A	

Discharge Constant Current (Amperes at 77° F25 ℃)

End Point Volts/Cell	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60V	395	310	195	143	118	49.5	32.7	18.3	9.70
1.65V	375	295	190	140	116	49.0	32.5	18.3	9.70
1.70V	355	280	185	137	113	48.5	32.3	18.2	9.65
1.75V	335	264	170	134	110	47.5	32.0	18.1	9.60
1.80V	310	246	164	130	107	46.0	31.7	18.0	9.50

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

End Point Volts/Cell		10min	15min	30min	45min	1h	2h	3h	5h
1.60V		675	530	355	280	222	134	96.0	65.0
1.65V		645	508	345	274	218	132	95.0	64.5
1.70V		615	485	335	268	214	130	94.0	64.0
1.75V		585	463	324	262	209	128	93.0	63.5
1.80V		550	440	312	254	205	125	92.0	62.8

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

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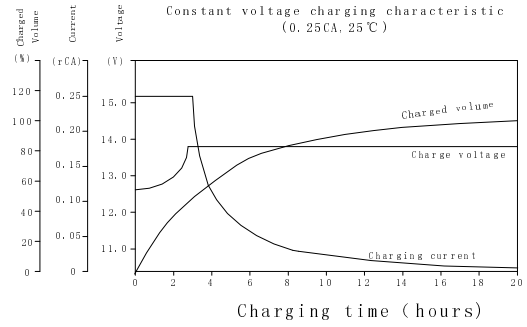
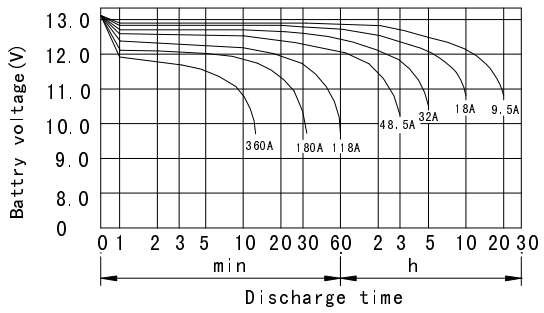
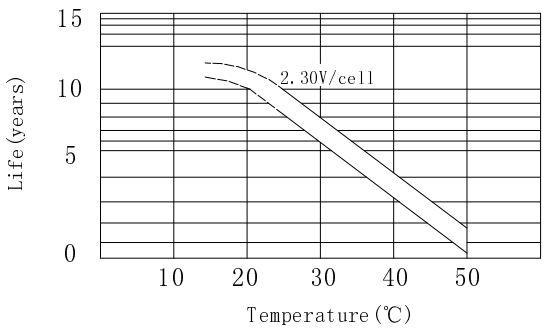
charge characteristic curve



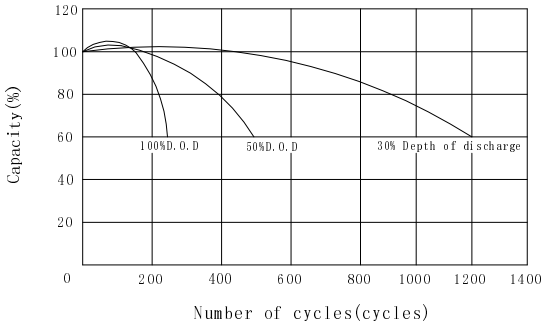
Discharge characteristic(25℃)



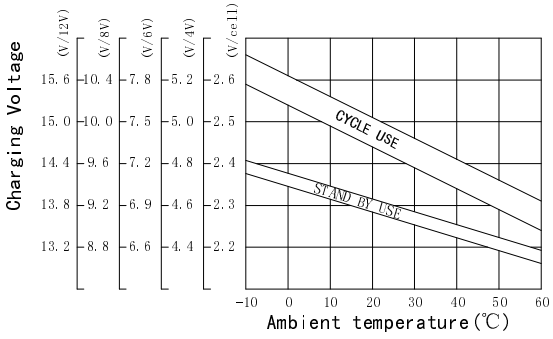
Temperature effects on float life



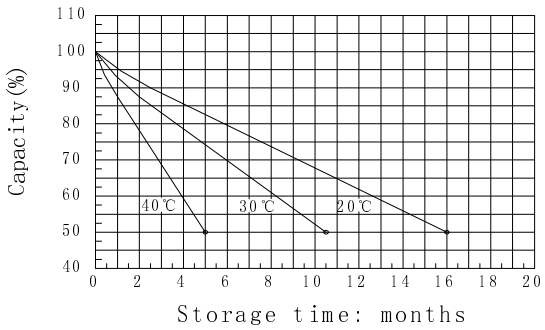
Cycle service life in relation to depth of discharge



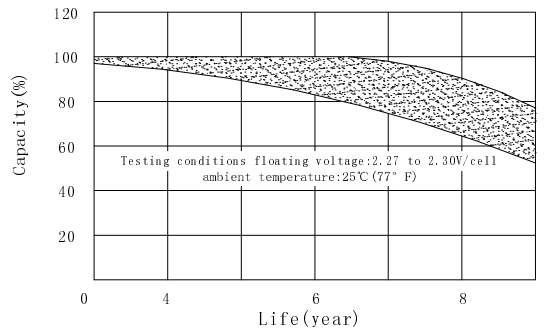
Relationship between charging voltage and temperature



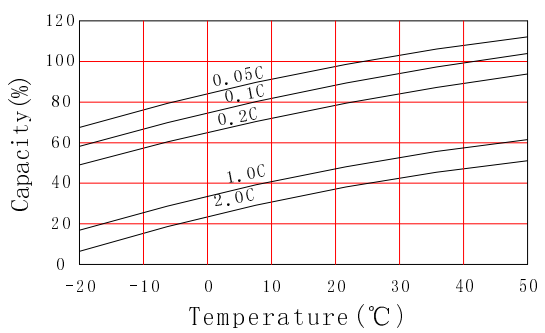
Self-discharge characteristic



Life characteristics of standby use



Temperature effects on capacity



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