YANGTZE SOLAR

Yangtze Solar Power Co.,Ltd

6-GFM-150Ah Valve-regulated Lead Acid Battery Specification

We are an ISO9001 certified organization. And the products are approved by CE & UL. The nominal voltage of this series is 12V. And the capacityranges from 33Ah to 250Ah. Their typical applications include: emergency lighting systems, electricity power supply systems, communication systems, UPS systems, starting systems,solar systems etc.

Battery Construction

Component	Material
Positive plate	Lead dioxide
Negative plate	Lead
Container	ABS
Cover	ABS
Safety valve	Rubber
Terminal	Copper
Separator	AGM glass
Electrolyte	Sulfuric acid

General Features

Maintenance free
Convenient for installation
Safety and no leakage
Excellent recharge and discharge performance
Low self-discharge rate,charge each standby 6 months, temperature 25℃
Adapt to high or low temperature
Good deep discharge performance
Longer cycle life
UL approval

Performance Characteristics

1.Dimension and weight

Length	486mm
Width	171mm
Height	241mm
Total Height	241mm
Reference Weight	43kg

2.Functional Parameter

Rated Voltage	12V
Numbers of cells	6 Cells
Designed Life	5~8 Years

3.Rated Capacity at 25℃（77° F）

10 hr rate（0.1C，10.8V）	150Ah
3 hr rate（0.25C，10.8V）	115Ah
1 hr rate（0.55C，10.5V）	82.8Ah

4.Capacity affected by Temperature（10hour rate）

40 ℃ (104° F)	103%
25 ℃ (77° F)	100%
0 ℃ (32° F)	85%
-15℃ (5° F)	65%

5.Charge Method: constant-voltage charging at 25℃（77° F）

Cyclic use	14.4~14.9V
Maximum charging current	37.5A
Temperature Compensation	-30mV/℃
Float Use	13.6~13.8V
Temperature Compensation	-20mV/℃

6.Environment Temperature Requirements

Discharge Temperature	-15~50℃
Charge Temperature	0~40℃
Storage Temperature	-15~40℃

7.Inner Resistance&Max. Discharge Current

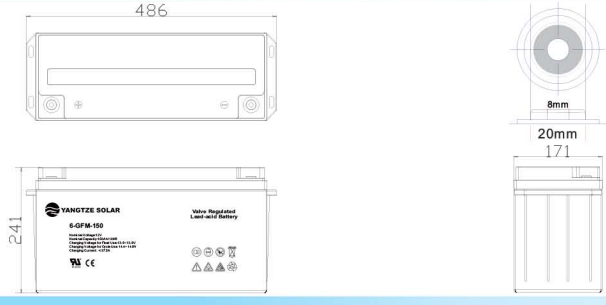
A fully charged battery at 25℃（77° F）	3.5mΩ
Max. Discharge Current	2250A (5s)
Short Circuit Current	7500A

8.Self-discharge

3% Of the capacity per month at 25℃（77° F）

Capacity after 3 month storage	91%
Capacity after 6 month storage	82%
Capacity after 12 month storage	64%

Dimensions（mm）



3D Model Review

Constant-current discharge parameter Unit: A（25℃）

F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/cell	344.7	257.8	207.3	169.7	134.7	100.5	79.2	38.3	25.2	15.0	7.8
1.75V/cell	388.5	283.3	226.5	182.5	139.8	104.2	82.8	39.0	25.8	15.2	7.9
1.70V/cell	427.8	308.8	241.8	191.8	145.5	108.3	85.5	40.2	26.5	15.3	8.0
1.65V/cell	471.8	333.3	257.2	203.8	153.5	111.2	88.3	41.8	27.2	15.6	8.1
1.60V/cell	520.3	361.8	275.0	217.2	162.0	115.8	91.5	43.2	28.2	15.8	8.2

Constant-current discharge parameter Unit: W（25℃）

F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/cell	623.3	470.8	381.8	315.2	252.7	191.5	152.0	74.3	49.2	29.7	15.4
1.75V/cell	687.8	509.0	411.8	335.8	260.2	196.8	158.3	75.3	50.3	29.8	15.6
1.70V/cell	736.5	542.2	433.7	350.3	269.3	204.0	162.7	77.3	51.5	30.2	15.9
1.65V/cell	800.7	579.8	457.5	369.3	281.8	207.2	167.0	80.2	52.7	30.7	16.0
1.60V/cell	862.7	615.2	481.2	389.2	295.3	214.8	172.0	82.3	54.2	31.0	16.1

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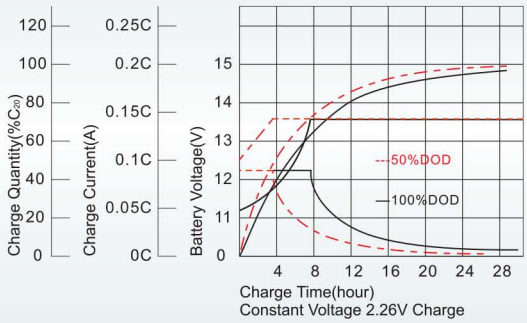
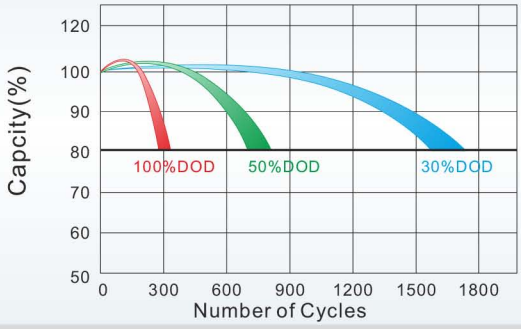
Charge Characteristics for Float Use @ 25°C/77°F

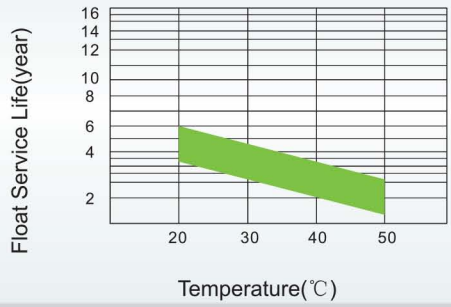


Discharge Characteristics at Various Rates @ 25°C/77°F

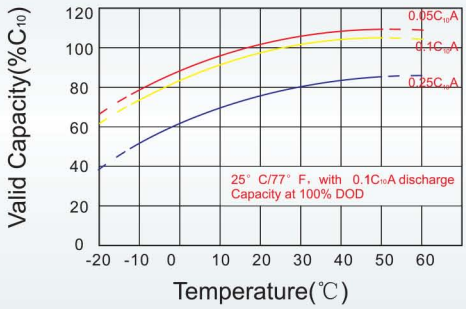
Cycle Life in Relation to Depth of Discharge



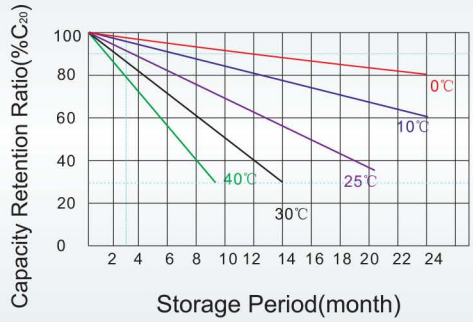
Float Service Life



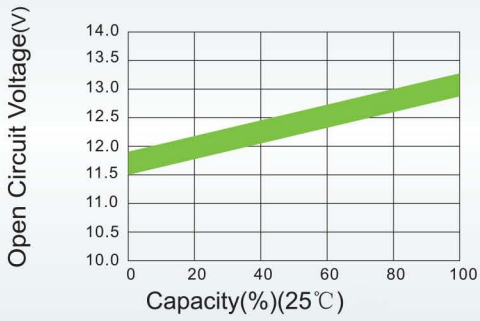
Temperature and Valid Capacity



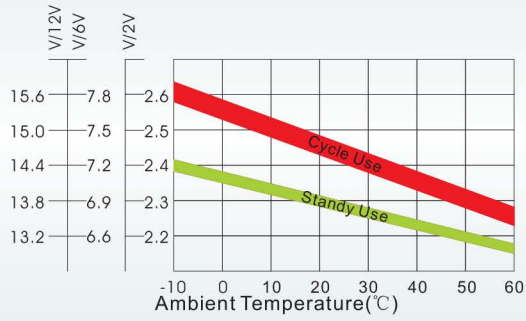
Self Discharge Charecteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature



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