

Deep Cycle Long Life AGM Battery

DC12-20

CSBattery DC series deep cycle long life VRLA AGM battery uses a different chemistry additives in the positive plates and special AGM separators. The DC series features 70% higher cyclic life with 15 years of float life when compared to the standard Duration range. This series is highly suited for very unreliable power applications requiring the batteries to provide extra cyclic life performance such as PV system applications, small RE systems and electric vehicles.

12V 20Ah AGM Technology Deep Cycle



COMPLIED STANDARDS
IEC 60896-21/22 JIS C8704
YD/T759 ISO9001
GB/T 19638 CE

Applications

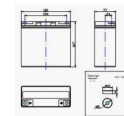
- Solar Systems
- Wheel chairs, Golf Cart
- Telecom systems
- Cable TV Systems
- Emergency Power System

General Features

- Thicker plate with high Tin low Calcium alloy
- High Reliability and Good Quality
- Deep Discharge Recovery
- High Power Density
- Longer Service Life, in both Float or Cyclic

Dimensions & Weight

Length(mm)	181 ± 1
Width(mm)	77 ± 1
Height(mm)	167 ± 1
Total Height(mm)	167 ± 1
Weight(kg)	6.1 ± 0%



Technical Specifications

Nominal Voltage	12V(6 cells per unit)	
	Design Floating Life @25°C	12 Years
Nominal Capacity @25°C (20 hour rate)(1.0A,10.0V)	20Ah	
	10hour rate (1.8A,10.0V)	18Ah
Capacity @25°C	5 hour rate (3.2A,10.0V)	16Ah
	1 hour rate (11.1A,9.6V)	11.1Ah
Internal Resistance	Full Charged Battery @25°C	≤12 mΩ
	Discharge	-15°C~45°C
Ambient Temperature	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max Discharge Current @25°C	Discharge	120A(5s)
	Storage	120A(5s)
Capacity affected by Temperature (10 hour)	40°C	105%
	25°C	100%
Self-Discharge @25°C (per Month)	0°C	85%
	-15°C	65%
Charge (Constant Voltage) @25°C	Standby Use	Initial Charging Current Less than 5.4A Voltage: 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 5.4A Voltage: 14.1-14.9V

Battery Discharge Table

Discharge Constant Current per Cell (Ampere at 25°C)

Ex/Time	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	10.3	23.7	16.4	12.1	11.1	7.0	5.9	3.4	2.2	2.0	1.1
1.65V	29.7	25.3	16.1	13.9	10.9	6.9	4.9	3.3	2.2	1.9	1.08
1.70V	29.2	24.8	15.8	13.6	10.7	6.8	4.8	3.2	2.1	1.9	1.06
1.75V	28.6	24.3	15.5	13.4	10.5	6.7	4.7	3.2	2.1	1.9	1.04
1.80V	27.5	23.4	14.9	13.0	10.1	6.4	4.5	3.1	2.0	1.8	1.00

Discharge Constant Power per Cell (Watts at 25°C)

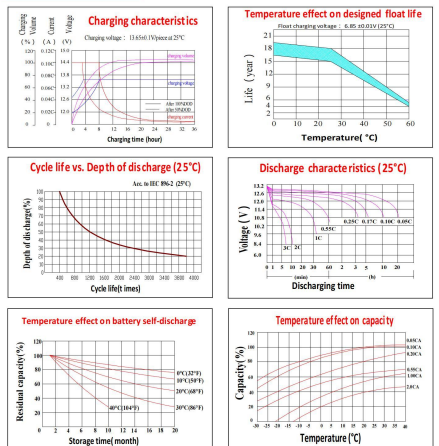
Ex/Time	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	18.3	49.5	31.6	23.3	21.3	13.6	9.5	6.5	4.3	3.8	2.1
1.65V	57.3	48.6	31.1	22.8	21.0	13.3	9.4	6.4	4.2	3.7	2.1
1.70V	56.2	47.7	30.5	22.4	20.6	13.1	9.2	6.2	4.1	3.7	2.0
1.75V	55.1	46.8	29.9	22.0	20.2	12.8	9.0	6.1	4.0	3.6	2.0
1.80V	53.0	45.0	28.8	21.1	19.4	12.3	8.7	5.9	3.9	3.5	1.9

Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery design/specifications are subject to modification without notice. Contact: CSBattery for the latest information.

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Performance Characteristics



Battery Construction

Component	Positive plate	Negative plate	Container & Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	Fire resistance ABS UL94 V0	Flame Retardant and aging resistance	Female Copper Inset (M10 torque 10~12N.m)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal