

Durable Battery **Choose CSBattery**



Fast Charge Deep Cycle Lead-Carbon Battery HDC12-30

HDC series lead-carbon batteries use functional activated carbon and graphene as carbon materials, which are added to the negative plate of the battery to make lead carbon batteries have the advantages of both lead-acid batteries and super capacitors. It not only improves the ability of rapid charge and discharge, but also greatly prolongs the battery life. It is more suitable for the application of PSOC.

- 12V 30Ah
- Lead Carbon Technology
- Deep Cycle



COMPLIED STANDARDS
IEC 60869-21-22 IEC 60704 YD/T799
GB2796 zmk4 GB/T 19638 UL 1989

General Features

- Combine the characteristics of lead acid battery and super capacitor
- Long life cycle service design, excellent PSOC and cyclic performance
- High power, rapid charging and discharging
- Unibor grid and lead pasting design
- Extreme temperature tolerance
- Able to operate at 30°C~60°C
- Deep Discharge recovery capability

Applications

- Home Energy storage system
- Smart Power grid system
- Solar & Wind Power system
- Wheel chair, Golf Car
- Telecom systems
- BTS Stations
- Micro-grid system

Technical Specifications

Nominal Voltage		12V (6 cells per unit)
Design Floating Life @25°C		20 Years
Nominal Capacity @25°C (20 hour rate) 1.65A, 10.50V		30.0Ah
Capacity @25°C	10 hour rate (2.78A, 10.5V)	27.0Ah
	8 hour rate (3.20A, 10.5V)	26.0Ah
	5 hour rate (3.96A, 10.5V)	18.0Ah
Internal Resistance	Full Charged Battery@25°C	≤11.0mΩ
	Ambient Temperature	Discharge: -30°C~60°C Charge: -30°C~60°C Storage: -30°C~60°C
Max. Discharge Current@25°C		300A(5s)
	Capacity affected by Temperature (10 to Capacity)	40°C: 100% 20°C: 100% 0°C: 90% -15°C: 70%
Self-Discharge@25°C per Month		3%
Charge (Constant Voltage) @25°C	Standby Use	Initial Charging Current Less than 0.0A Voltage 13.8-9.0V
	Cycle Use	Initial Charging Current Less than 0.0A Voltage 14.4-14.7V

Dimensions & Weight

Length(mm)	196±1
Width(mm)	136±1
Height(mm)	156±1
Total Height(mm)	167±1
Weight(kg)	18.2±2%
	15.2±2%

Battery Discharge Table

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

V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	20h
1.80V	31.0	25.0	18.2	13.6	11.2	10.1	9.2	8.4	7.6	6.8	6.0	5.2	4.4	3.6	3.0	2.2	1.0
1.65V	80.1	51.1	43.4	35.4	31.2	27.7	24.5	22.2	20.4	17.7	14.3	11.2	7.9	6.4	4.5	4.0	1.56
1.47V	79.2	29.6	25.9	21.8	20.2	20.5	21.3	22.1	20.1	17.5	14.2	11.1	7.8	6.4	5.1	4.8	1.35
1.70V	77.2	29.6	29.1	34.2	35.1	37.0	39.9	41.8	41.9	42.9	43.9	44.8	45.3	44.4	39.9	35.9	11.33
1.70V	77.1	40.1	41.8	33.8	29.2	26.7	23.6	21.5	19.6	17.0	13.8	10.8	7.6	6.2	5.2	4.3	1.50
1.80V	74.2	27.6	40.3	33.1	29.1	25.3	22.4	20.3	19.1	16.5	13.1	10.4	7.3	5.9	5.0	4.2	1.24

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

V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	20h				
1.80V	153.9	98.1	83.3	68.2	60.4	54.0	47.7	43.4	39.8	34.6	27.9	22.0	15.5	12.6	10.5	8.8	7.7	6.9	5.8	3.09	
1.65V	150.7	96.0	80.3	67.4	59.5	52.9	46.8	42.4	39.2	34.0	27.4	21.6	15.4	12.4	10.3	8.6	7.6	6.8	5.8	4.2	3.06
1.47V	149.0	95.8	81.5	66.7	59.1	52.7	46.6	42.4	39.2	34.0	27.4	21.6	15.4	12.4	10.3	8.6	7.6	6.8	5.7	4.8	3.02
1.70V	148.2	94.4	80.2	65.4	58.0	51.7	45.9	41.7	38.4	33.0	26.7	21.2	14.9	12.2	10.1	8.5	7.5	6.7	5.6	4.7	3.03
1.70V	147.4	94.6	79.7	64.6	57.2	51.2	45.3	41.1	37.7	32.4	26.4	20.8	14.5	12.0	9.9	8.4	7.4	6.6	5.5	4.7	2.97
1.80V	145.1	93.0	77.3	63.4	55.7	49.6	44.0	40.1	36.6	31.7	25.6	20.0	14.1	11.4	9.4	8.1	7.0	6.3	5.4	4.5	2.88

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.

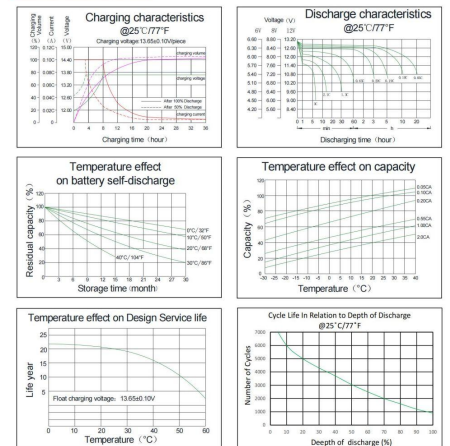
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Performance Characteristics



Battery Discharge Capacity

Model	Long time discharge capacity for Offer Grid solar/wind application						
	Capacity	C20(Ah)	C48(Ah)	C72(Ah)	C100(Ah)	C120(Ah)	C240(Ah)
HDC12-30		30.00	30.80	31.60	32.40	33.27	34.14

F.V=1.75VPC

Add: Building Evolution, Xinglong Industry Park, NO.61, Luxian 2nd Road, Baoan, Shenzhen, China.

Tel: +86-755-29123661. Email: Sales@CSBattery.cn, support@CSBattery.cn

Website: www.CSBattery.cn

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