

## Fast Charge Deep Cycle Lead-Carbon Battery

### Brief Introduction

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.



### Complied Standards

IEC60896-21/22	BS6290part4
JISC8704	GB/T19638
IEC61427	CE/ISO

### Applications

Solar Energy System, Off-Grid Solar System

BTS Stations

Wind Energy System, Pump

UPS System, EPS System

Wheel chair, Golf Car, Sweeper

Telecom System, BT Tower

Home Energy storage system

Micro-grid system

### General features

Able to operate at -30~60°C

DOD 50% 3000 times Cycles

Combine the characteristics of lead acid battery and super capacitor

Long life cycle service design, excellent PSOC and cyclic performance

Use super-C additives:  
Deep discharge recovery capability

### Battery Construction

Component	Positive plate	Negative plate	Container & Cover	Safety valve
Features	Thick high Sn low Ca grid with Special paste	Balanced Pb-Ca grid for improved recombination efficiency	Fire resistance ABS (UL94-V0 optional)	Flame Si-Rubber and aging resistance
Component	Terminal	Separator	Electrolyte	Pillar seal
Features	Female Copper Insert T/AP/DP	Advanced PVC/AGM separator for high pressure cell design	German Evonik Silicon GEL	Two layers epoxy resin seal

### Technical Specifications

Nominal Voltage	12V/6V	
Design Floating Life @25°C	20 Years	
Nominal Capacity @25°C (20 hour rate @10.50V)	100% C (Ah)	
	10hour rate (1.8V) 92.8% C (Ah)	
Capacity @25°C	5 hour rate (1.8V) 86% C (Ah)	
	1 hour rate (1.75V) 60% C (Ah)	
Internal Resistance	Full Charged Battery @25°C	≤3.40(mΩ)
	Discharge	-30°C~60°C
Ambient Temperature	Charge	-30°C~60°C
	Storage	-30°C~45°C
Max. Discharge Current @25°C		2000A (5s)
	40°C	108%
Capacity affected by Temperature (10 hour)	25°C	100%
	0°C	90%
	-15°C	70%
Self-Discharge @25°C per Month		3%
	Standby Use	Initial Charging Current Less than 50.0A Voltage 13.6-13.8V
Charge (Constant Voltage) @25°C	Cycle Use	Initial Charging Current Less than 50A Voltage 14.4-14.7V

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### HDC 6V Battery Items specifications

Model	Nominal Voltage (V)	Capacity (Ah)	Dimension (mm)				Net Weight kgs	Gross Weight kgs	Terminal
			Length	Width	Height	Total Height			
HDC6-200	6	200	306	168	220	226	31	31.5	T5
HDC6-205	6	205	260	180	246	252	30	30.5	T5
HDC6-225	6	225	243	187	275	275	32.5	33	T5
HDC6-230	6	230	260	180	265	272	34.2	34.7	T5
HDC6-280	6	280	295	178	346	350	45.8	46.3	T5
HDC6-300	6	300	295	178	346	350	46.5	47	T5
HDC6-340	6	340	295	178	404	408	55	55.5	T5
HDC6-380	6	380	295	178	404	408	57.2	57.7	T5

### HDC 12V Battery Items specifications

Model	Nominal Voltage (V)	Capacity (Ah)	Dimension (mm)				Net Weight kgs	Gross Weight kgs	Terminal
			Length	Width	Height	Total Height			
HDC12-20	12	20	166	175	126	126	8.35	8.85	T2
HDC12-24	12	24	165	126	174	174	8.6	9.1	T2
HDC12-30	12	30	196	130	155	167	10.2	10.7	T3
HDC12-35	12	35	198	166	174	174	14	14.5	T2
HDC12-50	12	50	229	138	208	212	17.7	18.2	T3
HDC12-60	12	60	350	167	178	178	23	23.5	T3
HDC12-75	12	75	260	169	211	215	26	26.5	T3
HDC12-90	12	90	307	169	211	215	30	30.5	T3
HDC12-100	12	100	331	176	215	219	33	33.5	T4
HDC12-110	12	110	407	174	208	233	39	39.5	T5
HDC12-120	12	120	341	173	283	287	40.5	41	T5
HDC12-135	12	135	484	171	241	241	45.5	46	T4
HDC12-180	12	180	532	206	215	219	58.5	59	T4
HDC12-200	12	200	522	240	219	223	64.8	65.3	T5
HDC12-220	12	220	520	268	203	207	70.8	71.3	T5
HDC12-250	12	250	520	268	220	224	77.5	78	T5

### Performance Characteristics

