

Specifications	
Nominal Voltage	12V
Nominal Operating Range	25°C ± 5°C
Dimensions	Length : 522 mm
	Width : 240 mm
	Total Height : 222 mm
Weight	61,5 Kg
Int. Resistance (25 °C)	4,0 mΩ
Float Service Lifetime	15 years
Container Material	A.B.S. UL94-HB (UL94-V0 Optional).

Compliant Standards
IEC 60896-21/22:2004
BS 6290-3/4
IEC 62485-2
IEC 61427
Eurobat Guide 2015 classification : Very Long Life (>12 years)

Characteristics	
Capacity 25°C	260,0 AH 100HR (1.85V)
	202,0 AH 10HR (1.80V)
Charging Voltage (25 °C)	Float use : 13,5 to 13,8 VDC
	Cycle Use : 14,4 to 15,0 VDC
Max Charging Current	50A (recomm. 20A)
Self-Discharge (25°C)	less than 3% per month
Short Circuit Current	3.000A
Operating Temperature Range	Discharge : -20 to +50°C
	Charge : -20 to +50°C
	Storage : -20 to +50°C

Applications
On/Off – Grid & Hybrid Energy Storage Systems
Distributed infrastructure / mobile telecoms & utilities
UPS-EPS / Traffic Lights / Emergency lighting
Power smoothing / load shifting / ramp control
Marine Signaling / Service applications

## Technology

**NORTHBATT LC Lead - Carbon** series is the latest product in the **NORTHBATT** Solar battery family. This product has been specially designed for Renewable Energy Sources such as solar and wind power storage system, based on international advanced lead-carbon technology. Grid alloy and structure, active material formula, battery case material and electrolyte compositions are optimized by high specific surface area Carbon materials with high electric conductivity and dispersibility to active material, improving utilizing rate, protect negative plate effectively and restrain the growth of lead sulfate crystallization. **NORTHBATT LC** series is mixture of Lead-acid battery and super capacitor, providing not only high energy density, but also high power, rapid charge and discharge as well as longer cycle life.

## Features & Benefits

- Adopt lead carbon technology, combine the advantage of lead -acid battery and supercapacitor.
- Reduce the cathode sulphation, ideal for PSOC cycle application. More than 3000 cycles at 50% D.o.D.
- Multiple plate grid alloy and special grid structure, extended battery life
- Improve the conductivity of the plates, reduce battery internal resistance, improve the battery discharge performance.
- Increase the specific surface area of negative plate, improve the reaction efficiency of the active substance.
- Restrain the grow-up of lead sulfate of lead sulfate, no negative plate sulfation when battery is used.
- Unique plates elongation resistance structure, solve the problem of plates creep elongation.
- 15 years design life.
- Superior PSOC cycling performance, excellent deep cycling profile, very fast charging time, reduced charging time by 50%.

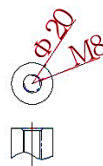
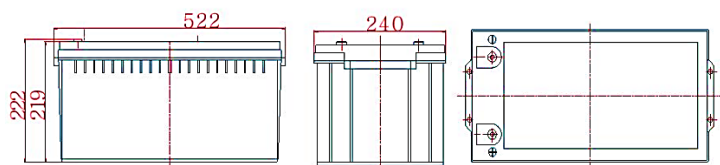
## Constant Current Discharge Table : Amperes (25°C)

[A]	TIME - AMPERE CONSTANT CURRENT DISCHARGE (25 °C)									
	F.V	10min	15min	30min	1h	3h	5h	10h	20h	100h
	1.65V	428,38	352,22	211,21	123,43	55,25	38,08	21,01	11,01	.....
	1.70V	394,34	329,90	201,92	118,18	53,74	37,07	20,71	10,91	.....
	1.75V	361,01	306,97	191,01	114,55	52,12	36,16	20,51	10,81	.....
	1.80V	334,95	289,09	185,76	109,49	51,52	35,15	20,20	10,71	2,63
	1.85V	276,36	239,90	157,27	96,36	45,25	32,02	18,59	10,30	2,60

## Constant Power Discharge Table : Watts/cell (25°C)

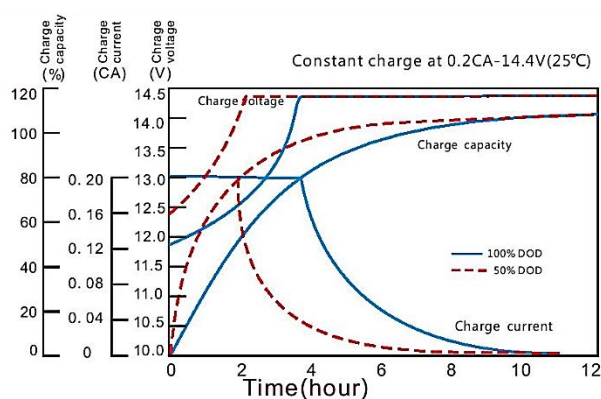
[W]	TIME - WATTS/CELL CONSTANT POWER DISCHARGE (25 °C)									
	F.V	10min	15min	30min	1h	3h	5h	10h	20h	100h
	1.65V	738,48	624,85	387,68	228,48	105,96	71,82	41,41	21,62	.....
	1.70V	688,79	594,04	374,24	222,42	101,52	70,20	40,91	21,41	.....
	1.75V	648,38	560,81	361,41	217,68	100,81	68,69	40,40	21,31	.....
	1.80V	603,13	530,40	348,89	208,69	98,08	67,17	39,90	21,21	5,21
	1.85V	504,14	442,02	303,43	186,46	88,08	62,83	37,68	19,90	5,12

### Dimensions - Terminals

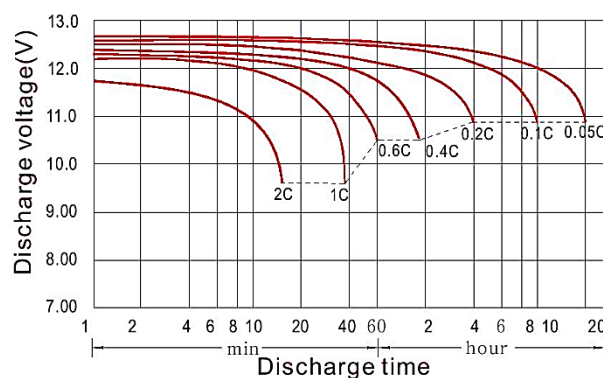


### Performance Curves

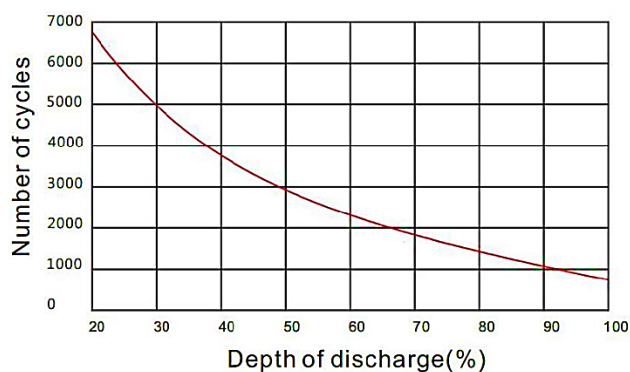
**Charge characteristic Curve**



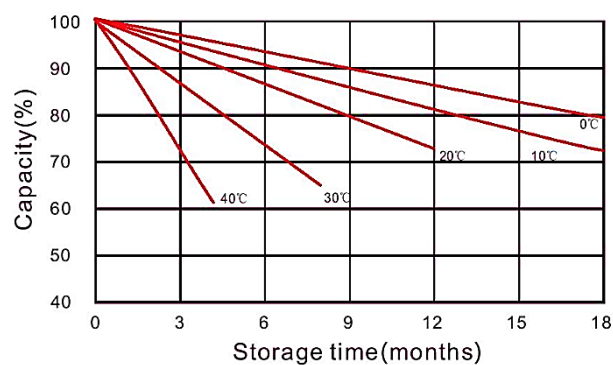
**Discharge characteristic Curve**



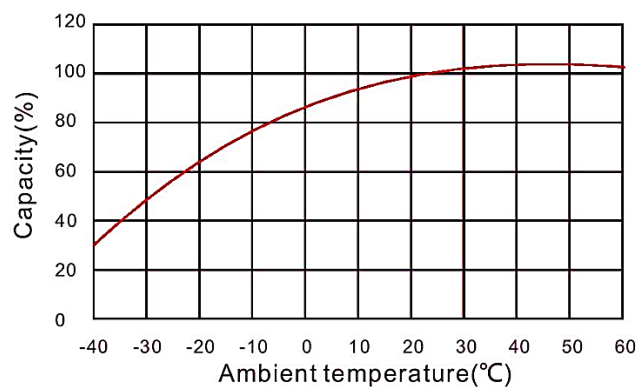
**Life characteristics of cyclic use**



**Storage characteristic**



**Temperature vs Capacity**



**OCV vs Capacity**

