

# 6-CNF Series

VRLA Battery For Energy Storage

6-CNF-100



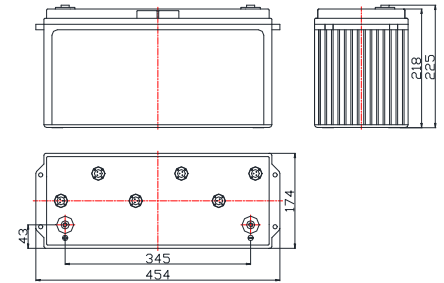
## Main Applications

- Renewable energy (wind & solar ) storage system
- Peak shifting of electrical power system
- Frequency regulation and load following service
- Smart-grid & micro-grid sites
- Off-grid & bad-grid sites

## Benefits

- Extra long life design, design life is 20 years
- Superior deep cycling performance
- Lifetime maintenance free, Low annual operating cost, reduced TCO
- High potential fuel savings when used with hybrid genset applications

## Dimensions



## Technical Parameters

Nominal Voltage	12 V
Capacity	100 Ah @ 10hr to 1.80V per cell @ 25°C (77°F)
Weight	39.8 kg (87.74 lbs)
Dimensions	Length: 454 mm Width: 174 mm Height: 218 mm Total height: 225 mm
Internal Resistance (full charged)	Approx. 4.3 mΩ @ 25°C(77°F)
Short- circuit Current	620 A(5sec)
Self Discharge @25°C(77°F)	Less than 4% after 30 days storage
Operating Temperature Range	Discharge: -40°C~50°C(-40°F~122°F) Charge: -20°C~45°C(-4°F~113°F) Storage:-20°C~40°C(-4°F~104°F)
Recommended Operating Temperature	15°C~25°C (59°F~77°F)
Maximum Charging Current	20 A
Charging Voltage @25°C(77°F)	Float: 2.25 V/cell, Temps coefficient -3 mV/°C Equalize: 2.35 V/cell Cycle:2.40 V/cell
Terminal	M6
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature(C <sub>10</sub> )	105% @ 40°C(104°F) 85% @ 0°C(32°F) 60% @ -20°C(-4°F)
Design Life @25°C(77°F)	20 years

## Attain Certificate

- ISO9001
- ISO14001
- ISO18001

## Technical Features

- Adopt lead- carbon technology
- Special gel electrolyte without flowing to avoid acid stratification and can prolong service life
- Excellent charging and discharging ability in low current
- Exquisite design for premium quality, high reliability and stability

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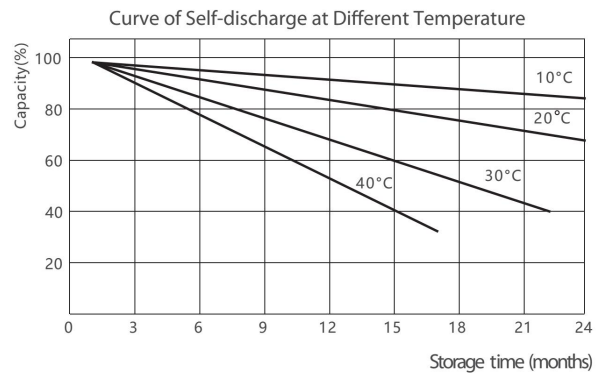
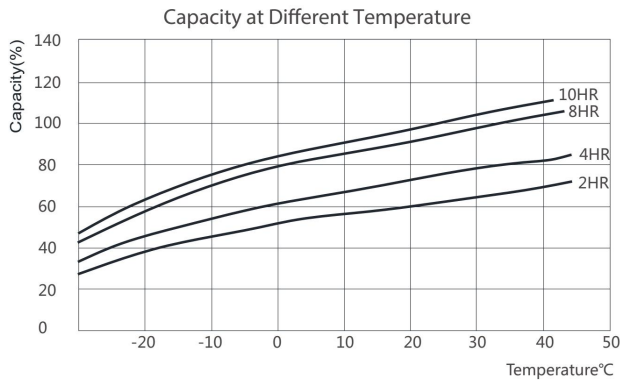
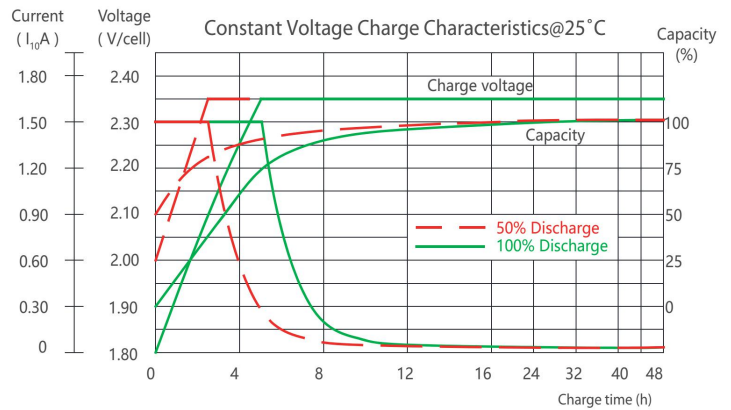
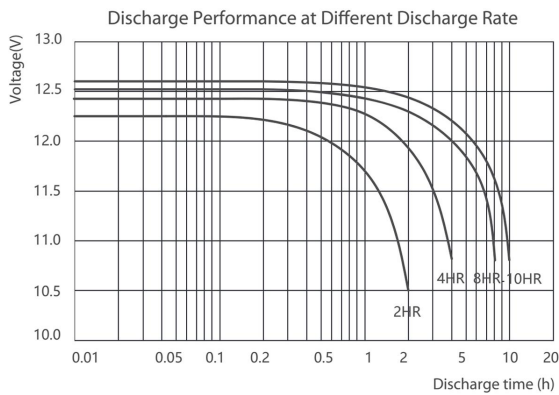
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	138	88.5	54.5	32.7	24.3	19.6	16.5	14.5	11.7	10.0	5.23
1.80V/cell	150	94.0	56.1	33.9	25.3	20.2	16.9	14.8	12.0	10.2	5.34
1.75V/cell	157	98.7	58.1	34.9	25.9	20.6	17.3	15.2	12.2	10.3	5.41
1.70V/cell	164	103	59.9	35.9	26.4	21.0	17.6	15.4	12.3	10.4	5.47
1.67V/cell	167	107	61.4	36.7	26.9	21.3	17.8	15.6	12.5	10.5	5.52
1.60V/cell	175	110	62.7	37.3	27.3	21.6	18.0	15.8	12.6	10.6	5.57

## Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

F.V/Time	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	261	170	105	64.4	48.2	38.9	32.7	28.9	23.4	20.0	10.5
1.80V/cell	281	179	108	66.7	49.8	39.9	33.5	29.5	23.9	20.3	10.7
1.75V/cell	294	187	111	68.5	50.7	40.7	34.1	30.0	24.2	20.5	10.8
1.70V/cell	307	194	115	70.0	51.7	41.3	34.5	30.4	24.5	20.7	10.9
1.67V/cell	311	200	117	71.3	52.5	41.9	35.0	30.7	24.7	20.8	11.0
1.60V/cell	321	205	119	72.2	53.0	42.3	35.2	31.0	24.9	20.9	11.1

## Performance Curve



### \*Declaration:

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

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