

# 6-CNF Series

VRLA Battery For Energy Storage

6-CNF-85



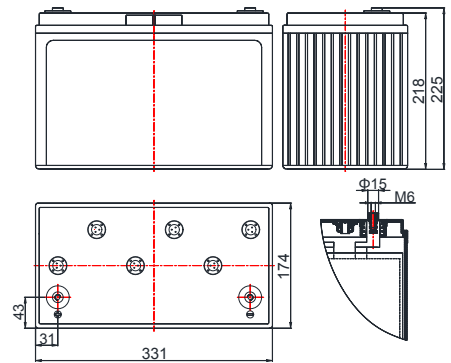
## Main Applications

- ▶ 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	85 Ah @ 10hr to 1.80V per cell @ 25°C (77°F)
Weight	33 kg (72.75 lbs)
Dimensions	Length: 331 mm Width: 174 mm Height: 218 mm Total height: 225 mm
Internal Resistance (full charged)	Approx. 4.4 mΩ @ 25°C(77°F)
Short- circuit Current	527 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	17 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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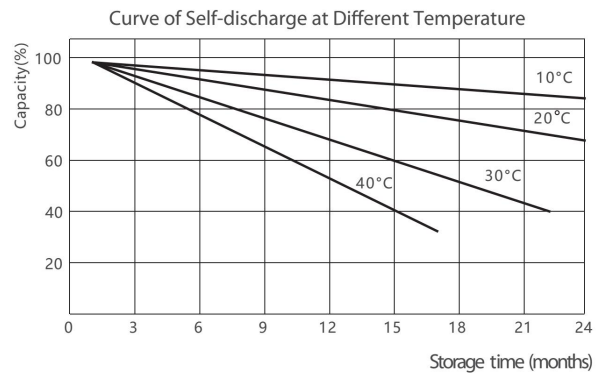
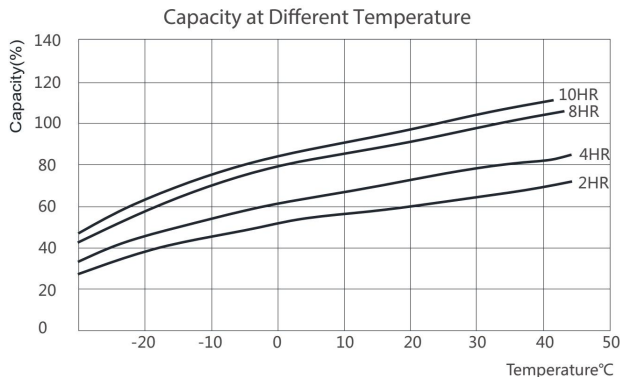
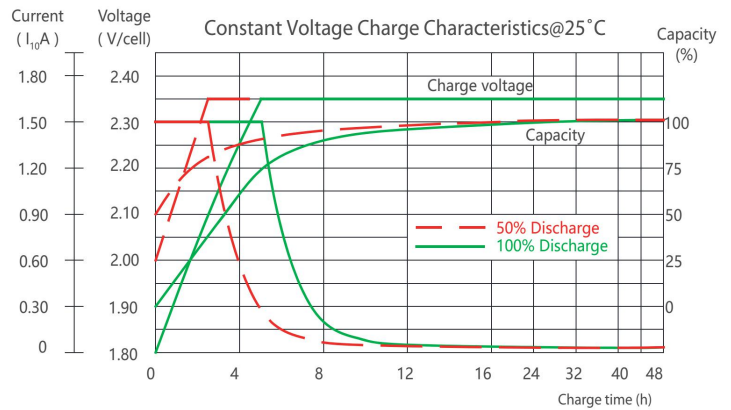
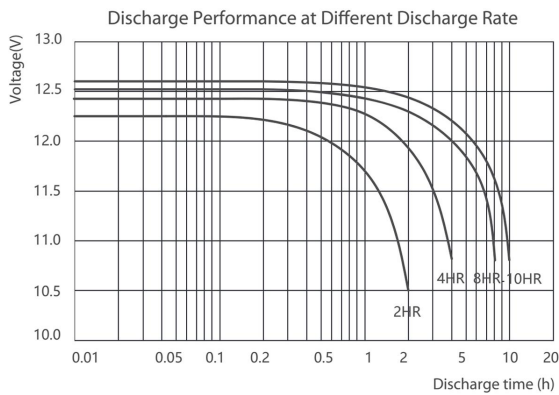
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	118	75.3	46.4	27.8	20.7	16.7	13.9	12.3	10.0	8.48	4.45
1.80V/cell	128	79.9	47.7	28.9	21.5	17.2	14.3	12.6	10.2	8.69	4.53
1.75V/cell	134	83.9	49.4	29.7	21.9	17.6	14.6	12.8	10.4	8.79	4.60
1.70V/cell	140	87.4	50.9	30.5	22.4	17.9	14.9	13.0	10.5	8.89	4.66
1.67V/cell	142	90.4	52.2	31.1	22.8	18.2	15.2	13.2	10.6	8.99	4.70
1.60V/cell	148	93.6	53.3	31.7	23.2	18.4	15.4	13.4	10.7	9.09	4.73

## 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	221	144	89.6	54.7	41.0	33.0	27.9	24.5	20.0	17.0	8.99
1.80V/cell	240	152	91.7	56.7	42.3	33.9	28.5	25.1	20.3	17.3	9.09
1.75V/cell	251	159	94.8	58.3	43.1	34.5	29.0	25.5	20.6	17.5	9.19
1.70V/cell	261	165	97.5	59.5	43.9	35.1	29.4	25.9	20.8	17.6	9.29
1.67V/cell	264	170	99.6	60.6	44.6	35.7	29.8	26.2	21.0	17.7	9.29
1.60V/cell	273	175	101	61.4	45.1	36.0	30.0	26.4	21.2	17.8	9.39

## Performance Curve



### \*Declaration:

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