

6-CNF Series

VRLA Battery For Energy Storage

6-CNF-65



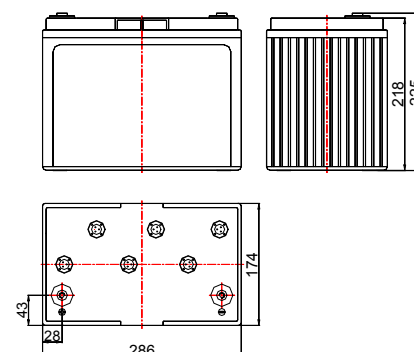
Main Applications

- ▣ 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	65 Ah @ 10hr to 1.80V per cell @ 25°C (77°F)
Weight	26.8 kg (59.08 lbs)
Dimensions	Length: 286 mm Width: 174 mm Height: 218 mm Total height: 225 mm
Internal Resistance (full charged)	Approx. 5.8 mΩ @ 25°C(77°F)
Short- circuit Current	403 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	13 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 ₁₀)	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

- ISO 9001
- ISO 14001
- GB/T 28001

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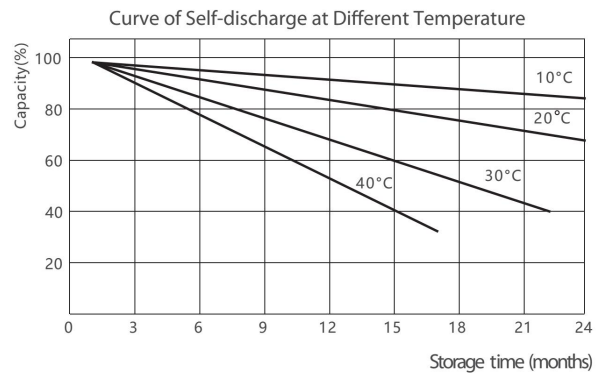
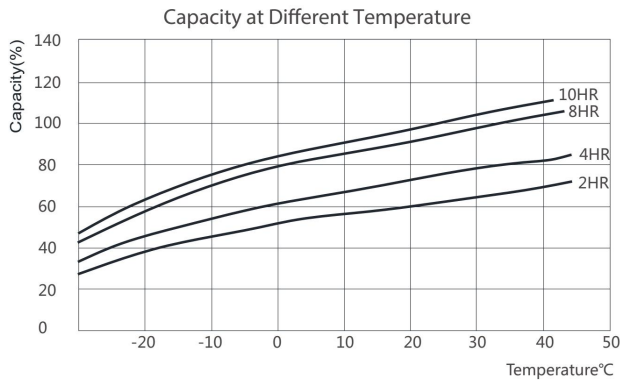
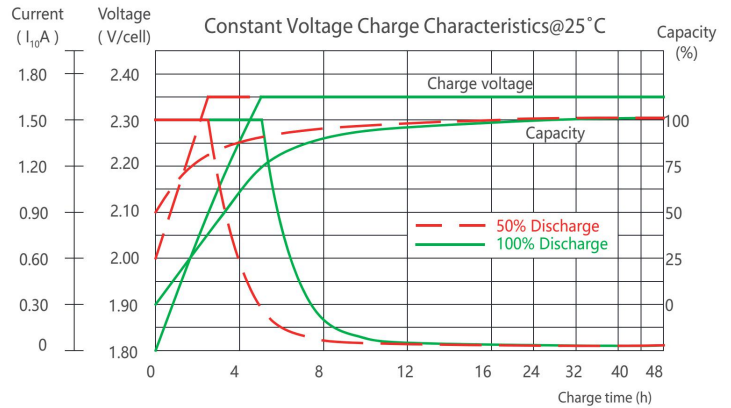
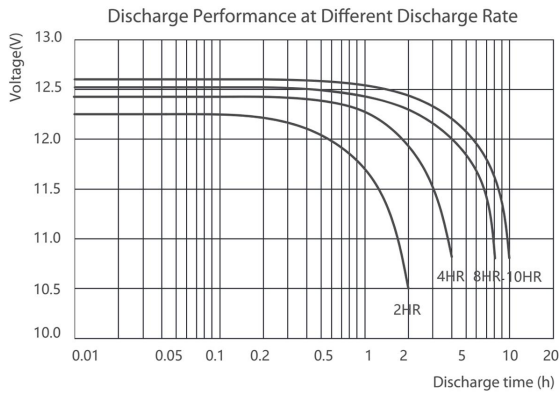
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	89.7	57.6	35.5	21.2	15.9	12.7	10.7	9.42	7.62	6.48	3.40
1.80V/cell	97.6	61.1	36.5	22.0	16.5	13.1	11.0	9.66	7.79	6.62	3.47
1.75V/cell	103	64.1	37.8	22.7	16.8	13.4	11.2	9.84	7.93	6.70	3.51
1.70V/cell	108	66.8	38.9	23.3	17.2	13.6	11.4	10.0	8.04	6.78	3.56
1.67V/cell	109	69.1	39.9	23.8	17.5	13.8	11.6	10.1	8.14	6.84	3.60
1.60V/cell	114	71.6	40.8	24.2	17.8	14.0	11.7	10.2	8.21	6.89	3.62

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	170	110	68.5	41.8	31.3	25.3	21.3	18.8	15.3	13.0	6.84
1.80V/cell	183	117	70.2	43.3	32.4	26.0	21.8	19.2	15.6	13.2	6.95
1.75V/cell	192	122	72.5	44.5	33.0	26.5	22.1	19.5	15.8	13.3	7.02
1.70V/cell	199	126	74.5	45.6	33.6	26.9	22.4	19.8	16.0	13.4	7.08
1.67V/cell	202	130	76.2	46.4	34.1	27.3	22.7	20.0	16.1	13.5	7.13
1.60V/cell	209	133	77.4	47.0	34.5	27.5	22.9	20.1	16.2	13.6	7.16

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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