

# KBF121000HC

(12V100Ah)

High Cycle Front Terminal Battery



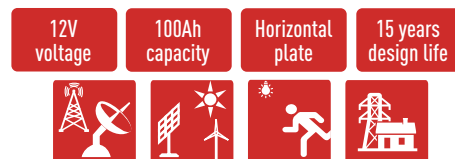
The CF series is high cycle front terminal VRLA battery in both cycle and float applications even in hottest and hardest environment. By combining innovational horizontal plate design with up-to-date AGM technology, the CF series delivery high cycle and long float life performance. True front access connection and centralized venting system of CF series for fast, safety installation and maintenance.

## FEATURES AND BENEFITS

- Innovational horizontal plate structure
  - Overcome acid stratification issue
  - Overcome pressure loss issue
  - 3x cycle life of conventional AGM battery
- Suit for 23" and ETSI power racks/cabinets with front terminal
- High safety and reliability
- 15 years design float life at 25
- True front-terminal design
  - Not requiring any additional top space
- Enhanced container with reinforce ribs design
  - Suit for hottest operating environment
- Ideal for cycling application where unstable grid power supply or no-grid, such as Telecom BTS, hybrid genset, renewable energy storage

## TECHNICAL SPECIFICATIONS

|                                       |                                                              |
|---------------------------------------|--------------------------------------------------------------|
| Nominal Voltage (V)                   | 12 (6 cells per unit)                                        |
| Designed Floating Life (25 C) °       | 15 Years                                                     |
| Nominal Capacity (25 C) °             | 100 Ah @ 10HR-rate (to 1.80Vpc)                              |
| Dimension (mm)                        | L370mm x W125mm x H291mm                                     |
| Approx. Weight                        | 33.0 kg (72.8 lbs)                                           |
| Terminal Type                         | Female Copper Insert M8 (torque:10~12N.m)                    |
| Internal Resistance                   | Approx. 0.005 Ohm (fully charged)                            |
| Max. Charge Current                   | 30A                                                          |
| Max. Discharge Current (5S)           | 800 A                                                        |
| Short Circuit Current                 | 2000 A                                                       |
| Self Discharge                        | Approx. 2.5% per month @ 20°C                                |
| Ambient Temperature                   | Discharge: -40~65°C<br>Charge: -20~55°C<br>Storage: -20~45°C |
| Float Charge Voltage                  | 13.5V/block @25 Ċ (-3mV/ cell/ C)°                           |
| Equalize and Cycle Use Charge Voltage | 14.1V/block @25 Ċ                                            |
| Container Material                    | ABS (UL94-V0 optional)                                       |



### Complied Standards

- IEC 60896-21/22
- GB/T19638
- YD/T 799
- IEC61427
- BS6290 part 4

### Main Applications

- Renewable energy (wind & solar) site
- Off-grid & bad-grid environment
- Communication systems
- UPS and emergency illumination
- IDC

## BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)

| F.V/Time | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 176   | 108   | 69.3 | 39.5 | 28.3 | 22.5 | 18.4 | 13.4 | 10.6 | 5.50 |
| 1.67V    | 165   | 105   | 67.7 | 38.8 | 27.9 | 22.0 | 18.2 | 13.2 | 10.5 | 5.45 |
| 1.70V    | 157   | 101   | 66.7 | 38.3 | 27.6 | 21.8 | 18.0 | 13.1 | 10.3 | 5.38 |
| 1.75V    | 145   | 97.2  | 65.1 | 37.6 | 27.2 | 21.5 | 17.7 | 12.9 | 10.2 | 5.33 |
| 1.80V    | 135   | 92.9  | 63.0 | 36.5 | 26.6 | 21.0 | 17.5 | 12.6 | 10.0 | 5.30 |
| 1.85V    | 123   | 87.6  | 61.2 | 35.2 | 25.4 | 20.4 | 16.9 | 12.2 | 9.65 | 5.00 |

Constant Power Discharge Characteristics: W/cell (25°C)

| F.V/Time | 15min | 30min | 1h  | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-----|------|------|------|------|------|------|------|
| 1.60V    | 321   | 200   | 129 | 74.2 | 53.4 | 42.6 | 34.9 | 25.8 | 20.5 | 10.9 |
| 1.67V    | 303   | 195   | 127 | 73.3 | 53.1 | 42.0 | 34.1 | 25.6 | 20.3 | 10.8 |
| 1.70V    | 289   | 188   | 126 | 72.9 | 52.8 | 41.9 | 34.7 | 25.4 | 20.2 | 10.7 |
| 1.75V    | 272   | 184   | 124 | 72.3 | 52.4 | 41.8 | 34.4 | 25.3 | 20.1 | 10.6 |
| 1.80V    | 256   | 177   | 121 | 70.7 | 51.7 | 41.2 | 34.2 | 25.0 | 19.9 | 10.5 |
| 1.85V    | 235   | 169   | 119 | 68.6 | 49.9 | 40.3 | 33.3 | 24.2 | 19.3 | 10.1 |

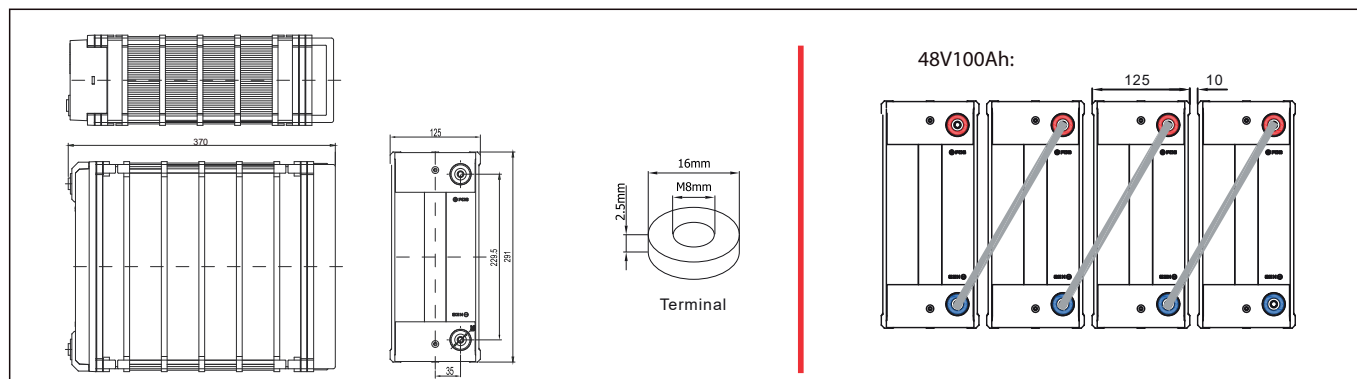
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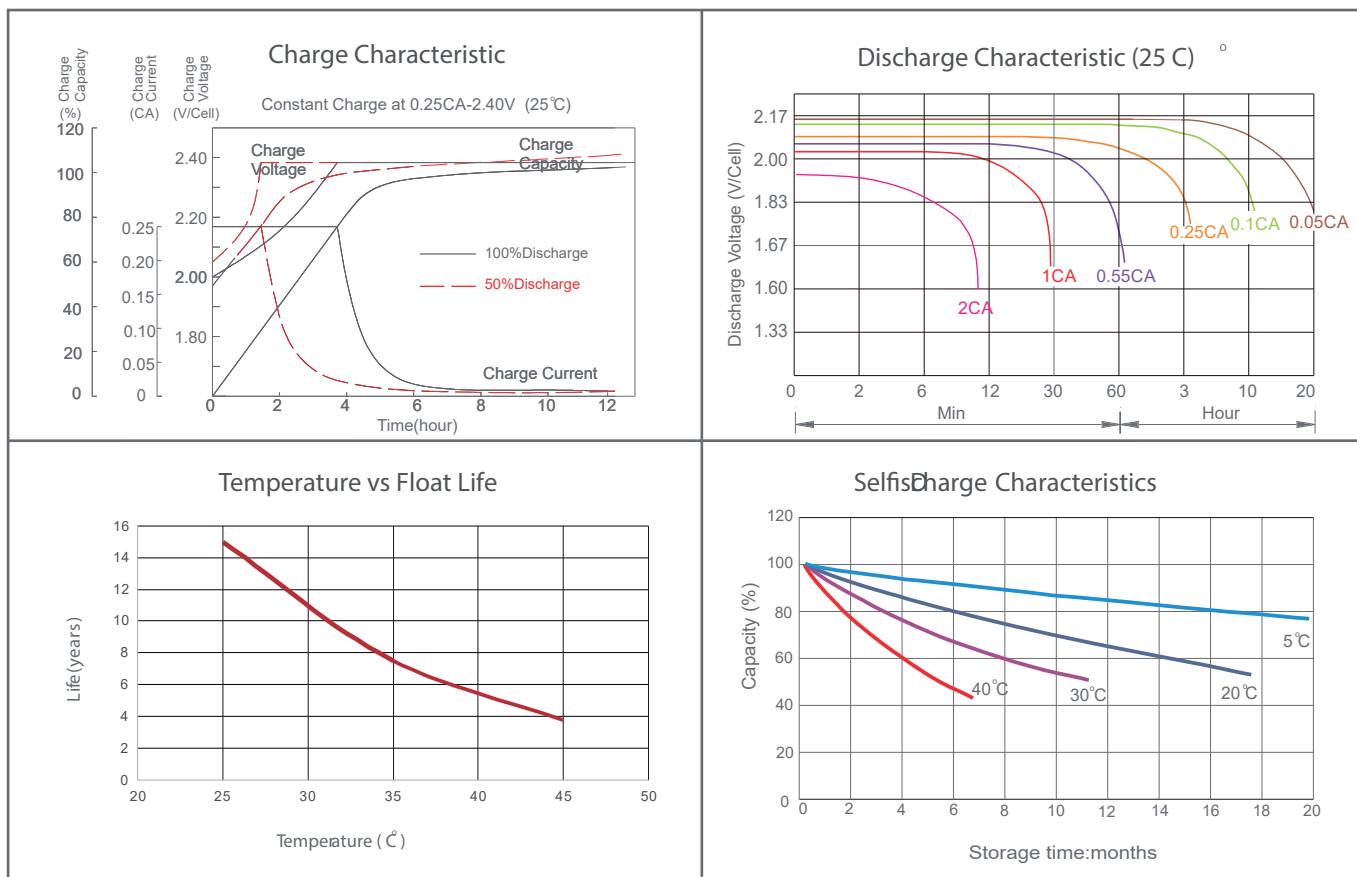
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## BATTERY DIMENSIONS



## CHARACTERISTICS



## FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

| Discharge Current I (A) | $I \leq 0.08C$    | $0.08C \leq I < 0.2C$ | $0.2C \leq I < 0.6C$ | $0.6C \leq I < 1.0C$ | $I \geq 1.0C$     |
|-------------------------|-------------------|-----------------------|----------------------|----------------------|-------------------|
| Final of Voltage        | $\geq 1.85V_{pc}$ | $\geq 1.80V_{pc}$     | $\geq 1.75V_{pc}$    | $\geq 1.70V_{pc}$    | $\geq 1.60V_{pc}$ |

