

## CNFJ series sealed lead acid battery

The CNFJ series is suitable for medium and low depth of discharge applications. The product uses a nanogel electrolyte with a dedicated deep cycle formulation. CNFJ series has high charging efficiency at extremely low charging current, and has excellent resistance to overcharge and overdischarge. This range of products is suitable for photovoltaics, wind power systems and similar cyclic applications.

12 V  
voltage180Ah  
capacitycircular  
technology8years  
design life

### TECHNICAL SPECIFICATIONS

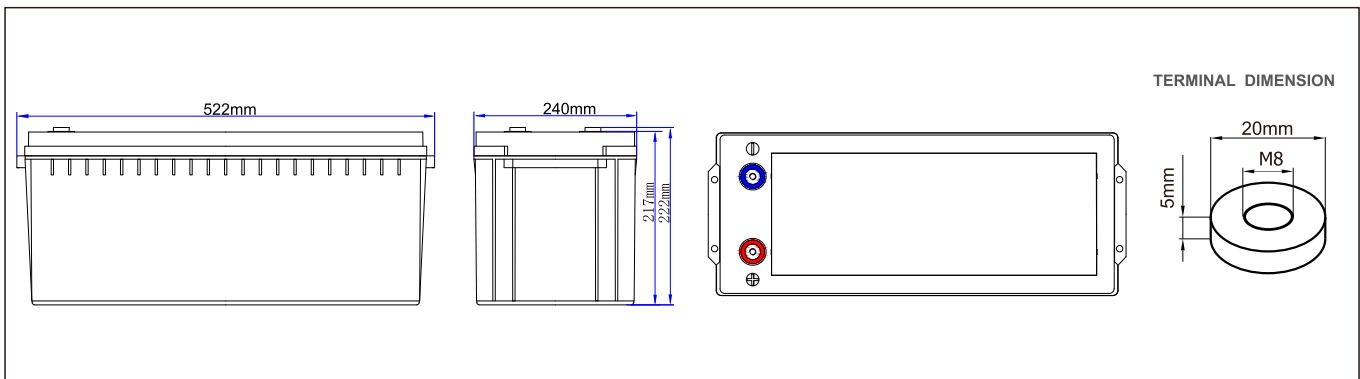
|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| Nominal Voltage (V)                   | 12 (6 cells per unit)                                            |
| Designed Floating Life (25°C)         | 8 Years                                                          |
| Nominal Capacity (25°C)               | 180Ah@C <sub>10</sub> Capacitance, 18.0A discharging to be 10.8V |
| Dimension (mm)                        | L520mmxW240mmxH222mm                                             |
| Approx. Weight                        | 54.3 kg                                                          |
| Terminal Type                         | Female Copper Insert M8 (torque: 8~10N.m)                        |
| Internal Resistance                   | Approx. 5.2 mΩ (fully charged @ 25°C)                            |
| Max. Charge Current                   | 45.0A                                                            |
| Max. Discharge Current (5S)           | 1350 A                                                           |
| Self Discharge                        | Approx. 4 % per month @ 25°C                                     |
| Ambient Temperature                   | Discharge: -25~65°C<br>Charge: -25~60°C<br>Storage: -25~45°C     |
| Float Charge Voltage                  | 14.4 ~ 14.7V @ 25°C                                              |
| Equalize and cycle Use Charge Voltage | 13.5 ~ 13.8V @ 25°C                                              |
| Container Material                    | ABS (UL94-V0 optional)                                           |



### Complied standards

- IEC61427
- GB/T 22473
- UL1989

### BATTERY DIMENSIONS



### BATTERY DISCHARGE TABLE

| Constant Current Discharge Characteristics: Amps (25°C) |       |     |      |      |      |      |      |      |      |  |
|---------------------------------------------------------|-------|-----|------|------|------|------|------|------|------|--|
| F.V/Time                                                | 30min | 1h  | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |  |
| 1.70V                                                   | 186   | 116 | 68.5 | 49.8 | 39.7 | 33.1 | 22.5 | 18.6 | 9.82 |  |
| 1.75V                                                   | 180   | 113 | 67.3 | 49.0 | 39.3 | 32.7 | 22.2 | 18.4 | 9.63 |  |
| 1.80V                                                   | 172   | 110 | 65.9 | 48.1 | 38.4 | 31.9 | 21.7 | 18.0 | 9.45 |  |
| 1.85V                                                   | 162   | 105 | 63.3 | 46.5 | 37.3 | 31.2 | 21.2 | 17.5 | 9.23 |  |

| Constant Power Discharge Characteristics: W/cell (25°C) |       |     |     |      |      |      |      |      |      |  |
|---------------------------------------------------------|-------|-----|-----|------|------|------|------|------|------|--|
| F.V/Time                                                | 30min | 1h  | 2h  | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |  |
| 1.70V                                                   | 349   | 219 | 130 | 95.3 | 76.3 | 64.0 | 43.9 | 36.4 | 19.3 |  |
| 1.75V                                                   | 340   | 216 | 129 | 94.6 | 76.1 | 63.7 | 43.7 | 36.2 | 19.1 |  |
| 1.80V                                                   | 328   | 211 | 128 | 93.6 | 75.0 | 62.7 | 43.0 | 35.8 | 18.9 |  |
| 1.85V                                                   | 313   | 203 | 124 | 91.3 | 73.5 | 61.7 | 42.3 | 35.0 | 18.5 |  |

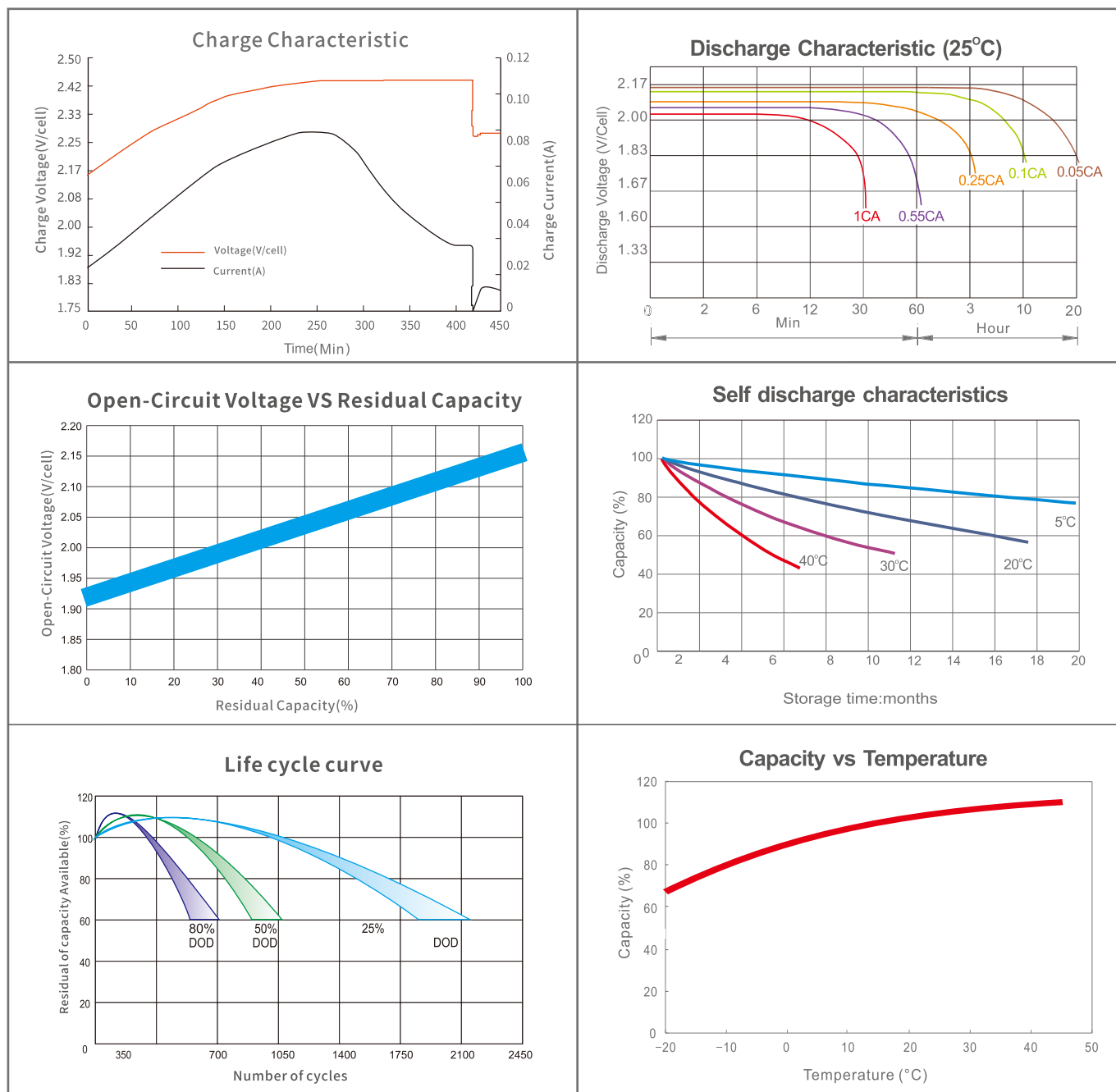
### Long-term discharge capacity parameters

| Capacity      | C <sub>24</sub><br>(Ah) | C <sub>48</sub><br>(Ah) | C <sub>72</sub><br>(Ah) | C <sub>100</sub><br>(Ah) | C <sub>120</sub><br>(Ah) |
|---------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| 6-CNFJ-180    | 193                     | 203                     | 209                     | 218                      | 225                      |
| Final Voltage | 1.85V                   |                         |                         |                          |                          |

### Solar & Wind applications parameters settings

|                               |                         |
|-------------------------------|-------------------------|
| Over voltage disconnect:      | 2.45±0.01V/cell @ 25°C  |
| Regulation/equalize voltage:  | 2.40±0.01V/cell @ 25°C  |
| Array reconnection voltage:   | 2.25±0.005V/cell @ 25°C |
| Float voltage setting:        | 2.27±0.005V/cell @ 25°C |
| Low voltage alarm voltage:    | 1.95±0.005V/cell @ 25°C |
| Low voltage disconnect:       | 1.90±0.005V/cell @ 25°C |
| Load reconnect voltage:       | 2.09±0.01V/cell @ 25°C  |
| Temp. compensate coefficient: | -3~-5mV/cell/°C         |

## CHARACTERISTICS



## FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

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

## HEADQUARTERS AND SUBSIDIARIES

Zhejiang Xupai Power CO.,Ltd

Xupai Power Co., Ltd.

Jiangxi Hetian New Energy Technology Co., Ltd

Jiangxi Yatai Electric Co., Ltd.

Tian Wei New Energy Technologies Ltd.

