# CFPS23000(2V3000Ah)

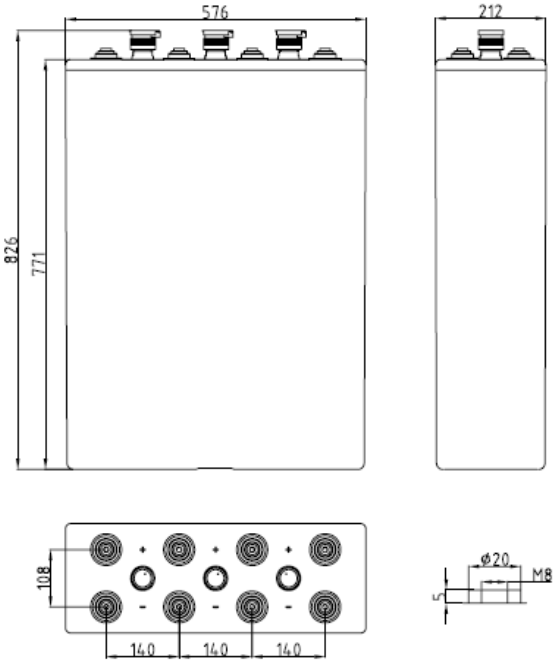
## Specifications

| | | |
|---|---|---|
| Nominal Voltage | | 2 V |
| Capacity (20℃) | 10HR(1.80V) | 3000 Ah |
| | 3HR(1.75V) | 2295Ah |
| | 1HR(1.60V) | 1680Ah |
| Battery Weigh | Dry | 157kg (346.2lbs)±5% |
| | Wet | 220kg (485.1lbs)±5% |
| Acid Weight (d=1.24kg/l) | | Approx.63kg (138.9lbs) |
| Terminal type /material | | T10 / Copper |
| Internal resistance (Fully charged, 25℃) | | Approx. 0.20 mΩ |
| Self-discharge | 1 month | Remaining Capacity: 86%(20℃) |
| Nominal operating temperature | | 20℃±5℃(68℉±9℉) |
| Operating temperature range | Discharge | -15℃～50℃(5℉～122℉) |
| | Charge | 10℃～45℃(50℉～113℉) |
| | Storage | 10℃～30℃(50℉～86℉) |
| Initial charging | Constant current | Charge the battery at 0.05 $C_{10}$ for 72h. |
| | Constant voltage | Charge the battery at 0.1 $C_{10}$ to 2.35v/cell; then Charge the battery with 2.35v/cell until the whole charge time up to 100h. |
| Mark of Fully charged | Constant current | The battery voltage and density of electrolyte remain stable over 2h at the end of charging , and strong bubbles generated within the electrolyte |
| | Constant voltage | The charging current and density of electrolyte kept constant for more than 3h at the end of the charge; and the charging current is about 0.002~0.005 C10 amp. |
| Supplementary charge | | Charge the battery at 0.05 $C_{10}$ to fully charged. |
| Equalizing charging | | Charge the battery with 2.40v/cell for 48h. |
| Battery operation | Float charging | Charge the battery with 2.23V (25℃); Equalizing charging the battery when the abnormal occurs |
| | Charge& discharge | Equalizing charging the battery after discharged and per 3months |
| | Backup | Supplementary charge the battery per 3 or 6 months. |
| Maximum charging current | | 750A(0.25$C_{10}$) |
| Max. discharge current | | 15000A(5 sec.) |
| Designed cycle life | | 1600@80% DOD (30℃) |
| Designed floating life | | 20 years(20℃) |

**CHARACTERISTICS:**

- Tubular Positive Plate;
- Flooded Battery;
- Porous Rubber and Porous PVC Separator
- Transparent Container.

**Dimensions**




CFPS23000

## Constant Current Discharge Characteristics (A, 25℃)

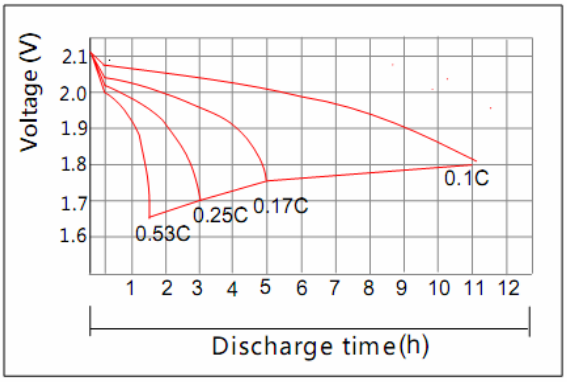
| F.V/TIME | 30min | 60min | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 24h | 48h | 120h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.70V | 2340 | 1620 | 990 | 771 | 618 | 543 | 462 | 354 | 303 | 163 | 143 | ---- | ---- |
| 1.75V | 2280 | 1572 | 975 | 765 | 615 | 540 | 459 | 351 | 303 | 163 | 142 | ---- | ---- |
| 1.80V | 2196 | 1536 | 951 | 741 | 597 | 525 | 444 | 339 | 300 | 162 | 142 | 72.3 | ---- |
| 1.85V | 2076 | 1440 | 894 | 696 | 561 | 495 | 417 | 318 | 286 | 155 | 134 | 72.3 | 30.0 |

## Constant Power Discharge Characteristics (Watt, 25℃)

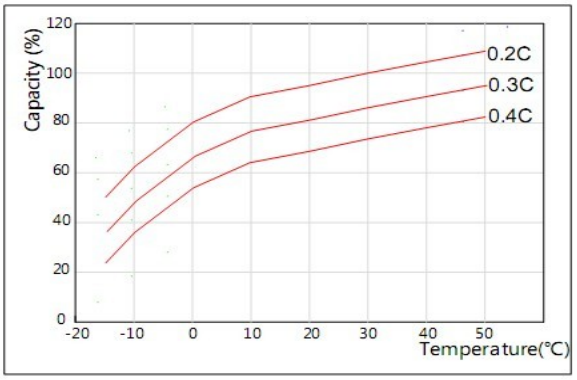
| F.V/TIME | 30min | 60min | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 24h | 48h | 120h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.70V | 4368 | 3060 | 1908 | 1512 | 1212 | 1072 | 912 | 700 | 606 | 328 | 287 | ---- | ---- |
| 1.75V | 4260 | 3000 | 1872 | 1500 | 1212 | 1066 | 904 | 696 | 600 | 328 | 286 | ---- | ---- |
| 1.80V | 4116 | 2916 | 1836 | 1452 | 1170 | 1032 | 876 | 676 | 598 | 324 | 283 | 146 | ---- |
| 1.85V | 3828 | 2700 | 1716 | 1356 | 1090 | 960 | 816 | 628 | 556 | 300 | 270 | 146 | 61.2 |

Note: The above characteristics data can be obtained within three charge/discharge cycles.

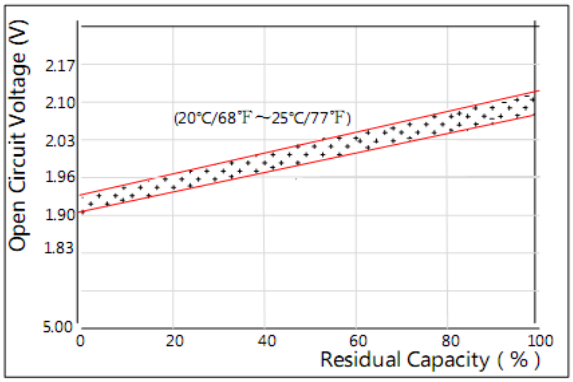
## Discharge Characteristics(25℃)



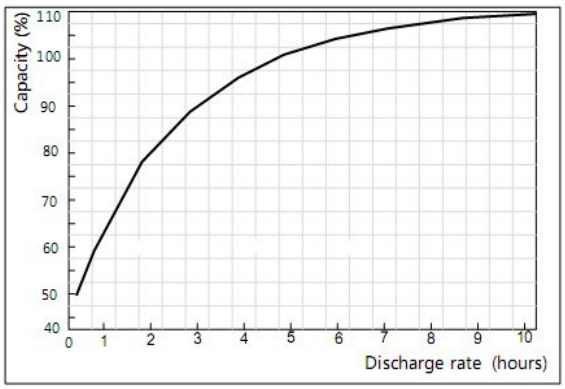

## Effect of Temperature on Capacity



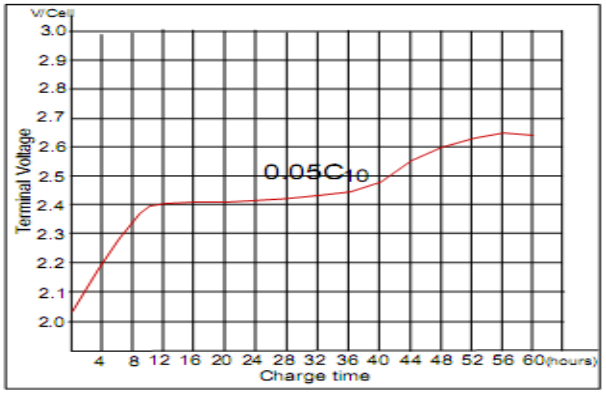

## The Relationship for Open Circuit Voltage and Residual Capacity (25℃)



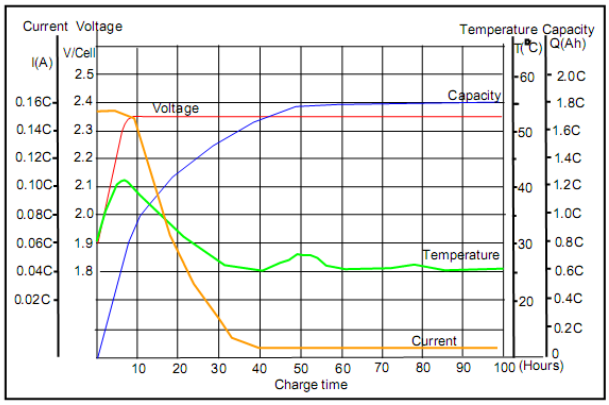

## Effect of Discharge rate on Capacity



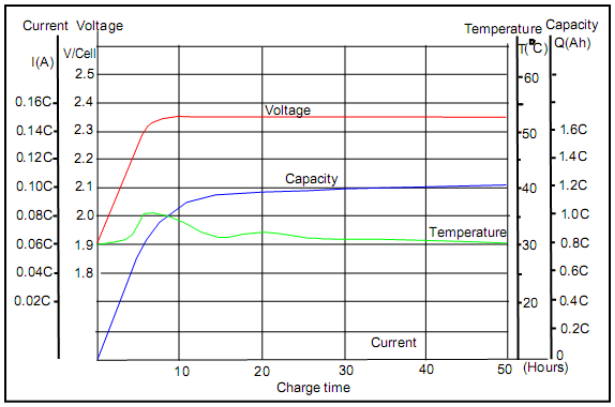

## Initial Charging (CC)Characteristics(25℃)




## Initial Charging (CV)Characteristics




## Supplementary charge (CV) Characteristics




## Cycle Life on D.O.D(25℃)