

## EDC6-450 (6V 450Ah)

### Specifications

|                                  |   |                                |
|----------------------------------|---|--------------------------------|
| Nominal Voltage                  | 6V  |                                |
| Nominal Capacity(20 Hr)          | 450Ah   |                                |
| Dimension                        | Length  | 295±1mm( 11.62 inches)         |
|                                  | Width   | 178±1mm( 7.01 inches)          |
|                                  | Containeriner Height  | 404±1mm( 15.91 inches)         |
|                                  | Total Height (With terminal)  | 424±1mm( 16.69 inches)         |
|                                  | Approx Weight   | Approx57.0kgs(125.66 lbs)      |
| Design life                      | 12 years  |                                |
| Terminal                         | DT  |                                |
| Container Material               | ABS   |                                |
| Rated Capacity                   | 450.0Ah/22.5A   | (20hr, 1.75V/Cell, 25 °C/77°F) |
|                                  | 409.6Ah/40.96A  | (10hr, 1.80V/Cell, 25 °C/77°F) |
|                                  | 357.85Ah/71.57A   | (5hr, 1.75V/Cell, 25 °C/77°F)  |
|                                  | 250.07Ah/250.07A  | (1hr, 1.60V/Cell, 25 °C/77°F)  |
| Max. Discharge Current           | 2000A(5s)   |                                |
| Internal Resistance              | Appro≤1.9mΩ   |                                |
| Operating Temp. Range            | Discharge: -20 °C~50 °C   |                                |
|                                  | Charge: -20 °C~50 °C  |                                |
|                                  | Storage: -20 °C~50 °C   |                                |
| Nominal Operating Temp. Range    | 25±3 °C(77±5°F )  |                                |
| Cycle Use                        | Initial Charging Current Less than 75.6 A. Voltage 7.2V-7.45V at 25 °C(77°F ) Temp. Coefficient-20mV/C  |                                |
|                                  | Standby Use<br>No limit on Intital Charging Current Voltage 6.8V-6.9V at 25 °C(77°F ) Temp. Coefficient-20mV/C  |                                |
| Capacity affected by Temperature | 40 °C( 104°F )  | 102%                           |
|                                  | 25 °C( 77°F )   | 100%                           |
|                                  | 0 °C( 32°F )  | 85%                            |
| Self Discharge                   | EDC series batteries may be stored for up to 6 months at25 °C(77°F ) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                                |



### Application

- ◆ All purpose
- ◆ Uninterruptable Power Supply(UPS)
- ◆ Electric Power System(EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and securitysystem
- ◆ Electronic apparatus & equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem

### Constant Current Discharge (Amperes) at 25 °C ( 77F )

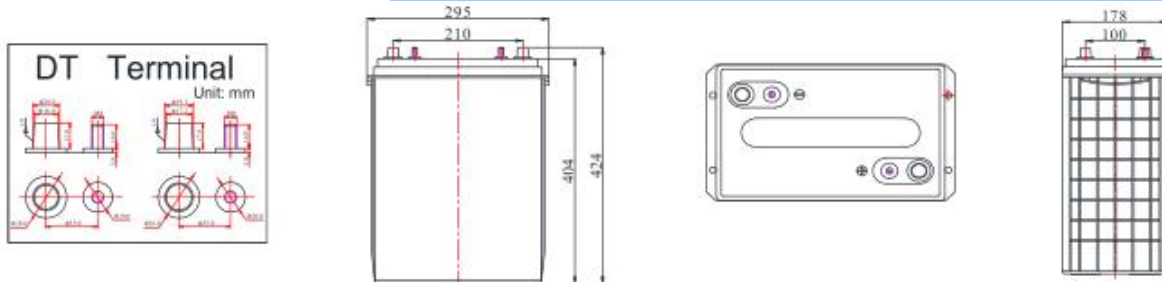
| F.V/Time     | 15 min | 30 min | 45 min | 1h     | 2h     | 3h     | 5h    | 8h    | 10h   | 20h   | 100h |
|--------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|------|
| <b>1.60V</b> | 578.86 | 366.81 | 271.71 | 250.07 | 158.83 | 111.60 | 75.61 | 49.91 | 44.53 | 23.84 | 5.40 |
| <b>1.67V</b> | 568.82 | 363.11 | 266.89 | 245.25 | 155.68 | 109.39 | 74.25 | 49.07 | 43.65 | 23.40 | 5.31 |
| <b>1.70V</b> | 558.00 | 356.36 | 261.86 | 240.75 | 153.00 | 107.57 | 72.86 | 48.11 | 42.75 | 22.95 | 5.18 |
| <b>1.75V</b> | 547.61 | 349.61 | 256.93 | 236.25 | 149.89 | 105.32 | 71.57 | 47.25 | 42.30 | 22.50 | 5.09 |
| <b>1.80V</b> | 526.62 | 336.18 | 247.13 | 227.30 | 144.03 | 101.27 | 68.91 | 45.44 | 40.96 | 22.28 | 4.99 |

### Constant Power Discharge (Watts) at 25 °C ( 77F )

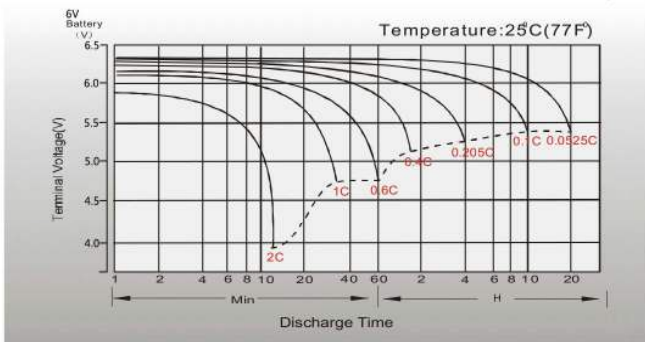
| F.V/Time     | 15 min  | 30 min | 45 min | 1h     | 2h     | 3h     | 5h     | 8h    | 10h   | 20h   | 100h  |
|--------------|---------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| <b>1.60V</b> | 1114.14 | 711.56 | 523.17 | 523.17 | 305.01 | 214.09 | 145.76 | 95.85 | 85.89 | 46.48 | 10.39 |
| <b>1.67V</b> | 1094.36 | 698.89 | 513.43 | 471.64 | 299.68 | 210.64 | 143.14 | 94.50 | 84.11 | 45.54 | 10.17 |
| <b>1.70V</b> | 1074.11 | 685.82 | 504.00 | 462.64 | 294.32 | 206.57 | 140.36 | 92.68 | 82.82 | 45.21 | 9.99  |
| <b>1.75V</b> | 1053.86 | 672.75 | 494.57 | 454.07 | 288.43 | 202.50 | 137.68 | 90.86 | 81.00 | 44.57 | 9.81  |
| <b>1.80V</b> | 1013.58 | 647.29 | 475.71 | 436.60 | 277.67 | 194.94 | 132.78 | 87.34 | 77.91 | 43.19 | 9.63  |

# EDC6-450 (6V 450Ah)

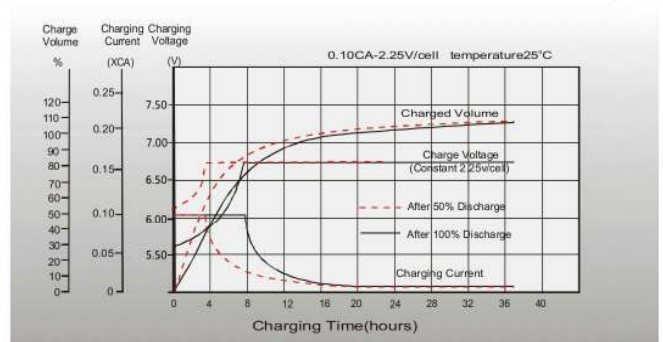
## Dimensions



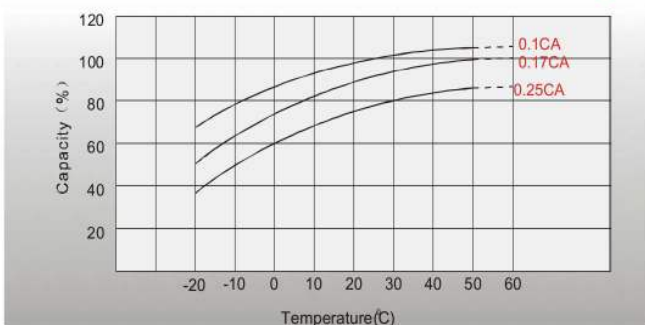
## Discharge Characteristics



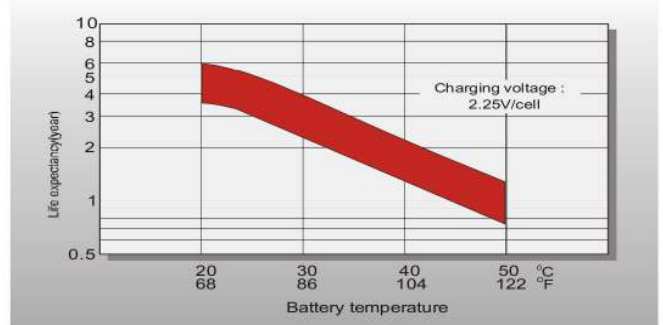
## Float Charging Characteristics



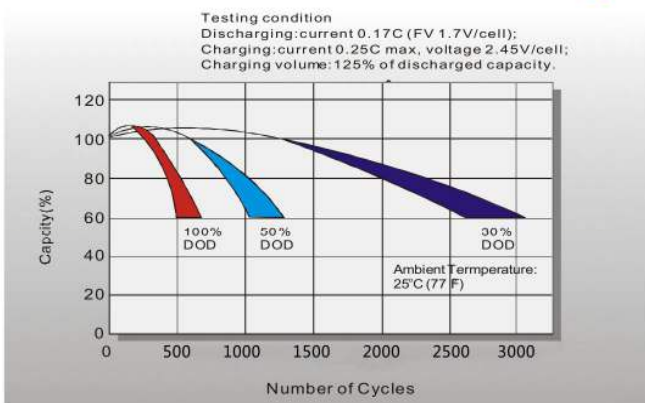
## Temperature Effects in Relation to Battery Capacity



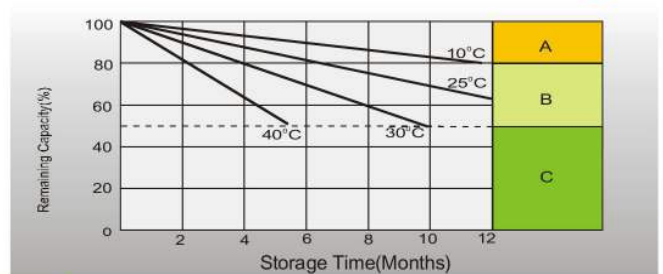
## Effect of Temperature on Long Term Float Life



## Cycle life in Relation to Depth of Discharge



## Self-discharge Characteristics



- A** No supplementary charge required.  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

Specifications subject to change without prior notice.