

### EDC6-450 (6V 450Ah)

#### Specification

|                                  |                                                                                                                                                                           |                                |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 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) |
|                                  | 409.3Ah/40.93A                                                                                                                                                            | (10hr, 1.80V/Cell, 25 °C/77°F) |
|                                  | 345.0Ah/69.00A                                                                                                                                                            | (5hr, 1.75V/Cell, 25 °C/77°F)  |
|                                  | 249.6Ah/249.6A                                                                                                                                                            | (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: 0 °C~40 °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 14.4V-15.0V at 25 °C(77°F ) Temp. Coefficient-20mV/C                                                                   |                                |
|                                  | No limit on Intital Charging Current Voltage 13.5V-13.8V at 25 °C(77°F ) Temp. Coefficient-20mV/C                                                                         |                                |
| Standby Use                      |                                                                                                                                                                           |                                |
| Capacity affected by Temperature | 40 °C( 104°F )                                                                                                                                                            | 103%                           |
|                                  | 25 °C( 77°F )                                                                                                                                                             | 100%                           |
|                                  | 0 °C( 32°F )                                                                                                                                                              | 86%                            |
| 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. |                                |



#### Applications

- ♦ 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 (77 °F )

| F.V/Time | 15min | 30min | 45min | 1h    | 2h    | 3h    | 5h   | 8h   | 10h   | 20h   | 100h |
|----------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|------|
| 1.60V    | 540.5 | 345.2 | 253.7 | 233.5 | 148.3 | 104.2 | 70.6 | 46.6 | 41.58 | 22.26 | 5.04 |
| 1.67V    | 530.9 | 338.9 | 249.1 | 228.9 | 145.3 | 102.1 | 69.3 | 45.8 | 40.74 | 21.84 | 4.96 |
| 1.70V    | 520.8 | 332.6 | 244.4 | 224.7 | 142.8 | 100.4 | 68.0 | 44.9 | 39.90 | 21.42 | 4.83 |
| 1.75V    | 511.1 | 326.3 | 239.8 | 220.5 | 139.9 | 98.3  | 66.8 | 44.1 | 39.48 | 21.00 | 4.75 |
| 1.80V    | 491.4 | 313.7 | 230.6 | 212.1 | 134.4 | 94.5  | 64.3 | 42.4 | 38.22 | 20.79 | 4.66 |

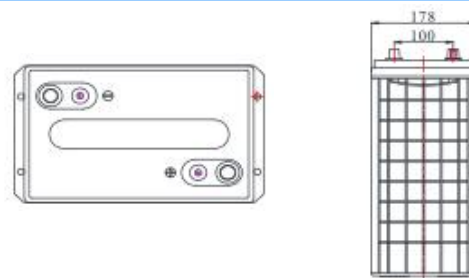
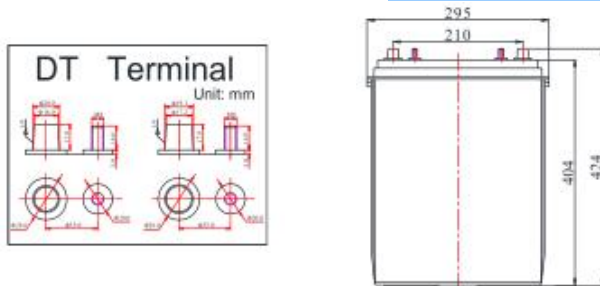
#### Constant Power Discharge (Watts) at 25 °C (77 °F )

| F.V/Time | 15min  | 30min | 45min | 1h    | 2h    | 3h    | 5h    | 8h   | 10h  | 20h  | 100h |
|----------|--------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.60V    | 1040.3 | 664.4 | 488.5 | 448.1 | 284.8 | 199.9 | 136.1 | 89.5 | 80.2 | 43.4 | 9.70 |
| 1.67V    | 1021.4 | 652.3 | 479.2 | 440.2 | 279.7 | 196.6 | 133.6 | 88.2 | 78.5 | 42.5 | 9.49 |
| 1.70V    | 1002.5 | 640.1 | 470.4 | 431.8 | 274.7 | 192.8 | 131.0 | 86.5 | 77.3 | 42.2 | 9.32 |
| 1.75V    | 983.6  | 627.9 | 461.6 | 423.8 | 269.2 | 189.0 | 128.5 | 84.8 | 75.6 | 41.6 | 9.16 |
| 1.80V    | 945.8  | 604.0 | 443.9 | 407.4 | 259.1 | 181.9 | 123.9 | 81.5 | 72.7 | 40.3 | 8.99 |

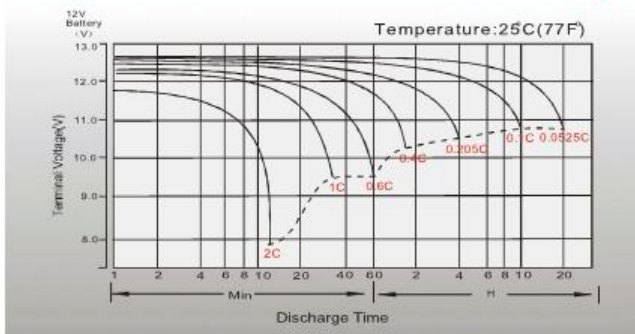
## EDC6-450 (6V 450Ah)

## Deep Cycle Batteries

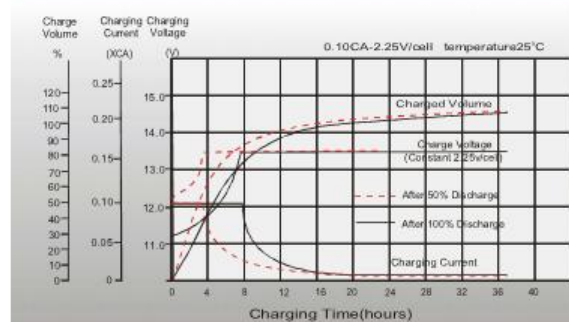
### Dimensions



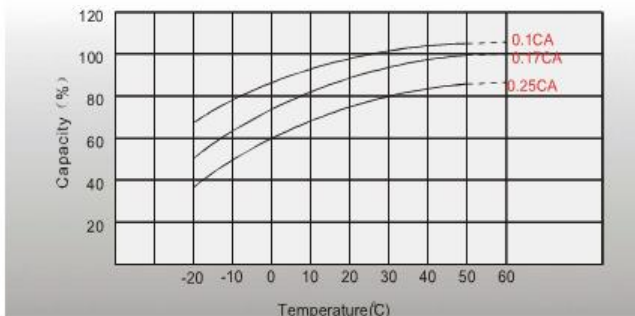
### Discharge Characteristics



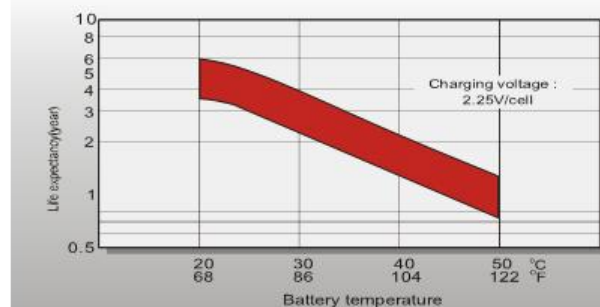
### Float Charging Characteristics



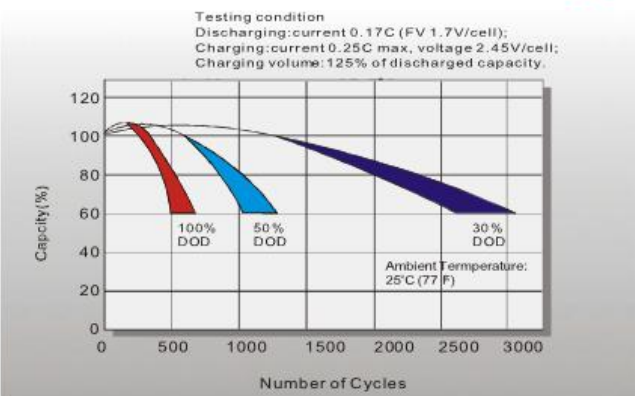
### Temperature Effects in Relation to Battery Capacity



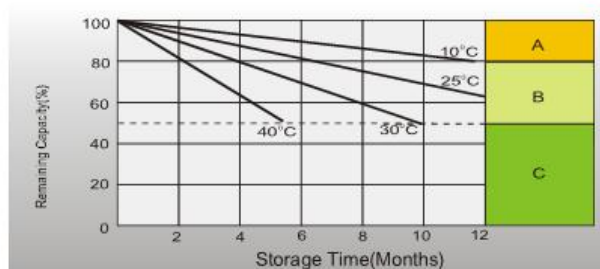
### Effect of Temperature on Long Term Float Life



### 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.