

## EDC12-24 (12V 24Ah)

### Specifications

|                                  |   |                                |
|----------------------------------|---|--------------------------------|
| Nominal Voltage                  | 12V   |                                |
| Nominal Capacity(20 Hr)          | 24Ah  |                                |
| Dimension                        | Length  | 181±1mm( 7.13 inches)          |
|                                  | Width   | 77±1mm( 3.03 inches)           |
|                                  | Container Height  | 167±1mm( 6.58 inches)          |
|                                  | Total Height (With terminal)  | 167±1mm( 6.58 inches)          |
| Approx Weight                    | Approx 6.1 kgs (13.45 lbs)  |                                |
| Design life                      | 12 years  |                                |
| Terminal                         | M5  |                                |
| Container Material               | ABS   |                                |
| Rated Capacity                   | 24.0Ah/1.20A  | (20hr, 1.75V/Cell, 25 °C/77°F) |
|                                  | 21.8Ah/2.18A  | (10hr, 1.80V/Cell, 25 °C/77°F) |
|                                  | 18.0Ah/3.60A  | (5hr, 1.75V/Cell, 25 °C/77°F)  |
|                                  | 13.3Ah/13.3A  | (1hr, 1.60V/Cell, 25 °C/77°F)  |
| Max. Discharge Current           | 300A(5s)  |                                |
| Internal Resistance              | Appro≤13.5mΩ  |                                |
| 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 5.40A. Voltage 14.4V-15.0V at 25 °C(77°F ) Temp. Coefficient-20mV/C  |                                |
|                                  | Standby Use<br>No limit on Intital Charging Current Voltage 13.5V-13.8V at 25 °C(77°F ) Temp. Coefficient-20mV/C  |                                |
| 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. |                                |



### 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 )

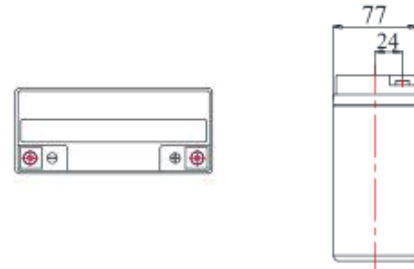
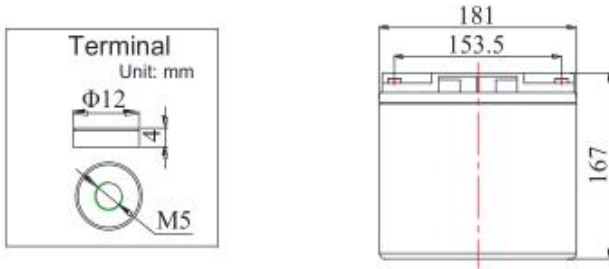
| F.V/Time | 15min | 30min | 45min | 1h   | 2h  | 3h  | 5h  | 8h  | 10h  | 20h  | 100h |
|----------|-------|-------|-------|------|-----|-----|-----|-----|------|------|------|
| 1.60V    | 30.9  | 19.7  | 14.5  | 13.3 | 8.5 | 6.0 | 4.0 | 2.7 | 2.38 | 1.27 | 0.29 |
| 1.67V    | 30.3  | 19.4  | 14.2  | 13.1 | 8.3 | 5.8 | 4.0 | 2.6 | 2.33 | 1.25 | 0.28 |
| 1.70V    | 29.8  | 19.0  | 14.0  | 12.8 | 8.2 | 5.7 | 3.9 | 2.6 | 2.28 | 1.22 | 0.28 |
| 1.75V    | 29.2  | 18.6  | 13.7  | 12.6 | 8.0 | 5.6 | 3.8 | 2.5 | 2.26 | 1.20 | 0.27 |
| 1.80V    | 28.1  | 17.9  | 13.2  | 12.1 | 7.7 | 5.4 | 3.7 | 2.4 | 2.18 | 1.19 | 0.27 |

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

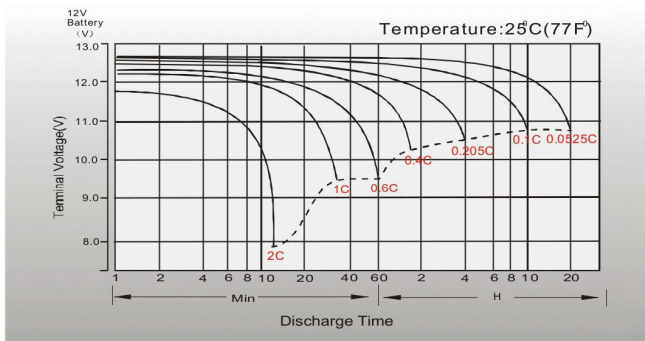
| F.V/Time | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h  | 8h  | 10h | 20h | 100h |
|----------|-------|-------|-------|------|------|------|-----|-----|-----|-----|------|
| 1.60V    | 59.4  | 38.0  | 27.9  | 25.6 | 16.3 | 11.4 | 7.8 | 5.1 | 4.6 | 2.5 | 0.55 |
| 1.67V    | 58.4  | 37.3  | 27.4  | 25.2 | 16.0 | 11.2 | 7.6 | 5.0 | 4.5 | 2.4 | 0.54 |
| 1.70V    | 57.3  | 36.6  | 26.9  | 24.7 | 15.7 | 11.0 | 7.5 | 4.9 | 4.4 | 2.4 | 0.53 |
| 1.75V    | 56.2  | 35.9  | 26.4  | 24.2 | 15.4 | 10.8 | 7.3 | 4.8 | 4.3 | 2.4 | 0.52 |
| 1.80V    | 54.0  | 34.5  | 25.4  | 23.3 | 14.8 | 10.4 | 7.1 | 4.7 | 4.2 | 2.3 | 0.51 |

**EDC12-24 (12V 24Ah)**

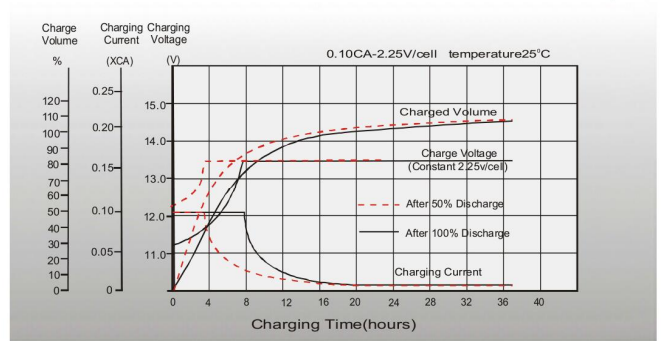
**Dimensions**



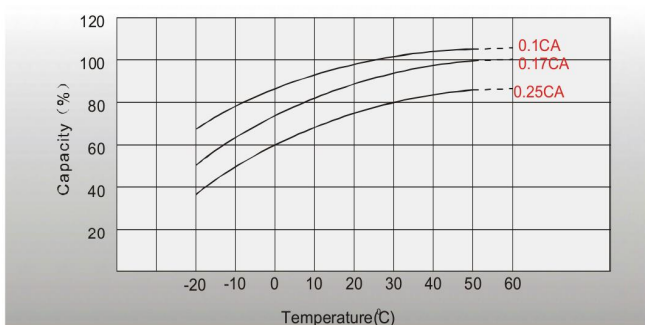
**Discharge Characteristics**



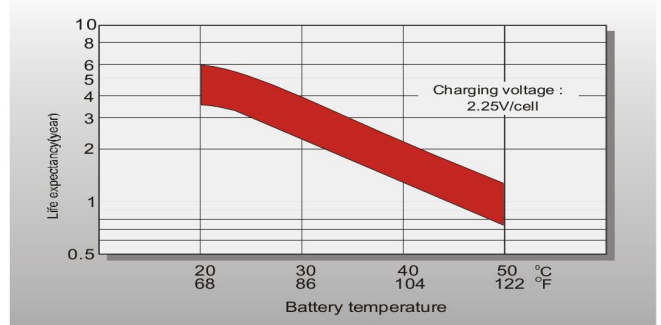
**Float Charging Characteristics**



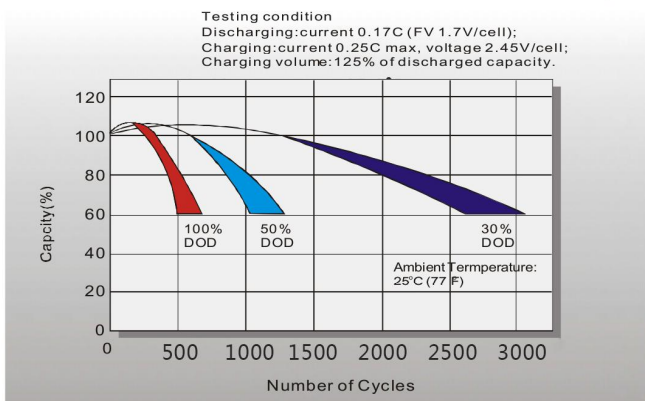
**Temperature Effects in Relation to Battery Capacity**



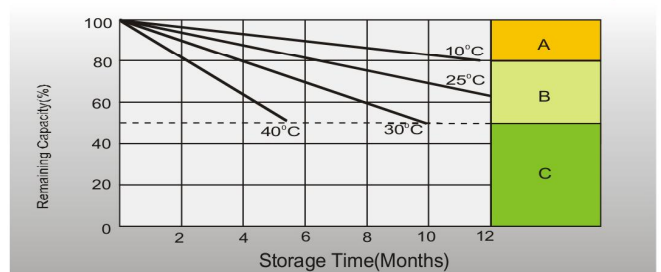
**Effect of Temperature on Long Term Float Life**



**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.