

# KBC12750 12V 75Ah



The Kaise cyclic batteries were developed for deep discharges with very heavy non-porous battery plates to withstand major discharging and charging cycles (deep cycle). These batteries use different chemistry combinations for the plates with active paste material and a slightly stronger than normal electrolyte, which allows for a much longer life in deep cycle applications.



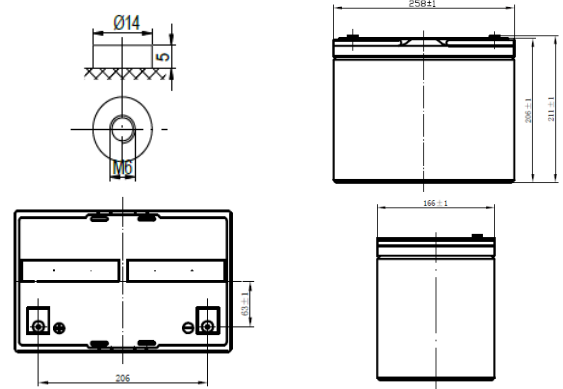
## Performance Characteristics

|                                  |  |                                    |
|----------------------------------|--|------------------------------------|
| Nominal Voltage                  | 12V  |                                    |
| Dimensions                       | Length (mm / inch)   | 258 / 10.16                        |
|                                  | Width (mm / inch)  | 166 / 6.54                         |
|                                  | Height (mm / inch)   | 206 / 8.11                         |
|                                  | Total Height (mm / inch)   | 215 / 8.46                         |
| Approx Weight                    | (Kg / lbs) 24.0 / 52.9   |                                    |
| Design Life                      | 10 years   |                                    |
| Terminal                         | M6   |                                    |
| Container Material               | ABS  |                                    |
| Rated Capacity                   | 74.8Ah / 7.48A   | (10hr, 1.70V / cell, 25°C / 77°F)  |
|                                  | 46.2Ah / 4.62A   | (1hr, 1.70V / cell, 25°C / 77°F)   |
|                                  | 25.3Ah / 15.2A   | (10min, 1.70V / cell, 25°C / 77°F) |
| Max. Discharge Current           | 700A (5s)  |                                    |
| Internal Resistance              | Approx 5.7mΩ   |                                    |
| Operating Temp. Range            | Discharge : -15 ~ 55°C (5 ~ 131°F)   |                                    |
|                                  | Charge : 0 ~ 40°C (32 ~ 104°F)   |                                    |
|                                  | Storage : -15 ~ 40°C (5 ~ 104°F)   |                                    |
| Nominal Operating Temp. Range    | 25 ± 3°C (77 ± 5°F)  |                                    |
| Cycle Use                        | Initial Charging Current less than 15A   |                                    |
|                                  | Voltage: 2.30VPC ~ 2.35VPC at 25°C (77°F)  |                                    |
|                                  | Temp. Coefficient: -30mV/°C  |                                    |
| Standby Use                      | Initial Charging Current less than 15A   |                                    |
|                                  | Voltage: 2.25VPC ~ 2.30VPC 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                   | Fully charged Kaise Deep Cycle Series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                                    |

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

| Volts/cell | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|------------|-------|-------|-------|------|------|------|------|------|
| 1.80V      | 133   | 109   | 71.3  | 42.8 | 19.6 | 13.2 | 7.41 | 3.75 |
| 1.75V      | 145   | 114   | 71.8  | 44.6 | 20.4 | 13.4 | 7.45 | 3.80 |
| 1.70V      | 152   | 118   | 75.1  | 46.2 | 20.8 | 13.8 | 7.48 | 3.85 |
| 1.60V      | 171   | 133   | 79.8  | 49.5 | 21.6 | 14.2 | 7.54 | 3.94 |

## Dimensions and Terminal (Unit: mm (inches))



## Applications

- Solar power systems
- Electric wheel chairs
- Golf carts
- Maritime equipment
- Power plants
- Railway systems
- Telecommunications systems
- Cable TV systems
- Emergency power systems

## Certifications

ISO 9001:2008 ISO 14001:2008



## Discharge Current vs. Discharge Voltage

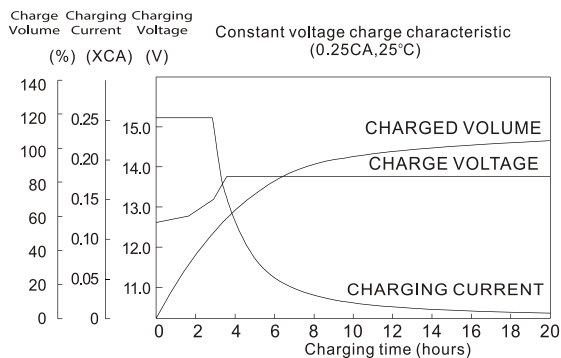
| Final discharge voltage V/CELL | 1.8            | 1.75                    | 1.7                      | 1.6          |
|--------------------------------|----------------|-------------------------|--------------------------|--------------|
| Discharge current (A)          | $I \leq 0.1CA$ | $0.25CA \geq I > 0.1CA$ | $0.55CA \geq I > 0.25CA$ | $I > 0.55CA$ |

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

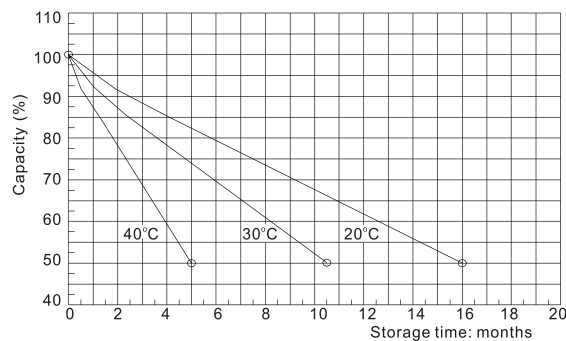
| Volts/cell | 10min | 15min | 30min | 1h   | 2h   | 3h   | 5h   |
|------------|-------|-------|-------|------|------|------|------|
| 1.80V      | 251   | 206   | 138   | 82.9 | 49.0 | 37.6 | 25.7 |
| 1.75V      | 263   | 216   | 139   | 85.2 | 49.7 | 37.9 | 25.9 |
| 1.70V      | 278   | 230   | 141   | 88.5 | 50.9 | 38.5 | 25.9 |
| 1.60V      | 301   | 239   | 154   | 94.3 | 53.4 | 39.8 | 26.7 |

(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

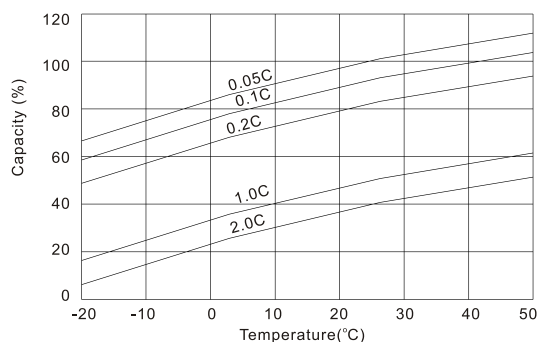
## Charging Characteristics (standby use)



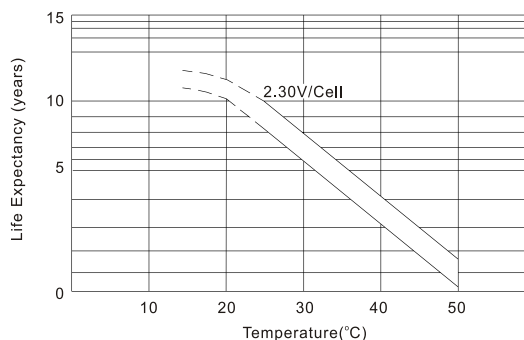
## Self Discharge Characteristics



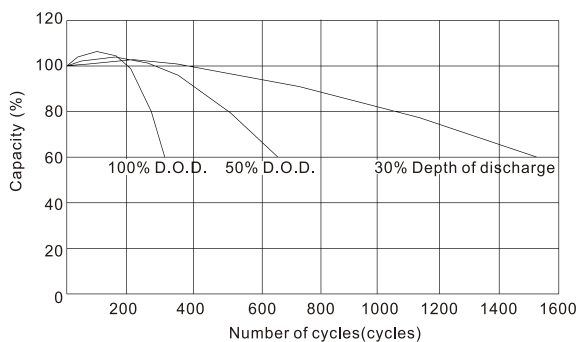
## Temperature Effects in Relation to Battery Capacity



## Temperature Effects on Float Life



## Cycle Life in Relation to Depth of Discharge



IMPORTANT NOTE: The specifications presented herein are subject to revision without notice.

