# 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.

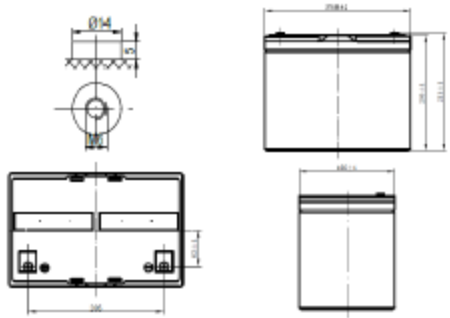
## Performance Characteristics

| | | |
|---|---|---|
| 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 / 46.2A | (1hr, 1.70V / cell, 25°C / 77°F) |
| | 25.3Ah / 152A | (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: 2.30V/PC– 2.35V/PC at 25°C (77°F) | |
| | Temp. Coefficient: -30mV/°C | |
| Standby Use | Initial Charging Current less than 15A | |
| | Voltage: 2.25V/PC – 2.30V/PC 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 ≤ 0.1CA | 0.25CA ≥ I > 0.1CA | 0.55CA ≥ 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 mimimum values.

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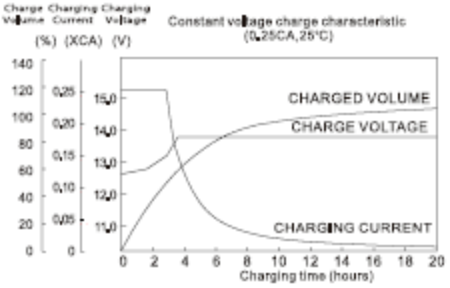
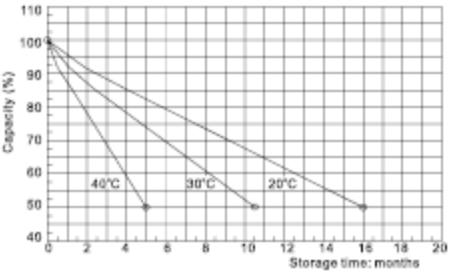
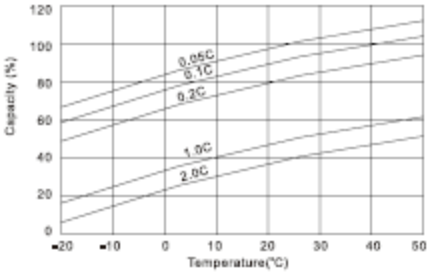
## Charging Characteristics (standby use)



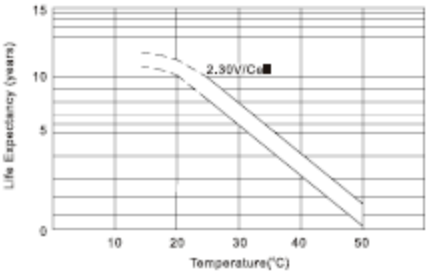

## Self Discharge Characteristics



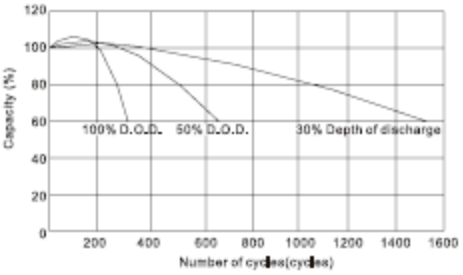

## Temperature Effects in Relation to Battery Capacity




## 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.