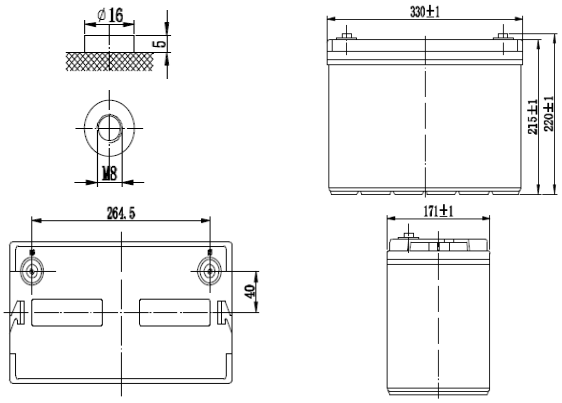
# MKBC121000 12V 100Ah

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) | 330 / 12.99 |
| | Width (mm / inch) | 171 / 6.73 |
| | Height (mm / inch) | 215 / 8.46 |
| | Total Height (mm / inch) | 220 / 8.66 |
| Approx Weight | (Kg / lbs) | 32 / 70.5 |
| Design Life | 10 years | |
| Terminal | M8 | |
| Container Material | ABS | |
| Rated Capacity | 96.5Ah / 9.65A | (10hr, 1.70V / cell, 25ºC / 77ºF) |
| | 60.6Ah / 60.6A | (1hr, 1.70V / cell, 25ºC / 77ºF) |
| | 32Ah / 192A | (10min, 1.70V / cell, 25ºC / 77ºF) |
| Max. Discharge Current | 900A (5s) | |
| Internal Resistance | Approx 5mΩ | |
| Operating Temp. Range | Discharge : -15 ~ 55ºC (5 ~131ºF) | |
| | Charge : 0 ~ 40ºC (32 ~ 104ºF) | |
| | Storage : -15 ~ 40ºC (5 ~ 104ºF) | |
| Nominal Operating Temp. Range | 25 ± 3ºC (77 ± 5ºF) | |
| Cycle Use | Initial Charging Current less than 20A | |
| | Voltage: 2.30VPC~ 2.35VPC at 25ºC (77ºF) | |
| | Temp. Coefficient: -30mV/ºC | |
| Standby Use | Initial Charging Current less than 20A | |
| | Voltage: 2.25VPC ~ 2.30VPC at 25ºC (77ºF) | |
| | Temp. Coefficient: -20mV/ºC | |
| Capacity affected by Temperature | 40ºC (104ºF) | 103% |
| | 25ºC (77ºF) | 100% |
| | 0ºC (32ºF) | 86% |
| Self Discharge | Fully charged Kaise Deep Cycle Series batteries may be stored for up to 6 months at 25ºC (77ºF) and then a freshening charge is required. For higher temperatures the time interval will be shorter. | |

## 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 Current (Amperes) at 77ºF (25ºC)

| Volts/cell | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|
| 1.80V | 168 | 139 | 88.7 | 56.5 | 25.1 | 17.1 | 9.50 | 5.00 |
| 1.75V | 180 | 148 | 90.7 | 59.6 | 26.6 | 17.4 | 9.60 | 5.05 |
| 1.70V | 192 | 159 | 93.6 | 60.6 | 26.9 | 17.9 | 9.65 | 5.10 |
| 1.60V | 220 | 180 | 105 | 65.2 | 27.6 | 18.9 | 9.75 | 5.20 |

## Discharge Constant Power (Watts per cell) at 77ºF (25ºC)

| Volts/cell | 10min | 15min | 30min | 1h | 2h | 3h | 5h |
|---|---|---|---|---|---|---|---|
| 1.80V | 316 | 271 | 167 | 102 | 61.7 | 48.0 | 33.8 |
| 1.75V | 339 | 285 | 173 | 109 | 63.7 | 48.6 | 34.2 |
| 1.70V | 346 | 290 | 178 | 112 | 65.9 | 50.4 | 34.8 |
| 1.60V | 376 | 311 | 194 | 122 | 69.7 | 52.3 | 35.6 |

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

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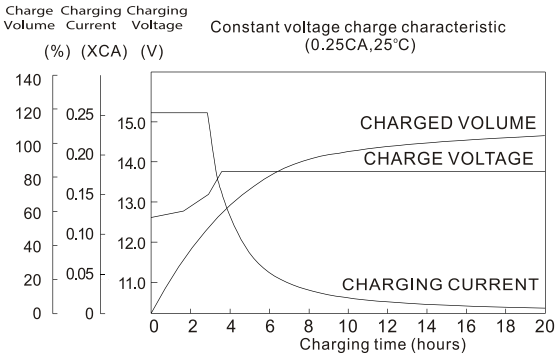
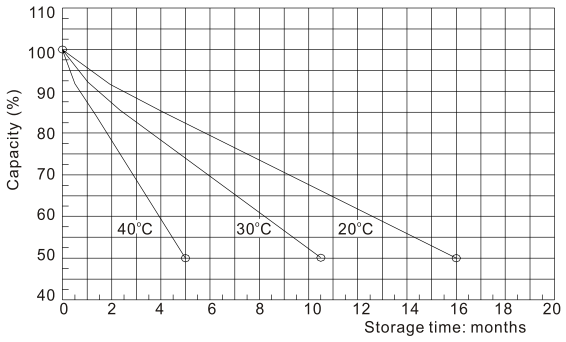
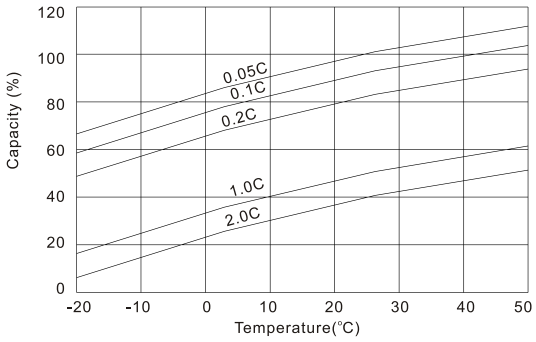
## Charging Characteristics (standby use)



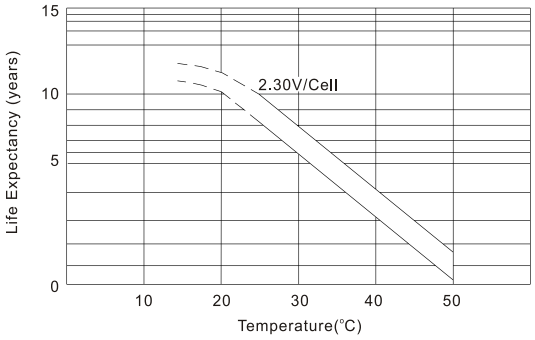

## Self Discharge Characteristics



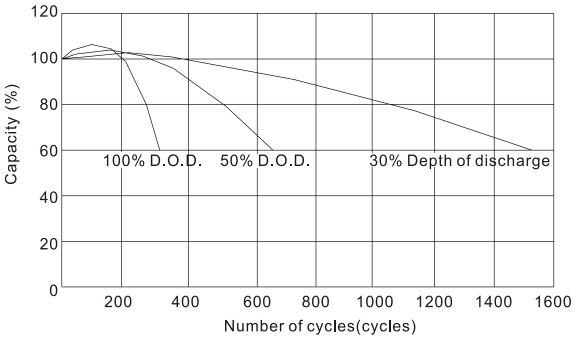

## Temperature Effects in Relation to Battery Capacity




## 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.