

KBC121000 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

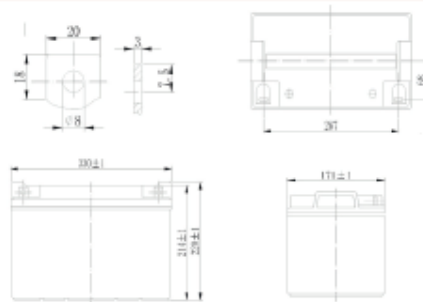
| | | |
|----------------------------------|--|-----------------------------------|
| Nominal Voltage | 12V | |
| Dimensions | Length (mm / inch) | 330 / 12.99 |
| | Width (mm / inch) | 171 / 6.73 |
| | Height (mm / inch) | 215 / 8.46 |
| | Total Height (mm / inch) | 220 / 8.66 |
| Approx. Weight | (Kg / lbs) 32 / 70.5 | |
| Design Life | 10 years | |
| Terminal | M8 | |
| Container Material | ABS | |
| Rated Capacity | 100Ah / 5.00A | (10hr, 11.8V / cell, 25°C / 77°F) |
| | 95.0Ah / 9.50A | (1hr, 11.8V / cell, 25°C / 77°F) |
| | 87Ah / 17.4A | (5hr, 11.8V / cell, 25°C / 77°F) |
| | 65.2Ah / 65.2A | (1hr, 9.6V / cell, 25°C / 77°F) |
| | | |
| Max. Discharge Current | 90A (5s) | |
| Internal Resistance | Approx. 5mΩ | |
| Operating Temp. Range | Discharge | -20 - 60°C (-4 - 140°F) |
| | Charge | -10 - 60°C (14 - 140°F) |
| | Storage | -20 - 60°C (-4 - 140°F) |
| Nominal Operating Temp. Range | 25 ± 3°C (77 ± 5°F) | |
| Cycle Use | Initial Charging Current less than 30A | |
| | Voltage: 2.40VPC - 2.45VPC at 25°C (77°F) | |
| | Temp. Coefficient: -30mV/°C | |
| Standby Use | No limit on Initial Charging Current Voltage | |
| | Voltage: 2.20VPC - 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 | 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 |
| 1.65V | 212 | 173 | 101 | 61.6 | 27.4 | 18.2 | 9.70 | 5.15 |
| 1.60V | 220 | 180 | 106 | 65.2 | 27.6 | 18.9 | 9.75 | 5.20 |



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 ≤ 0.10CA | 0.25CA ≥ I > 0.10CA | 0.55CA ≥ I > 0.25CA | I > 0.55CA |

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

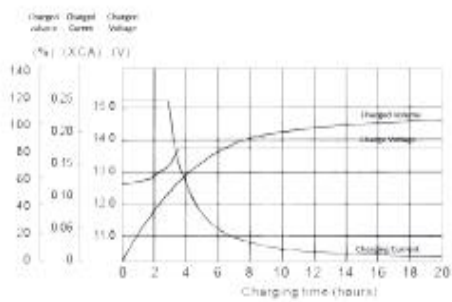
| Volts/cell | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h |
|------------|-------|-------|-------|-------|-----|------|------|------|
| 1.80V | 316 | 271 | 167 | 128 | 102 | 61.7 | 48.0 | 33.8 |
| 1.75V | 339 | 285 | 173 | 131 | 109 | 63.7 | 48.6 | 34.2 |
| 1.70V | 346 | 290 | 178 | 134 | 112 | 65.9 | 50.4 | 34.8 |
| 1.65V | 364 | 306 | 183 | 143 | 116 | 66.9 | 50.7 | 35.2 |
| 1.60V | 376 | 311 | 194 | 147 | 122 | 69.7 | 52.3 | 35.6 |

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

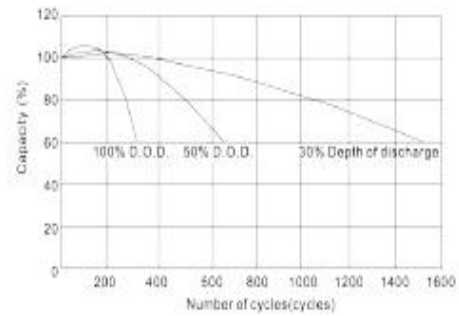
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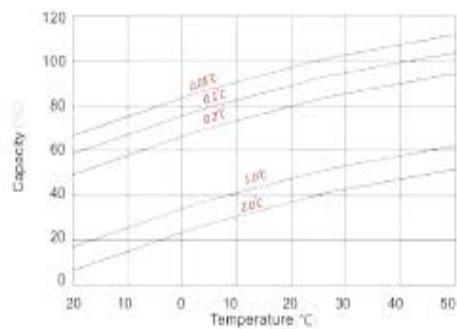
Charging Characteristics (standby use)



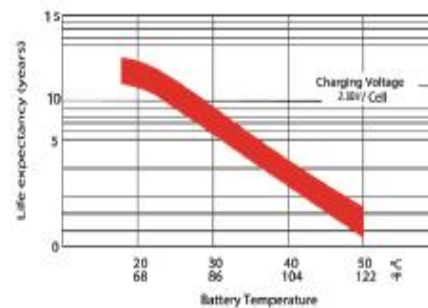
Cycle Life in Relation to Depth of Discharge



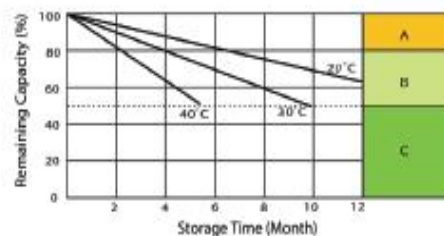
Temperature Effects in Relation to Battery Capacity



Temperature Effects on Float Life



Self Discharge Characteristics



- A** With switch regulator (two-step controller) charge in curve max. charge voltage for max. 2 hrs/dag then switch over to constant charge.
- B** Standard charge without switching.
- C** Best charge (Equalizing charge with external generator) charge in curve constant charge for max. 5 hrs/month, then switch over to curve Standard charge.

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