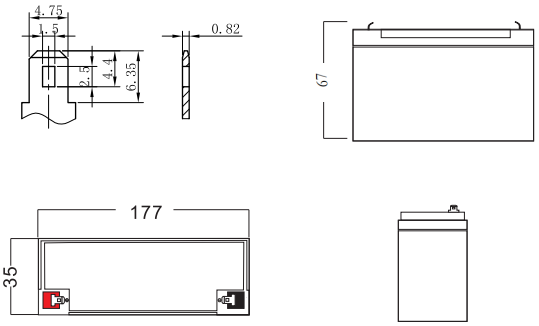
# KB1223 12V 2.3Ah

The KB Standard series consists in VRLA batteries - AGM technology (Absorbent Glass Mat), with a design life of 3-5 years and it is designed for general applications such as UPS, telecommunications and electrical applications.

## Performance Characteristics

| | | |
|---|---|---|
| Nominal Voltage | 12V | |
| Dimensions | Length (mm / inch) | 177 / 6.97 |
| | Width (mm / inch) | 35 / 1.38 |
| | Height (mm / inch) | 62 / 2.44 |
| | Total Height (mm / inch) | 67 / 2.64 |
| Approx Weight | (Kg / lbs) | 0.88 / 1.95 |
| Design Life | 5 years | |
| Terminal | F1 | |
| Container Material | ABS-UL94HB (FR: flame retardant UL-94V0 on request) | |
| Rated Capacity | 2.30Ah / 0.115A | (20hr, 1.75V / cell, 25ºC / 77ºF) |
| | 2.16Ah / 0.216A | (10hr, 175V / cell, 25ºC / 77ºF) |
| | 2.00Ah / 0.400A | (5hr, 1.75V / cell, 25ºC / 77ºF) |
| | 1.52Ah / 1.52A | (1hr, 1.60V / cell, 25ºC / 77ºF) |
| Max. Discharge Current | 34.5A (5s) | |
| Internal Resistance | Approx 90mΩ | |
| Operating Temp. Range | Discharge : -20 ~ 50ºC (-4 ~122ºF) | |
| | Charge : -20 ~ 50ºC (-4 ~ 122ºF) | |
| | Storage : -20 ~ 50ºC (-4 ~ 122ºF) | |
| Cycle Use | Initial Charging Current less than 0.58A | |
| | Voltage: 14.4V ~ 15.0A at 25ºC (77ºF) | |
| | Temp. Coefficient: -30mV/ºC | |
| Standby Use | Initial Charging Current less than 0.58A | |
| | Voltage: 13.5V ~ 13.8V at 25ºC (77ºF) | |
| | Temp. Coefficient: -180mV/ºC | |
| Capacity affected by Temperature | 40ºC (104ºF) | 103% |
| | 25ºC (77ºF) | 100% |
| | 0ºC (32ºF) | 86% |
| Self Discharge | Fully charged Kaise Standard 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

Alarm systems
Cable television
Communications Equipment
Control Equipment
Computers
Electronic Cash Registers
Electric Test Equipment
Emergency lighting systems
Fire & Security
Geophysical equipment
Marine equipment
Medical equipment
Micro processor based office machines
Portable cine & Video lights
Solar powered systems
Telecommunications systems
Television & Video recorders
Toys
Uninterruptible power supply systems
Vending machines

## Certifications

ISO 9001 / ISO 14001

## 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 25ºC (77ºF )

| Volts/cell | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|
| 1.80V | 6.33 | 4.81 | 3.29 | 2.53 | 1.29 | 0.564 | 0.384 | 0.212 | 0.110 |
| 1.75V | 6.88 | 5.11 | 3.54 | 2.62 | 1.33 | 0.596 | 0.400 | 0.216 | 0.115 |
| 1.70V | 7.41 | 5.36 | 3.80 | 2.68 | 1.38 | 0.605 | 0.419 | 0.221 | 0.117 |
| 1.65V | 9.04 | 5.70 | 4.07 | 2.76 | 1.43 | 0.616 | 0.423 | 0.225 | 0.120 |
| 1.60V | 9.11 | 5.96 | 4.44 | 2.91 | 1.52 | 0.635 | 0.432 | 0.228 | 0.122 |

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

| Volts/cell | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 5h |
|---|---|---|---|---|---|---|---|---|
| 1.80V | 11.7 | 9.24 | 6.71 | 4.78 | 2.43 | 1.49 | 1.10 | 0.744 |
| 1.75V | 13.1 | 9.55 | 7.02 | 4.81 | 2.46 | 1.50 | 1.13 | 0.763 |
| 1.70V | 14.4 | 9.85 | 7.28 | 4.86 | 2.54 | 1.54 | 1.15 | 0.778 |
| 1.65V | 15.8 | 10.2 | 7.63 | 4.88 | 2.62 | 1.57 | 1.17 | 0.801 |
| 1.60V | 17.1 | 10.7 | 8.13 | 4.91 | 2.78 | 1.63 | 1.20 | 0.817 |

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

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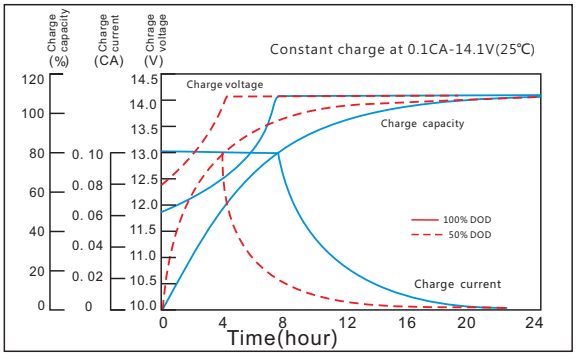
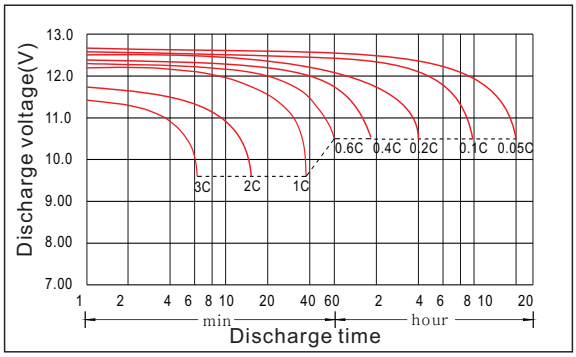
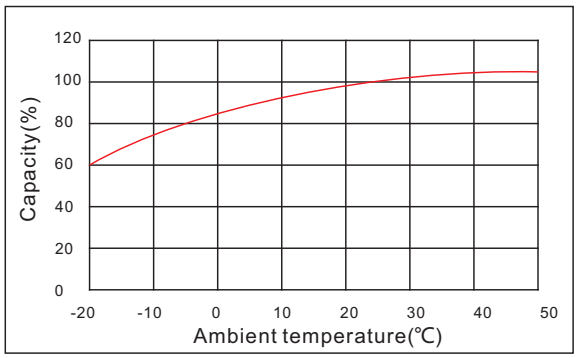
## Charging Characteristics



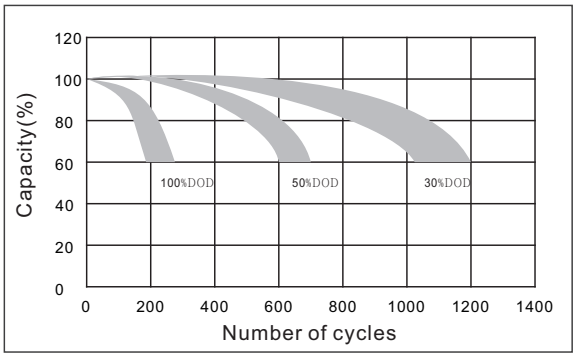

## Discharge Characteristic



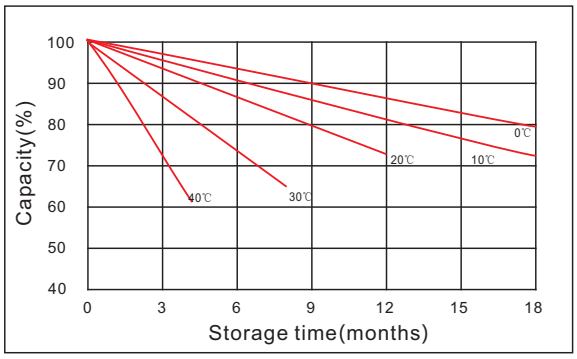

## The effect of temperature on capacity



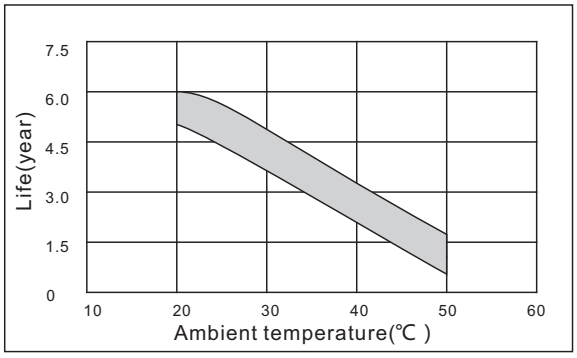

## The effect of discharge depth on cycle life




## Curves of self-discharge




## The effect of temperature on float life




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

2025/V/K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