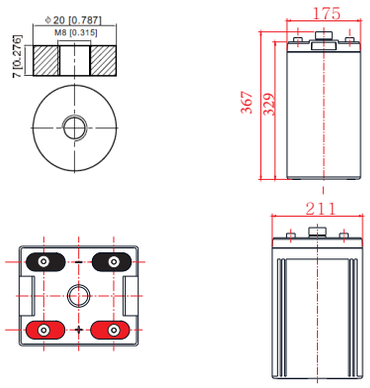
# KB2400 2V 400Ah

The Kaise Ultra Long Life series of VRLA batteries is known for having the most reliable and highest quality of the entire industry. Built with AGM technology, these batteries reach a service life of 12 years.

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




## Performance Characteristics

| | | |
|---|---|---|
| Nominal Voltage | 2V | |
| Dimensions | Length (mm / inch) | 211 / 8.31 |
| | Width (mm / inch) | 175 / 6.89 |
| | Height (mm / inch) | 329 / 13.0 |
| | Total Height (mm / inch) | 367 / 14.4 |
| Approx. Weight | (Kg / lbs) | 25.2 / 55.6 |
| Design Life | 12 years | |
| Terminal | M8 | |
| Container Material | ABS | |
| Rated Capacity | 400.0Ah / 40.0 A | (10hr, 1.80V/cell, 25ºC / 77ºF) |
| | 364.5Ah / 72.9 A | (5hr, 1.75V/cell, 25ºC / 77ºF) |
| | 318.0Ah / 106.0 A | (3hr, 1.75V/cell, 25ºC / 77ºF) |
| | 267.0Ah / 267.0 A | (1hr, 1.60V/cell, 25ºC / 77ºF) |
| Internal Resistance | Approx 0.42mΩ | |
| Operating Temp. Range | Discharge : -20 ~ 50ºC (-4 ~ 122ºF) | |
| | Charge : -20 ~ 50ºC (-4 ~ 122ºF) | |
| | Storage : -20 ~ 50ºC (-4 ~ 122ºF) | |
| Max. Discharge Current | 4000A (5S) | |
| Cycle Use | Initial Charging Current less than 80.0A | |
| | Voltage: 2.40VPC ~ 2.50VPC at 25ºC (77ºF) | |
| | Temp. Coefficient: -5mV/ºC | |
| Standby Use | Initial Charging Current less than 80.0A | |
| | Voltage: 2.23VPC ~ 2.27VPC at 25ºC (77ºF) | |
| | Temp. Coefficient: -3mV/ºC | |
| Capacity affected by Temperature | 40ºC (104ºF) | 103% |
| | 25ºC (77ºF) | 100% |
| | 0ºC (32ºF) | 86% |
| Self Discharge | Fully charged Kaise Ultra Long Life 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. | |

## Applications

UPS / EPS
Renewable Energy
Alarm systems
Electric Test Equipment
Emergency lighting systems
Marine equipment
Telecommunications systems

## 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 |

## Constant Current Discharge (Amperes) at 25ºC (77ºF )

| Volts/cell | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|
| 1.80V | 499 | 326 | 216 | 103 | 71.2 | 40.0 | 21.4 |
| 1.75V | 552 | 349 | 230 | 106 | 72.9 | 41.7 | 22.3 |
| 1.70V | 607 | 375 | 242 | 109 | 75.0 | 42.3 | 22.6 |
| 1.65V | 646 | 400 | 253 | 112 | 75.7 | 42.9 | 23.0 |
| 1.60V | 703 | 426 | 267 | 115 | 77.6 | 43.3 | 23.2 |

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

| Volts/cell | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|
| 1.80V | 1018 | 669 | 437 | 209 | 147 | 84.3 | 45.1 |
| 1.75V | 1083 | 693 | 465 | 216 | 152 | 85.6 | 45.8 |
| 1.70V | 1132 | 718 | 483 | 225 | 156 | 86.9 | 46.5 |
| 1.65V | 1190 | 748 | 509 | 233 | 159 | 89.6 | 47.9 |
| 1.60V | 1242 | 778 | 549 | 242 | 164 | 91.6 | 49.0 |

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

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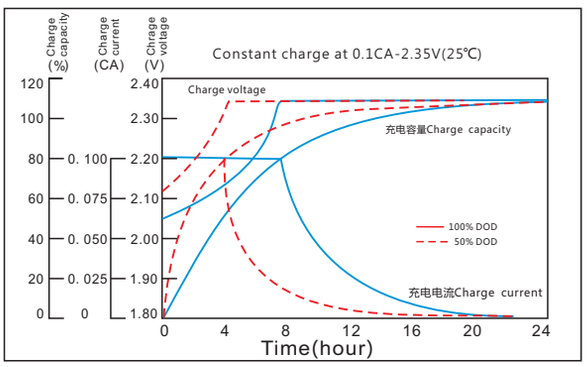
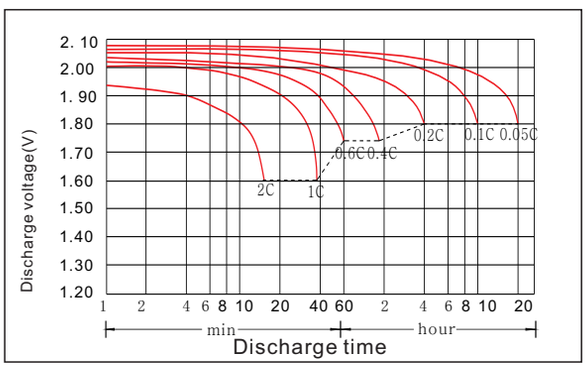
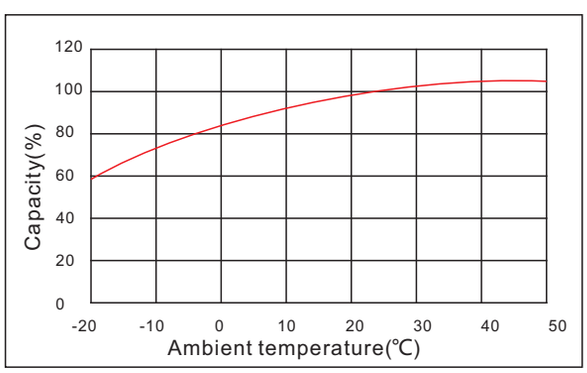
## Charging Characteristic



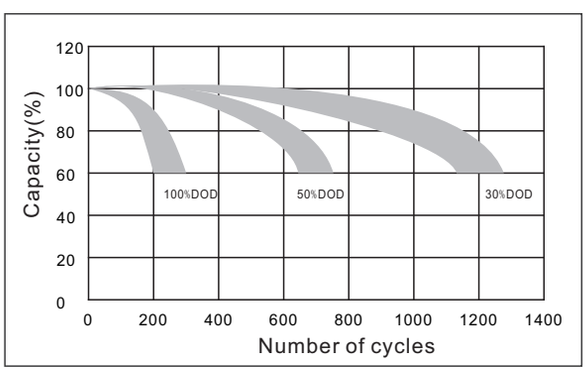

## Self Discharge Characteristics



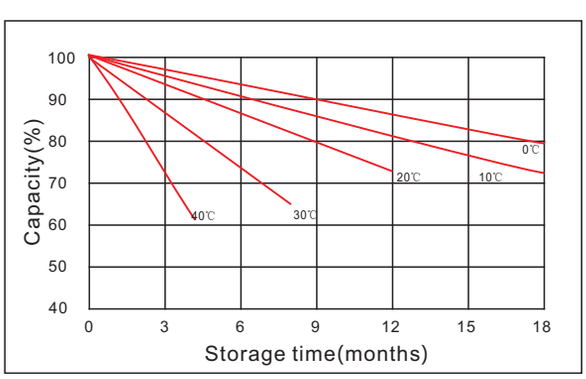

## The effect of temperature on capacity



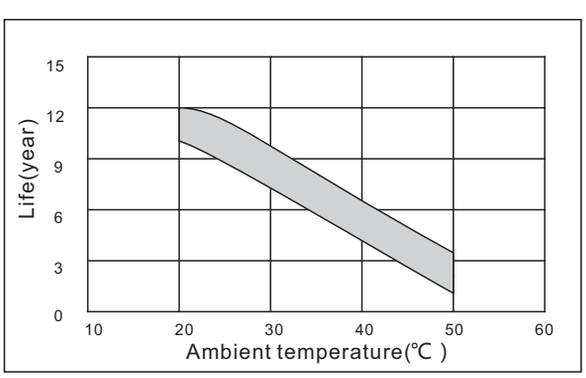

## The effect of discharge depth on cycle life




## Curves of self-discharge




## The effect of temperature on float life




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

2024V1/K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