

# KB612 6V 1.2Ah



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.



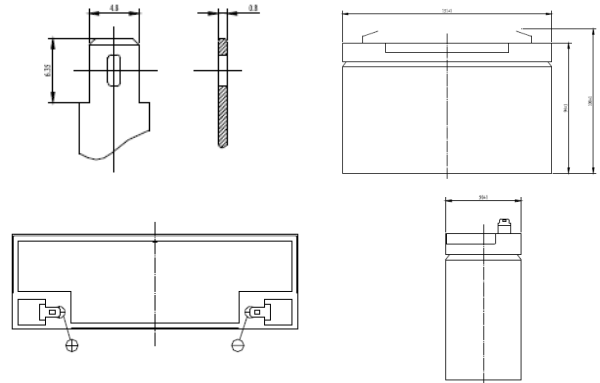
## Performance Characteristics

|                                  |  |                                   |  |
|----------------------------------|--|-----------------------------------|--|
| Nominal Voltage                  | 6V   |                                   |  |
| Dimensions                       | Length (mm / inch)   | 97 / 3.82                         |  |
|                                  | Width (mm / inch)  | 24 / 0.94                         |  |
|                                  | Height (mm / inch)   | 52 / 2.05                         |  |
|                                  | Total Height (mm / inch)   | 58 / 2.28                         |  |
| Approx Weight                    | (Kg / lbs)   | 0.31 / 0.68                       |  |
| Design Life                      | 5 years  |                                   |  |
| Terminal                         | F1   |                                   |  |
| Container Material               | ABS  |                                   |  |
| Rated Capacity                   | 1.2Ah / 0.06A  | (20hr, 1.80V / cell, 25°C / 77°F) |  |
|                                  | 1.1Ah / 0.11A  | (10hr, 1.80V / cell, 25°C / 77°F) |  |
|                                  | 1.05Ah / 0.21A   | (5hr, 1.75V / cell, 25°C / 77°F)  |  |
|                                  | 0.82Ah / 0.82A   | (1hr, 1.60V / cell, 25°C / 77°F)  |  |
| Max. Discharge Current           | 18A (5s)   |                                   |  |
| Internal Resistance              | Approx 50mΩ  |                                   |  |
| Operating Temp. Range            | Discharge : -20 ~ 60°C (-4 ~ 140°F)  |                                   |  |
|                                  | Charge : -10 ~ 60°C (14 ~ 140°F)   |                                   |  |
|                                  | Storage : -20 ~ 60°C (-20 ~ 140°F)   |                                   |  |
| Nominal Operating Temp. Range    | 25 ± 3°C (77 ± 5°F)  |                                   |  |
| Cycle Use                        | Initial Charging Current less than 0.24A   |                                   |  |
|                                  | Voltage: 7.2V ~ 7.35V at 25°C (77°F)   |                                   |  |
|                                  | Temp. Coefficient: -15mV/°C  |                                   |  |
| Standby Use                      | Initial Charging Current less than 0.24A   |                                   |  |
|                                  | Voltage: 6.75V ~ 6.9V at 25°C (77°F)   |                                   |  |
|                                  | Temp. Coefficient: -10mV/°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 Standard 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 | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|------------|------|-------|-------|-------|------|------|------|------|------|
| 1.80V      | 3.55 | 2.61  | 1.95  | 1.08  | 0.63 | 0.31 | 0.21 | 0.11 | 0.06 |
| 1.75V      | 4.00 | 2.88  | 2.11  | 1.21  | 0.69 | 0.33 | 0.21 | 0.11 | 0.06 |
| 1.70V      | 4.36 | 3.12  | 2.27  | 1.31  | 0.75 | 0.35 | 0.21 | 0.11 | 0.06 |
| 1.65V      | 4.71 | 3.34  | 2.40  | 1.39  | 0.79 | 0.36 | 0.22 | 0.11 | 0.06 |
| 1.60V      | 5.00 | 3.50  | 2.50  | 1.45  | 0.82 | 0.36 | 0.22 | 0.11 | 0.06 |

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



## Applications

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

## Certifications

ISO 9001:2008 ISO 14001:2008



## Discharge Current vs. Discharge Voltage

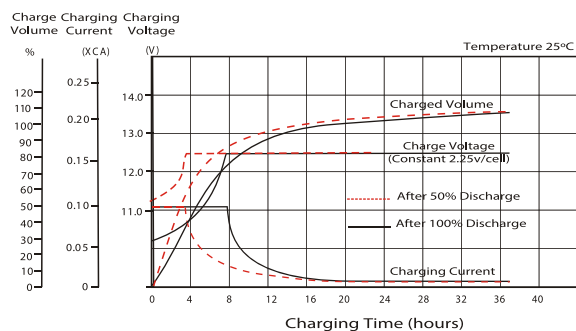
| Final discharge voltage V/CELL | 1.8            | 1.75                    | 1.7                      | 1.6          |
|--------------------------------|----------------|-------------------------|--------------------------|--------------|
| Discharge current [A]          | $I \leq 0.1CA$ | $0.25CA \geq I > 0.1CA$ | $0.55CA \geq I > 0.25CA$ | $I > 0.55CA$ |

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

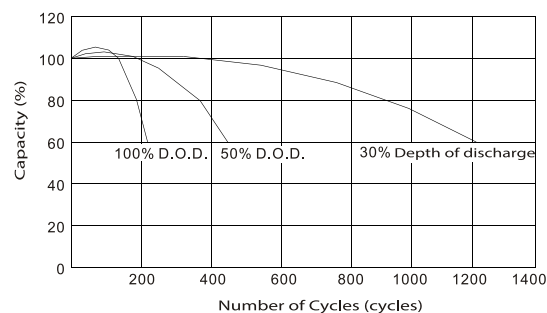
| Volts/cell | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.80V      | 5.84 | 4.56  | 3.61  | 2.13  | 1.52  | 1.21 | 0.73 | 0.54 | 0.48 |
| 1.75V      | 6.44 | 5.02  | 4.02  | 2.34  | 1.71  | 1.37 | 0.83 | 0.61 | 0.48 |
| 1.70V      | 6.93 | 5.40  | 4.33  | 2.50  | 1.87  | 1.47 | 0.90 | 0.65 | 0.48 |
| 1.65V      | 7.38 | 5.73  | 4.58  | 2.63  | 1.99  | 1.58 | 0.96 | 0.69 | 0.50 |
| 1.60V      | 8.80 | 6.02  | 4.80  | 2.75  | 2.08  | 1.64 | 1.00 | 0.72 | 0.50 |

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

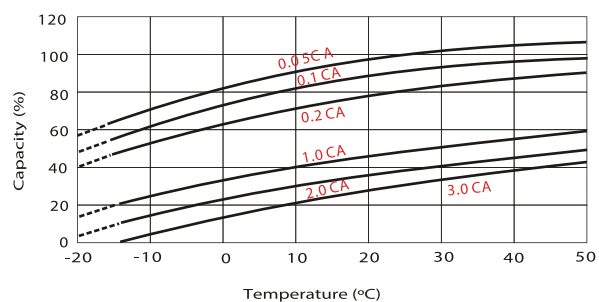
## Charging Characteristics (float use)



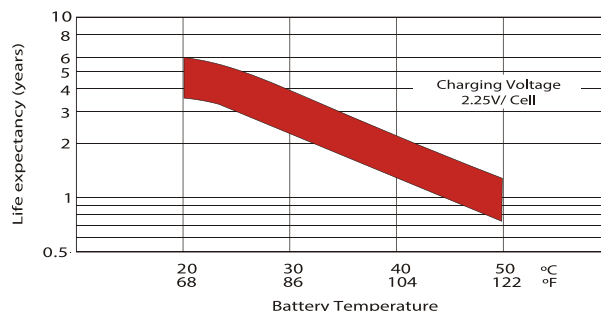
## Cycle Life in Relation to Depth of Discharge



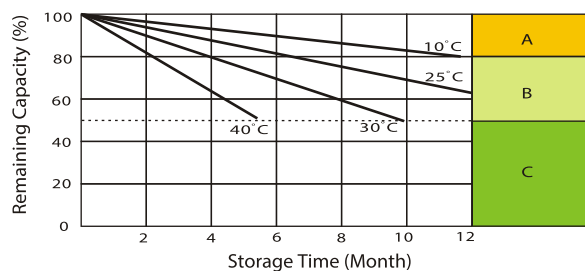
## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics



- A** No supplementary charge required (carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25 CA and constant voltage 2.25V / cell.
  2. Charged for above 20 hours limited current 0.25CA and constant voltage 2.45V / cell.
  3. Charged for 8-10 hours at limited current 0.05 CA.
- C** Supplementary charge often fail to recover the capacity. The battery should never be left standing till this is reached.

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

