# KB1270SECURITY 12V 7.0Ah

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.



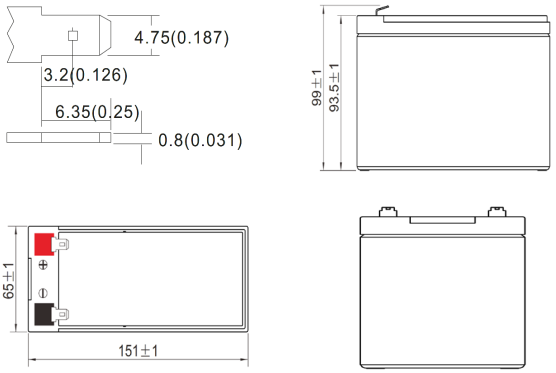

## Performance Characteristics

| | | |
|---|---|---|
| Nominal Voltage | 12V | |
| Dimensions | Length (mm / inch) | 151 / 5.94 |
| | Width (mm / inch) | 65 / 2.54 |
| | Height (mm / inch) | 93.5 / 3.68 |
| | Total Height (mm / inch) | 99 / 3.68 |
| Approx Weight | (Kg / lbs) | 1.82 / 4.01 |
| Design Life | 5 years | |
| Terminal | F1 | |
| Container Material | ABS | |
| Rated Capacity | 6.20Ah / 0.310A | (20hr, 1.80V / cell, 25ºC / 77ºF) |
| | 5.37Ah / 0.671A | (10hr, 1.80V / cell, 25ºC / 77ºF) |
| | 4.88Ah / 0.976A | (5hr, 1.75V / cell, 25ºC / 77ºF) |
| | 3.90Ah / 3.90A | (1hr, 1.60V / cell, 25ºC / 77ºF) |
| Max. Discharge Current | 93.0 A(5s) | |
| Internal Resistance | Fully Charged battey 77ºf(25ºC) | ≤ 28mOhms |
| Operating Temp. Range | Discharge : -15 ~ 50ºC (5 ~122ºF) | |
| | 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 1.86A | |
| | Voltage: 14.4V ~ 15.0V at 25ºC (77ºF) | |
| | Temp. Coefficient: -30mV/ºC | |
| Standby Use | No limit on Initial Charging Current | |
| | Voltage: 13.5V ~ 13.8V 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 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. | |

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

| Volts/cell | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|
| 1.80V | 14.3 | 11.1 | 8.72 | 5.68 | 3.37 | 1.47 | 0.953 | 0.571 | 0.310 |
| 1.75V | 16.1 | 12.2 | 9.37 | 5.90 | 3.53 | 1.50 | 0.976 | 0.576 | 0.313 |
| 1.70V | 17.8 | 13.3 | 10.0 | 6.16 | 3.64 | 1.54 | 1.00 | 0.582 | 0.319 |
| 1.65V | 19.6 | 14.3 | 10.7 | 6.48 | 3.76 | 1.60 | 1.03 | 0.594 | 0.323 |
| 1.60V | 21.6 | 15.6 | 11.5 | 6.84 | 3.90 | 1.65 | 1.05 | 0.600 | 0.325 |

## 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 9001:2008 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 |

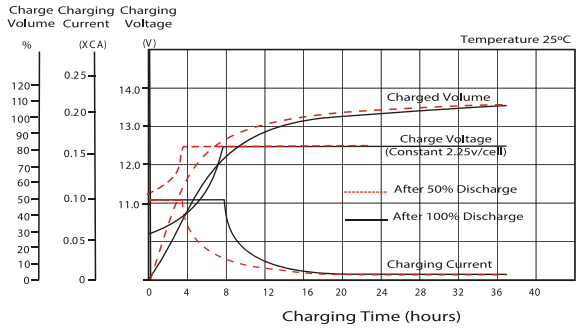
## Discharge Constant Power (Watts per cell) at 77ºF (25ºC)

| Volts/cell | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|
| 1.80V | 26.2 | 20.5 | 16.3 | 10.9 | 6.59 | 2.90 | 1.89 | 1.15 | 0.624 |
| 1.75V | 29.2 | 22.3 | 17.4 | 11.2 | 6.86 | 2.94 | 1.93 | 1.16 | 0.629 |
| 1.70V | 31.8 | 24.1 | 18.4 | 11.6 | 7.06 | 3.02 | 1.97 | 1.17 | 0.641 |
| 1.65V | 34.7 | 25.8 | 19.5 | 12.1 | 7.24 | 3.13 | 2.02 | 1.19 | 0.649 |
| 1.60V | 37.9 | 27.7 | 20.7 | 12.7 | 7.46 | 3.21 | 2.07 | 1.20 | 0.651 |

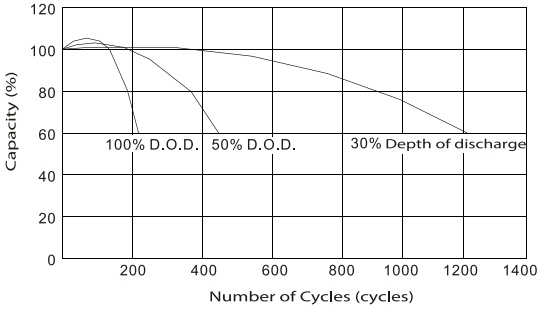
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

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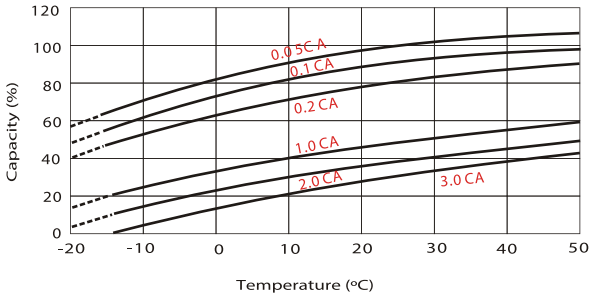
## Charging Characteristics (float use)



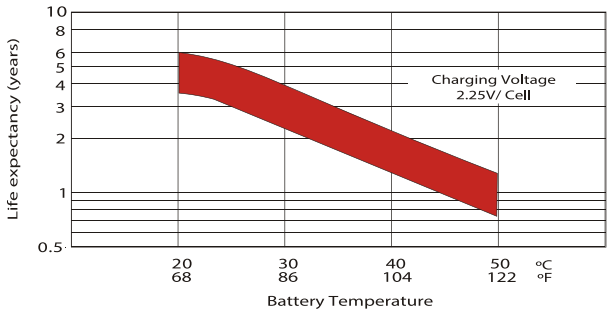

## Cycle Life in Relation to Depth of Discharge



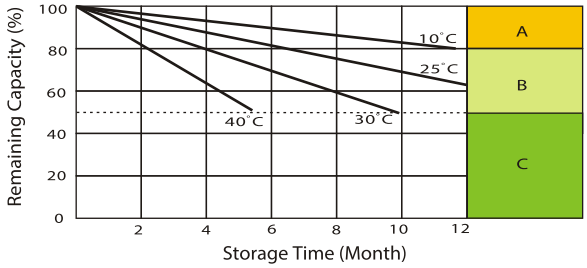

## Temperature Effects in Relation to Battery Capacity




## Effect of Temperature on Long Term Float Life




## Self Discharge Characteristics




**A** No supplementary charge required
(carrry out supplementary charge before use if 100% capacity is required)

**B** Supplementary charge required before use . Optional charging way a below:
1. Charged for above 3 days at limited current 0.25 CA and constant voltage 2.25V / cell.
2. Charged fo above 20 hours limited current 0.25CA and constant voltage 2.45V / cell.
3. Charged for 8-10 hours ar 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.

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Contacto
energy@tempelgroup.com
www.tempelgroup.com



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