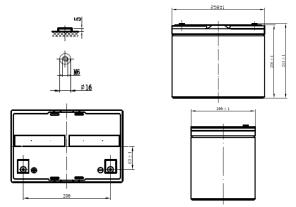
# KBL12750 12V 75Ah



The KAISE LONG LIFE Series 10 years has been designed for different applications, such as UPS, electric and telecommunications applications that require a long useful life.

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



#### **Applications**

# UPS

Telecomunications equipment Solar energy systems Cable TV Power station Marine equipment Military equipment Emergency power systems Railway systems

### Certifications

ISO 9001:2008 ISO 14001:2008



# Discharge Current vs. Discharge Voltage

| Final discharge<br>voltage V/CELL | 1,8     | 1,75                         | 1,7                           | 1,6      |
|-----------------------------------|---------|------------------------------|-------------------------------|----------|
| Discharge current<br>(A)          | ≤ 0,1CA | $0.25$ CA $\ge$ I > $0.1$ CA | $0.55$ CA $\ge$   > $0.25$ CA | > 0.55CA |

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

| Volts/cell | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|------------|-------|-------|-------|-------|------|------|------|------|
| 1.80V      | 251   | 206   | 138   | 104   | 82.9 | 49.0 | 37.6 | 25.7 |
| 1.75V      | 263   | 216   | 139   | 109   | 85.2 | 49.7 | 37.9 | 25.9 |
| 1.70V      | 278   | 230   | 141   | 109   | 88.5 | 50.9 | 38.5 | 25.9 |
| 1.65V      | 288   | 234   | 149   | 116   | 92.2 | 52.1 | 38.8 | 26.5 |
| 1.60V      | 301   | 239   | 154   | 118   | 94.3 | 53.4 | 39.8 | 26.7 |

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

# Performance Characteristics

| Nominal Voltage               | 12V  |                               |  |  |  |
|-------------------------------|--|-------------------------------|--|--|--|
| Dimensions                    | Length (mm / inch)   | 258 / 10.16                   |  |  |  |
|                               | Width (mm / inch)  | 166 / 6.54                    |  |  |  |
|                               | Height (mm / inch)   | 206 / 8.11                    |  |  |  |
|                               | Total Height (mm / inch)                                   | 215 / 8.46                    |  |  |  |
| Approx. Weight                | (Kg / lbs)   | 24.0 / 52.9                   |  |  |  |
| Design Life                   | 10 years   |                               |  |  |  |
| Terminal                      | Mó   |                               |  |  |  |
| Container Material            | ABS  |                               |  |  |  |
| Rated Capacity                | 74.8 Ah / 7.48A  | (10hr, 1.70V/cell, 25ºC/77ºF) |  |  |  |
|                               | 69.0 Ah / 13.8A  | (5hr, 1.70V/cell, 25ºC/77ºF)  |  |  |  |
|                               | 46.2 Ah / 46.2A  | (1hr, 1.70V/cell, 25°C/77°F)  |  |  |  |
| Max. Discharge Current        | 700A (5s)  |                               |  |  |  |
| Internal Resistance           | Approx 5.7m $\Omega$                                       |                               |  |  |  |
| 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 15A.                    |                               |  |  |  |
|                               | Voltage: 2.35VPC ~ 2.4VPC at 25°C (77°F)                   |                               |  |  |  |
|                               | Temp. Coefficient: -30mV/ºC                                |                               |  |  |  |
| Standby Use                   | Initial Charging Current less                              | than 15A.                     |  |  |  |
|                               | 2.25VPC ~ 2.30VPC at 25°C (77°F)                           |                               |  |  |  |
|                               | Temp. Coefficient: -20mV/ºC                                |                               |  |  |  |
| Capacity affected by          | 40°C (104°F)   | 103%                          |  |  |  |
|                               | 25ºC ( 77ºF)   | 100%                          |  |  |  |
|                               | 0°C ( 32°F)  | 86%                           |  |  |  |
| Self Discharge                | Fully charged Kaise Long Life 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.                             |                               |  |  |  |
|                               |  |                               |  |  |  |

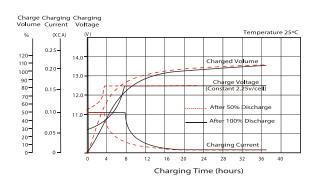
## Constant Current Discharge (Amperes) at 77°F (25°C)

| Volts/cell | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|------------|-------|-------|-------|------|------|------|------|------|
| 1.80V      | 133   | 109   | 71.3  | 42.8 | 19.6 | 13.2 | 7.41 | 3.75 |
| 1.75V      | 145   | 114   | 71.8  | 44.6 | 20.4 | 13.4 | 7.45 | 3.80 |
| 1.70V      | 152   | 118   | 75.1  | 46.2 | 20.8 | 13.8 | 7.48 | 3.85 |
| 1.65V      | 162   | 127   | 76.3  | 46.8 | 21.2 | 14.0 | 7.51 | 3.90 |
| 1.60V      | 171   | 133   | 79.8  | 49.5 | 21.6 | 14.2 | 7.54 | 3.94 |

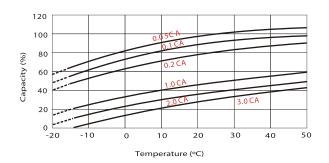
# KBL12750 12V 75Ah



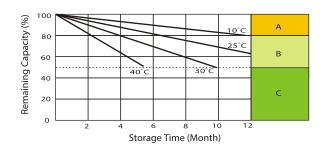
## **Charging Characteristics (float use)**



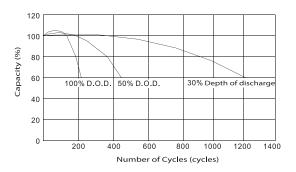
# **Temperature Effects in Relation to Battery Capacity**



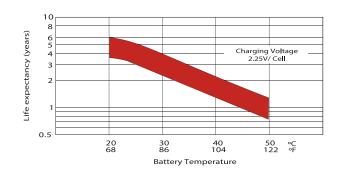
### **Self Discharge Characteristics**



Cycle Life in Relation to Depth of Discharge



## Effect of Temperature on Long Term Float Life





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

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.

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.