

# KBL121200 12V 120Ah



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.

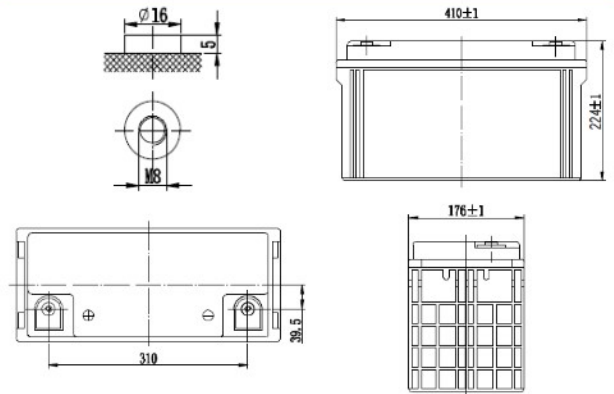
## Performance Characteristics

|                               |   |                                   |
|-------------------------------|---|-----------------------------------|
| Nominal Voltage               | 12V   |                                   |
| Dimensions                    | Length (mm / inch)  | 410 / 16.14                       |
|                               | Width (mm / inch)   | 176 / 6.93                        |
|                               | Height (mm / inch)  | 224 / 8.82                        |
|                               | Total Height (mm / inch)  | 224 / 8.82                        |
| Approx. Weight (Kg / lbs)     | 38 / 83.8   |                                   |
| Design Life                   | 10 years  |                                   |
| Terminal                      | M8  |                                   |
| Container Material            | ABS   |                                   |
| Rated Capacity                | 124Ah / 12.4A   | (10hr, 1.70V / cell, 25°C / 77°F) |
|                               | 105.5Ah / 21.1A   | (5hr, 1.70V / cell, 25°C / 77°F)  |
|                               | 77.4Ah / 7.74A  | (1hr, 1.70V / cell, 25°C / 77°F)  |
| Max. Discharge Current        | 900A (5s)   |                                   |
| Internal Resistance           | Approx 5.2 mΩ   |                                   |
| 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 20A.   |                                   |
|                               | Voltage: 2.30VPC ~ 2.35VPC at 25°C (77°F)   |                                   |
|                               | Temp. Coefficient: -30mV/°C   |                                   |
| Standby Use                   | Initial Charging Current less than 20A.   |                                   |
|                               | 2.25VPC ~ 2.30VPC at 25° C (77°F)   |                                   |
|                               | Temp. Coefficient: -20mV/°C   |                                   |
| Capacity affected by          | 40°C (104°F)  | 103%                              |
|                               | 25°C (77°F)   | 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. |                                   |

## ConstDescarga a Corriente Constante (Amperes) a 77°F (25°C)

| Volts/cell | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|------------|-------|-------|-------|------|------|------|------|------|
| 1.80V      | 221   | 192   | 114   | 72.7 | 29.3 | 20.3 | 12.0 | 6.36 |
| 1.75V      | 236   | 201   | 116   | 75.1 | 30.1 | 20.7 | 12.2 | 6.44 |
| 1.70V      | 251   | 210   | 121   | 77.4 | 30.8 | 21.1 | 12.4 | 6.50 |
| 1.65V      | 266   | 219   | 125   | 79.0 | 31.4 | 21.5 | 12.5 | 6.54 |
| 1.60V      | 281   | 228   | 129   | 79.6 | 32.1 | 21.8 | 12.6 | 6.58 |

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



## Applications

UPS  
Telecommunications 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

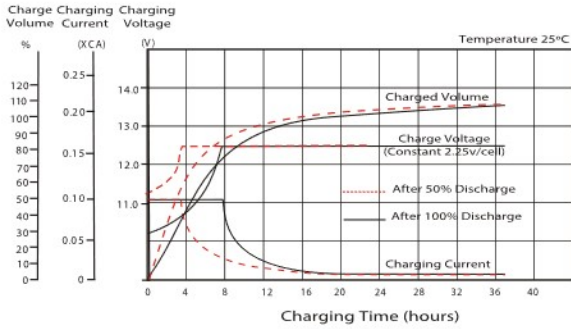
| Final discharge voltage V/CELL | 1.8            | 1.75                    | 1.7                      | 1.6          |
|--------------------------------|----------------|-------------------------|--------------------------|--------------|
| Discharge current (A)          | $I \leq 0.1CA$ | $0.25CA \geq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

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

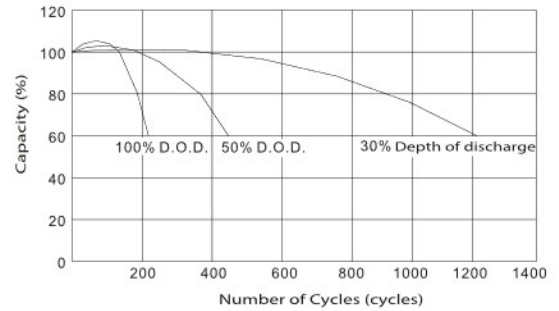
| Volts/cell | 10min | 15min | 30min | 45min | 1h  | 2h   | 3h   | 5h   |
|------------|-------|-------|-------|-------|-----|------|------|------|
| 1.80V      | 402   | 350   | 215   | 158   | 145 | 81.9 | 58.5 | 41.6 |
| 1.75V      | 430   | 363   | 222   | 161   | 150 | 82.7 | 59.5 | 42.0 |
| 1.70V      | 454   | 376   | 230   | 165   | 154 | 84.2 | 60.2 | 42.2 |
| 1.65V      | 479   | 389   | 236   | 168   | 156 | 85.8 | 60.9 | 42.6 |
| 1.60V      | 504   | 402   | 244   | 172   | 159 | 87.4 | 61.6 | 42.8 |

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

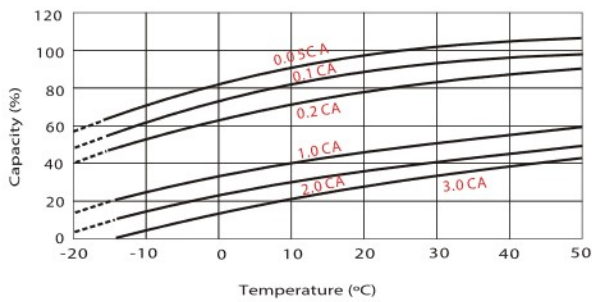
## Charging Characteristics (float use)



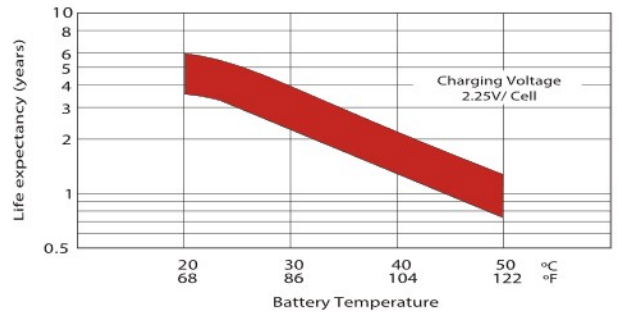
## Cycle Life in Relation to Depth of Discharge



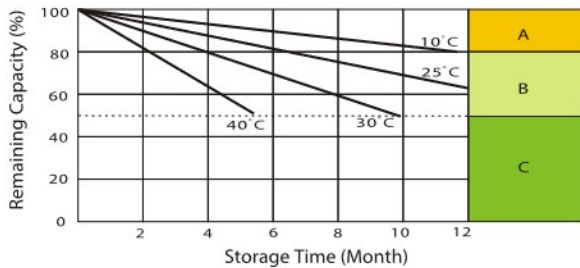
## Temperature Effects in Relation to Battery Capacity



## 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.

NOTA IMPORTANTE: Las especificaciones presentadas en este documento están sujetos a revisión sin previo aviso.

