

# KBL121000 12V 100Ah



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.



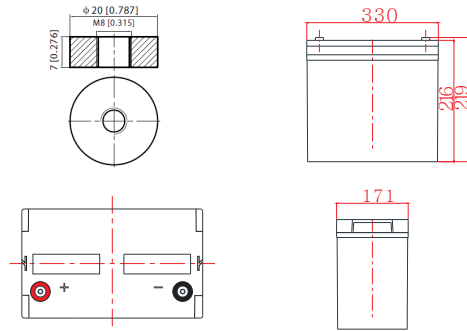
## Performance Characteristics

|                        |   |                                   |
|------------------------|---|-----------------------------------|
| Nominal Voltage        | 12V   |                                   |
| Dimensions             | Length (mm / inch)  | 330 / 12.99                       |
|                        | Width (mm / inch)   | 171 / 6.73                        |
|                        | Height (mm / inch)  | 216 / 8.50                        |
|                        | Total Height (mm / inch)  | 219 / 8.62                        |
| Approx. Weight         | (Kg / lbs) 28 / 61.7  |                                   |
| Design Life            | 10 years  |                                   |
| Terminal               | M8  |                                   |
| Container Material     | ABS   |                                   |
| Rated Capacity         | 100 Ah / 5.00A  | (20hr, 1.75V / cell, 25°C / 77°F) |
|                        | 84.5 Ah / 16.9A   | (5hr, 1.75V / cell, 25°C / 77°F)  |
|                        | 61.8 Ah / 61.8A   | (1hr, 1.70V / cell, 25°C / 77°F)  |
| Max. Discharge Current | 1200A (5s)  |                                   |
| Internal Resistance    | Approx 5.0 mΩ   |                                   |
| Operating Temp. Range  | Discharge : -20 ~ 50°C (-4 ~ 122°F)   |                                   |
|                        | Charge : -20 ~ 50°C (-4 ~ 122°F)  |                                   |
|                        | Storage : -20 ~ 50°C (-4 ~ 122°F)   |                                   |
| Cycle Use              | Initial Charging Current less than 25A.   |                                   |
|                        | Voltage: 14.4V ~ 15.0V at 25°C (77°F)   |                                   |
|                        | Temp. Coefficient: -30mV/°C   |                                   |
| Standby Use            | Initial Charging Current less than 25A.   |                                   |
|                        | Voltage: 13.5V~13.8V at 25° C (77°F)  |                                   |
|                        | Temp. Coefficient: -18mV/°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. |                                   |

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

| Volts/cell | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|------------|-------|-------|------|------|------|------|------|
| 1.80V      | 151   | 98.0  | 59.3 | 25.0 | 16.5 | 9.29 | 4.97 |
| 1.75V      | 161   | 102   | 60.8 | 25.1 | 16.9 | 9.39 | 5.00 |
| 1.70V      | 167   | 103   | 61.8 | 25.4 | 17.1 | 9.48 | 5.02 |
| 1.65V      | 171   | 105   | 62.2 | 25.8 | 17.3 | 9.57 | 5.05 |
| 1.60V      | 176   | 107   | 62.6 | 26.0 | 17.5 | 9.67 | 5.07 |

## 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 / ISO 14001



## Discharge Current vs. Discharge Voltage

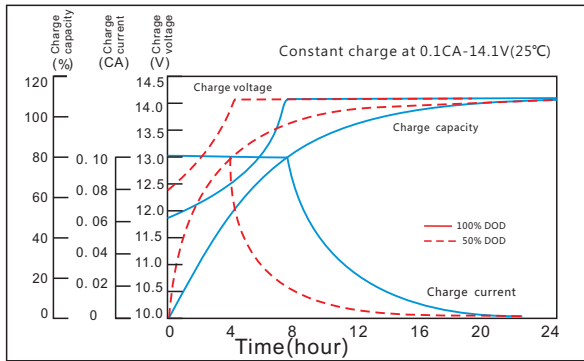
| Final discharge voltage V/CELL | 1.8            | 1.75                    | 1.7                      | 1.6          |
|--------------------------------|----------------|-------------------------|--------------------------|--------------|
| Discharge current (A)          | $I \leq 0.1CA$ | $0.25CA \geq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

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

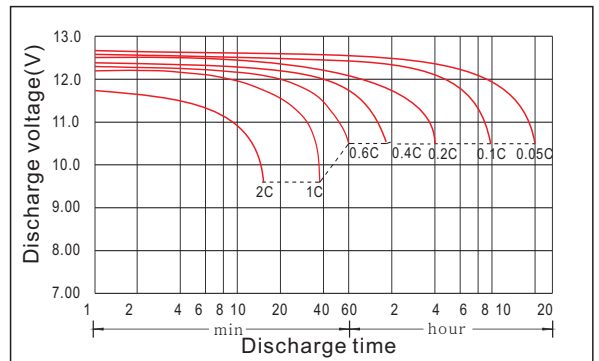
| Volts/cell | 15min | 30min | 1h  | 3h   | 5h   | 10h  | 20h  |
|------------|-------|-------|-----|------|------|------|------|
| 1.80V      | 304   | 201   | 123 | 51.8 | 34.6 | 19.2 | 10.6 |
| 1.75V      | 322   | 205   | 124 | 52.0 | 35.0 | 19.4 | 10.7 |
| 1.70V      | 324   | 206   | 125 | 52.3 | 35.2 | 19.6 | 10.7 |
| 1.65V      | 328   | 206   | 126 | 52.6 | 35.5 | 19.8 | 10.8 |
| 1.60V      | 333   | 208   | 127 | 53.3 | 35.7 | 20.0 | 10.8 |

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

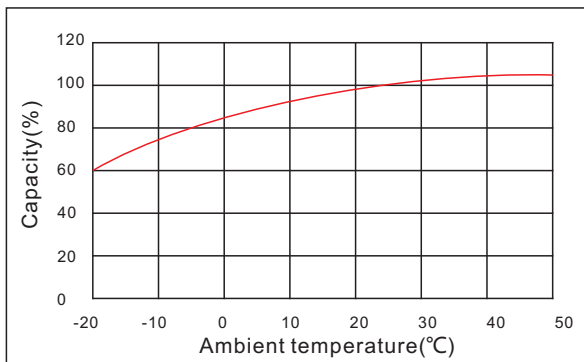
## Charging Characteristics (float use)



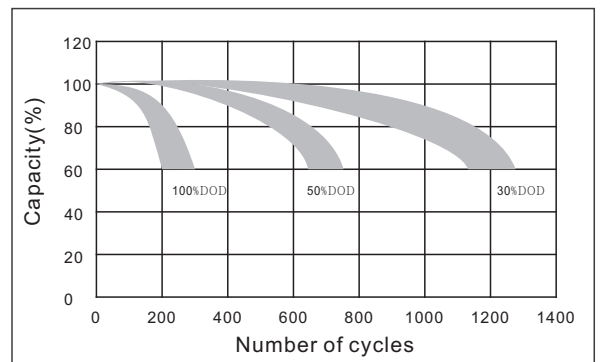
## Discharge Characteristics



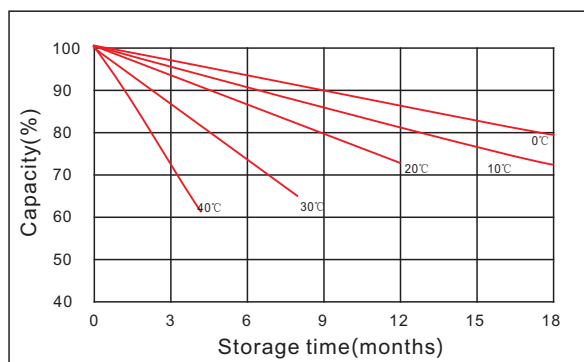
## Temperature Effects in Relation to Battery Capacity



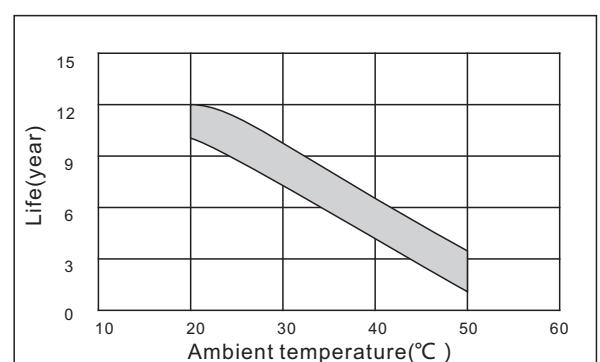
## Cycle Life in Relation to Depth of Discharge



## Curves of Self-Discharge



## Effect of Temperature on Long Term Float Life



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

