

# KBAS121400 12V 140Ah



The Kaise Solar Range is mainly used in renewable energy applications, due to its optimal cyclic use performance. It is specially designed for frequent cyclic charge and discharging, providing superior high integrity and reliability. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. Kaise Solar Range offer approx. 30% more cyclic life than the Standard Series.



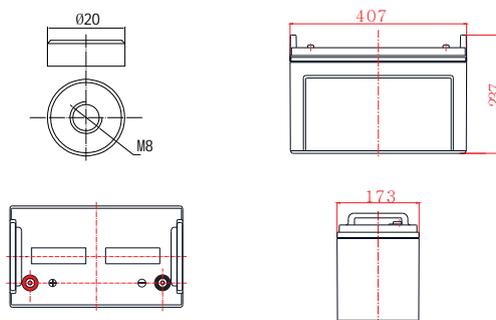
## Performance Characteristics

|                                  |   |                              |
|----------------------------------|---|------------------------------|
| Nominal Voltage                  | 12V   |                              |
| Dimensions                       | Length (mm / inch)  | 407 / 16.0                   |
|                                  | Width (mm / inch)   | 173 / 6.81                   |
|                                  | Height (mm / inch)  | 237 / 9.33                   |
|                                  | Total Height (mm / inch)  | 237 / 9.33                   |
| Approx. Weight                   | (Kg / lbs) 33.5 / 73.9  |                              |
| Design Life                      | 12 years (floating charge)  |                              |
| Terminal                         | M8  |                              |
| Container Material               | A.B.S. UL94-HB, UL94-V0 Optional.   |                              |
| Rated Capacity                   | 144.0 Ah / 1.44 A   | 100hr, 1.80V/c, 25°C / 77°F) |
|                                  | 121.0 Ah / 12.1 A   | (10hr, 1.75V/c, 25°C / 77°F) |
|                                  | 80.3 Ah / 80.3 A  | (1hr, 1.65V/c, 25°C / 77°F)  |
| Max. Discharge Current           | 1440A (5s)  |                              |
| Internal Resistance              | Approx 4.5mΩ  |                              |
| Operating Temp. Range            | Discharge : -20 ~ 50°C (-40~ 122°F)   |                              |
|                                  | Charge : -20 ~ 50°C (-40~ 122°F)  |                              |
|                                  | Storage : -20 ~ 50°C (-40~ 122°F)   |                              |
| Charge Current                   | Max. 30.0A  |                              |
| Cycle Use                        | Voltage: 14.4V ~ 15.0V at 25°C (77°F)<br>Temp. Compensation: -30mV/°C   |                              |
| Float Voltage Use                | Voltage: 13.5V ~ 13.8V at 25°C (77°F)<br>Temp. Compensation: -18mV/°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 Solar 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 | 1h   | 3h   | 4h   | 8h   | 10h  | 20h  | 100h |
|------------|------|------|------|------|------|------|------|
| 1.80V      | 76.6 | 32.3 | 23.9 | 14.3 | 12.0 | 6.42 | 1.44 |
| 1.75V      | 78.6 | 32.5 | 24.1 | 14.5 | 12.1 | 6.46 | 1.45 |
| 1.70V      | 79.7 | 32.8 | 24.3 | 14.6 | 12.2 | 6.48 | 1.46 |
| 1.65V      | 80.3 | 33.3 | 24.5 | 14.7 | 12.4 | 6.52 | 1.49 |
| 1.60V      | 80.8 | 33.6 | 24.7 | 14.8 | 12.5 | 6.55 | 1.50 |

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



## Applications

- Renewable Energy
- Pump Systems
- Traffic lights
- Street lightening
- Marine equipment
- Caravans & Boats
- Weekend cottage camping
- Telecommunications systems

## Certifications

ISO 9001 / ISO 14001



## Discharge Current vs. Discharge Voltage

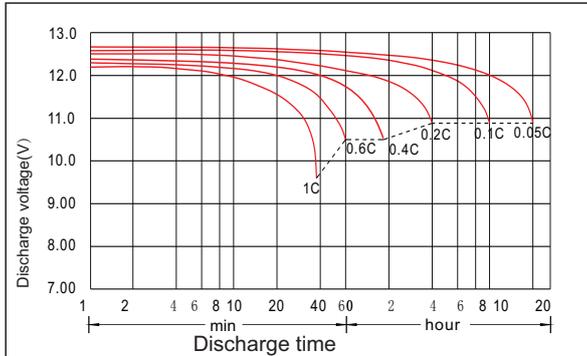
| Final discharge voltage V/CELL | 1.8       | 1.75               | 1.7                 | 1.6        |
|--------------------------------|-----------|--------------------|---------------------|------------|
| Discharge current (A)          | I ≤ 0.1CA | 0.25CA ≥ I > 0.1CA | 0.55CA ≥ I > 0.25CA | I > 0.55CA |

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

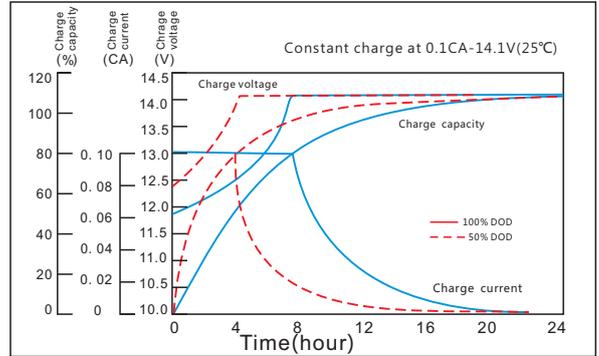
| Volts/cell | 1h  | 3h   | 4h   | 8h   | 10h  | 20h  | 100h  |
|------------|-----|------|------|------|------|------|-------|
| 1.80V      | 148 | 62.2 | 45.5 | 28.0 | 23.0 | 12.7 | 4.888 |
| 1.75V      | 149 | 62.4 | 46.0 | 28.2 | 23.3 | 12.8 | 4.910 |
| 1.70V      | 150 | 62.8 | 46.2 | 28.5 | 23.5 | 12.8 | 4.932 |
| 1.65V      | 152 | 63.2 | 46.6 | 28.6 | 23.8 | 12.9 | 4.976 |
| 1.60V      | 153 | 64.0 | 46.8 | 28.8 | 24.0 | 13.0 | 4.998 |

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

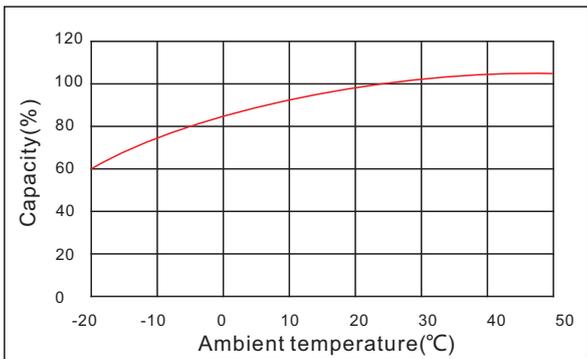
## Discharge Characteristics Curve



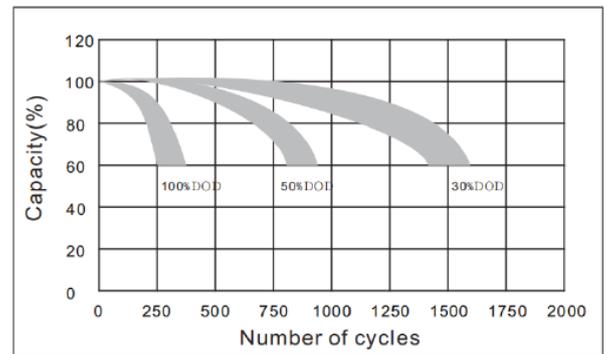
## Charge Characteristic Curve



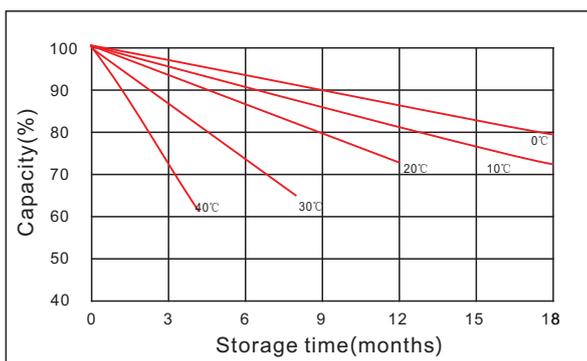
## The Effect of Temperature on Capacity



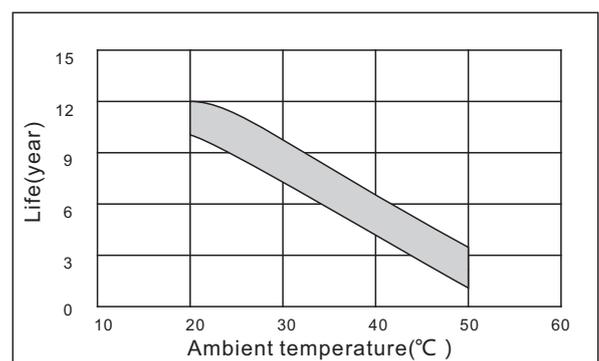
## The Effect of Discharge Depth on Cycle Life



## Curves of Self-Discharge



## The Effect of Temperature on Float Life



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

2025/1/K

