

## KBAS121200 12V 120Ah

The Kaise Solar range is mainly used in the renewable energies industry, given their optimal performance in cyclic use. With lower acid density, excess of electrolyte and larger distance between plates the batteries maintain a low temperature and also slows down the plate grid corrosion speed. These batteries have a unique plate grid configuration which, alongside the high quality AGM separator and the battery management system, ensures the batteries have a longer service life. The valves were specially designed to control water loss and prevent air and other elements from getting in.

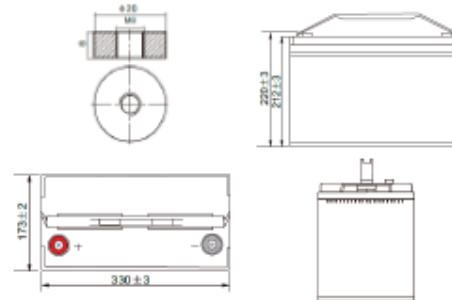
### Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	330 / 12.99
	Width (mm / inch)	173 / 6.81
	Height (mm / inch)	212 / 8.35
	Total Height (mm / inch)	220 / 8.66
Approx. Weight	(Kg / lbs)	
Design Life	8 - 12 years	
Terminal	M8	
Container Material	ABS	
Rated Capacity	120 DAh / 1.20 A	(100hr, 1.80V/cell, 25°C / 77°F)
	104 DAh / 5.20 A	(20hr, 1.80V/cell, 25°C / 77°F)
	108 DAh / 18.8 A	(10hr, 1.80V/cell, 25°C / 77°F)
	88.0 Ah / 17.6 A	(5hr, 1.75V/cell, 25°C / 77°F)
	63.8 Ah / 63.8 A	(1hr, 1.60V/cell, 25°C / 77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
Operating Temp. Range	Discharge : -15 - 54°C (5 - 122°F)	
	Charge : 0 - 40°C (32 - 104°F)	
	Storage : -15 - 40°C (5 - 104°F)	
	Nominal Operating Temp. Range : 25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial Charging Current less than 20A	
	Voltage: 14.4V - 16.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Steadily Use	Initial Charging Current less than 20A	
	13.8V - 13.8V at 25°C (77°F)	
	Temp. Coefficient: -20mV/°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 refreshing charge is required. For higher temperatures the time interval will be shorter.	

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

Voltage/cell	15min	30min	45min	1h	5h	10h	20h	100h
1.80V	143.7	92.1	68.7	55.1	17.2	10.0	5.20	1.20
1.70V	154.0	96.5	71.3	57.1	17.6	10.1	5.29	1.24
1.70V	165.1	101.8	74.6	59.5	17.9	10.2	5.34	1.30
1.60V	176.5	106.7	77.4	61.9	18.3	10.3	5.40	1.34
1.60V	188.5	112.3	80.5	63.8	18.6	10.5	5.45	1.39

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



### Applications

- Renewable Energy
- Alarm systems
- Electric Test Equipment
- Emergency lighting systems
- Marine equipment
- Telecommunications systems

### Certifications

ISO 9001:2008 ISO 14001:2008



### Discharge Current vs. Discharge Voltage

Final discharge voltage/VCELL	1.8	1.75	1.7	1.6
Discharge current (A)	≤ 0.10A	0.25CA ≥ 1 > 0.10A	0.55CA ≥ 1 > 0.25CA	> 0.55CA

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

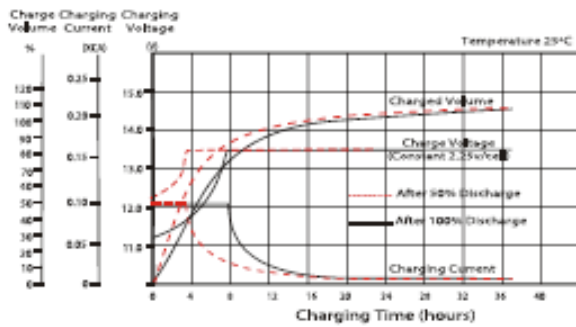
Voltage/cell	15min	30min	45min	1h	5h	10h	20h
1.80V	271.0	176.8	132.7	107.2	33.6	19.8	10.3
1.70V	288.7	184.3	137.3	110.8	34.3	19.9	10.4
1.70V	307.7	193.6	143.0	115.0	34.8	20.1	10.5
1.60V	330.2	201.9	147.7	119.1	35.3	20.3	10.6
1.60V	345.1	211.1	152.9	122.4	35.9	20.5	10.7

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

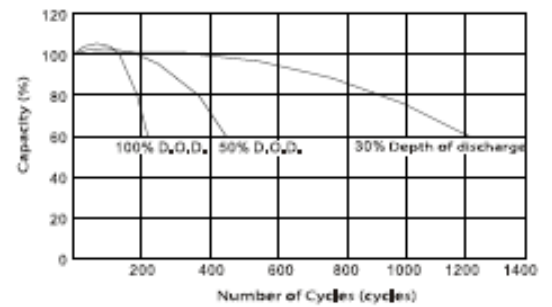
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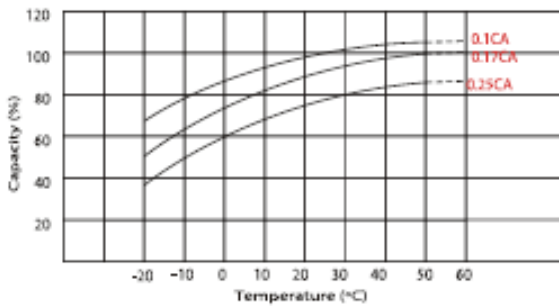
## Charging Characteristic (float use)



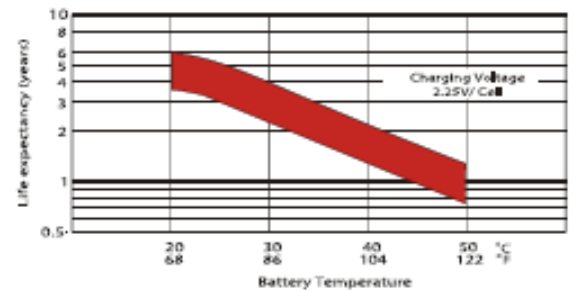
## Cycle Life in Relation to Depth of Discharge



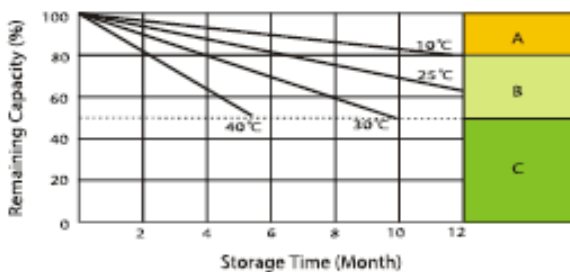
## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics



- A** With switch regulator (two-step controller) charge on curve max. charge voltage for max. 2 hr/ day then switch over to continuous charge.
- B** Standard charge without switching.
- C** Boost charge (Equalizing charge with external generator) charge on curve continuous charge for max. 5 hr/month, then switch over to curve Standard charge.

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

