

# KBG121000 12V 100Ah (C<sub>10</sub>)



Gel battery shows some distinctive advantages over flooded battery or AGM battery, such as super thermal stability, high deep discharge capability, good recovery from deep discharge, even if the battery is left discharged for three days, it will recover to 100% of capacity. With the above-mentioned advantages, the gel battery has long service life, specially suitable for motive power applications, such as golf trailer, scrubber, folklift, etc. The deep discharge cycles increased 50% as compared with the AGM battery.



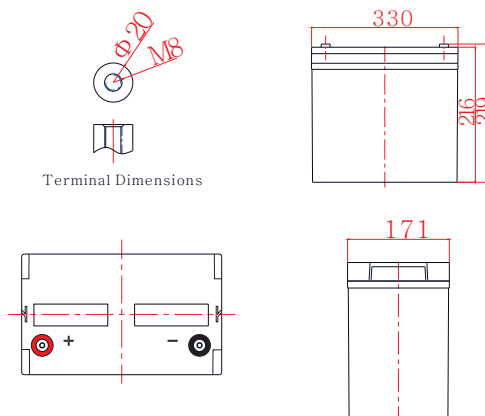
## Performance Characteristics

Nominal Voltage	12V		
Design Life	12 years		
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)	29.5 / 65.1	
	Terminal	M8	
Container Material	ABS		
Rated Capacity	96.5Ah / 9.65A	(10hr, 1.70V / cell, 25°C / 77°F)	
	89.5Ah / 17.9A	(5hr, 1.70V / cell, 25°C / 77°F)	
	60.6Ah / 60.6A	(1hr, 1.70V / cell, 25°C / 77°F)	
Max. Discharge Current	1200A (5s)		
Internal Resistance	Approx 5.2mΩ		
Operating Temp. Range	Discharge :	-40 ~ 60°C (-40 ~ 140°F)	
	Charge :	-20 ~ 50°C (-4 ~ 122°F)	
	Storage :	-20 ~ 50°C (-4 ~ 122°F)	
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)		
Cycle Use	Maximum charging current	20A	
	Voltage:	14.1V ~ 14.4V at 25°C (77°F)	
	Temp. Coefficient:	-20mV/°C	
Standby Use	Maximum charging current	20A	
	Voltage:	13.5V ~ 13.8V at 25°C (77°F)	
	Temp. Coefficient:	-30mV/°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 Gel 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.		

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

Volts/cell	15min	30min	1h	2h	3h	5h	10h	20h
1.80V	157	102	62.5	36.1	26.3	17.4	10	5.32
1.75V	169	107	64.2	36.8	26.5	17.9	10	5.35
1.70V	174	108	65.1	37.4	26.8	18.1	10.1	5.37
1.65V	178	110	65.6	37.6	27.2	18.2	10.2	5.40
1.60V	184	112	66	37.8	27.5	18.4	10.3	5.43

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



## Applications

- Wind and solar energy systems
- Cable TV systems
- Telecommunications
- Electric wheel chairs
- Military equipment
- Emergency lighting
- Power plants
- Medical equipment
- Golf carts

## Certifications

ISO 9001:2008 ISO 14001:2008



## Discharge End Voltage vs. Discharge Current

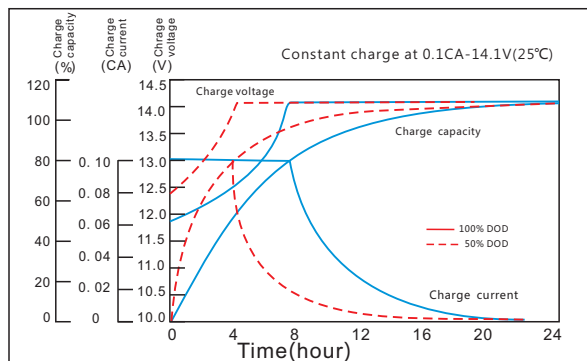
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

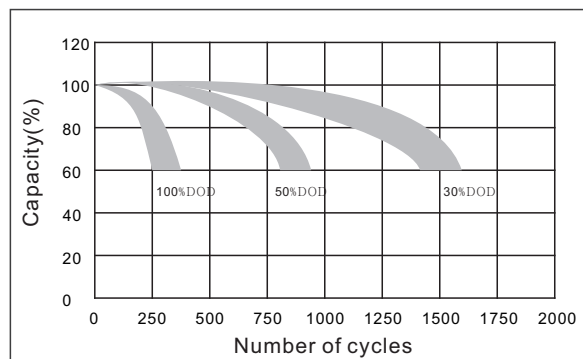
Volts/cell	15min	30min	1h	2h	3h	5h
1.80V	295	194	121	70.5	50.8	33.9
1.75V	312	199	122	70.7	51	34.3
1.70V	314	200	123	71.1	51.3	34.5
1.65V	318	200	124	71.4	51.6	34.8
1.60V	323	202	125	71.5	52.2	35

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

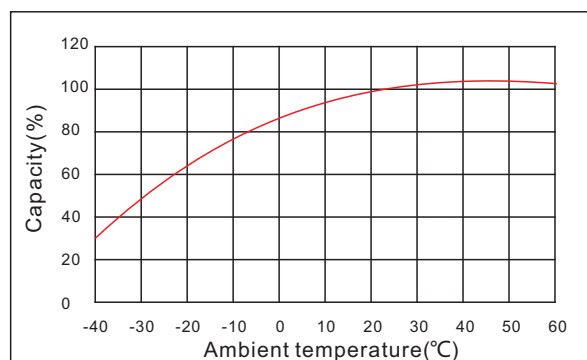
## Charging Characteristics (cycle use)



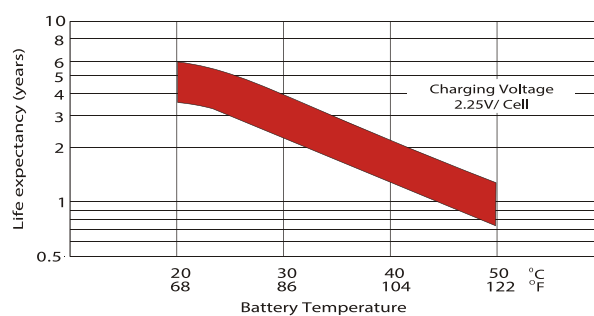
## Cycle Life in Relation to Depth of Discharge



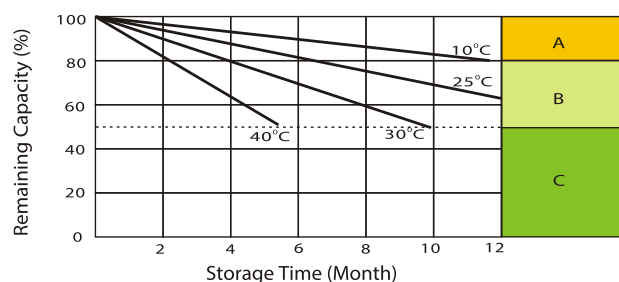
## Temperature Effects in Relation to Battery Capacity



## 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 a 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.

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

