

## KBG121000 12V 100Ah (C10)

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, forklift, etc. The deep discharge cycles increased 50% as compared with the AGM battery.



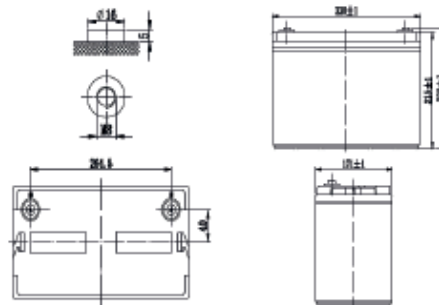
### Performance Characteristics

Nominal Voltage	12V		
Design Life	12 years		
Dimensions	Length (mm / inch)	330 / 12.99	
	Width (mm / inch)	171 / 6.73	
	Height (mm / inch)	215 / 8.46	
	Total Height (mm / inch)	222 / 8.74	
Approx. Weight	(Kg / lbs)	32 / 70.5	
	Terminal	M8	
Container Material	ABS		
Rated Capacity	100Ah / 5.5A	(20hr, 11.8V / cell, 25°C / 77°F)	
	100Ah / 10.0A	(10hr, 11.8V / cell, 25°C / 77°F)	
	87.5Ah / 17.5A	(5hr, 11.8V / cell, 25°C / 77°F)	
	66.2Ah / 66.2A	(1hr, 9.8V / cell, 25°C / 77°F)	
Max. Discharge Current	90A (5s)		
Internal Resistance	Approx 5.2mΩ		
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	Maximum charging current 30A		
	Voltage: 2.38V - 2.42V at 25°C (77°F)		
	Temp. Coefficient: -20mV/°C		
Standby Use	No limit on Initial Charging Current 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)

Voltage/cell	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	175	143	91.0	57.4	25.3	15.9	10.0	4.80
1.75V	187	153	93.0	60.5	26.9	16.4	10.3	5.00
1.70V	200	164	96.0	61.5	27.2	16.9	10.5	5.04
1.65V	221	178	104	62.5	27.7	17.4	10.6	5.10
1.60V	229	185	108	64.2	27.9	17.7	10.8	5.15

### 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/WCELL	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)

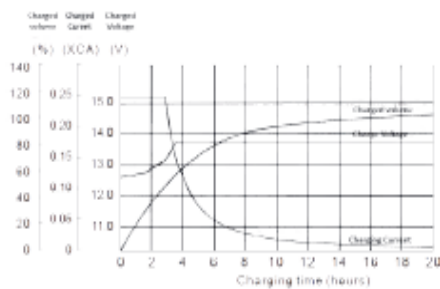
Voltage/cell	10min	15min	30min	45min	1h	2h	3h	5h
1.80V	329	321	171	131	104	62.5	48.5	34.0
1.75V	353	315	177	134	111	64.5	49.1	34.4
1.70V	380	299	183	137	114	66.8	50.9	35.0
1.65V	379	294	188	146	118	67.8	49.1	34.4
1.60V	392	321	199	150	124	70.6	48.5	34.0

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

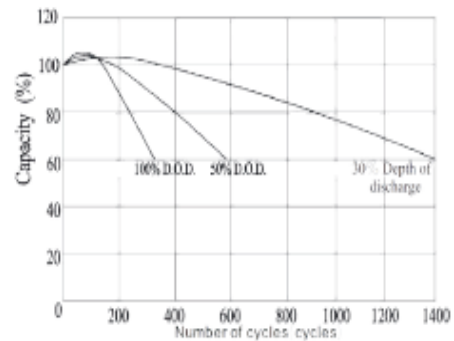
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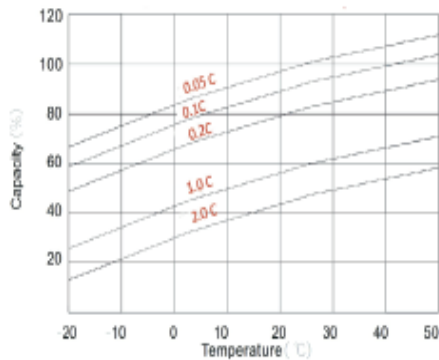
## Charging Characteristics (cycle use)



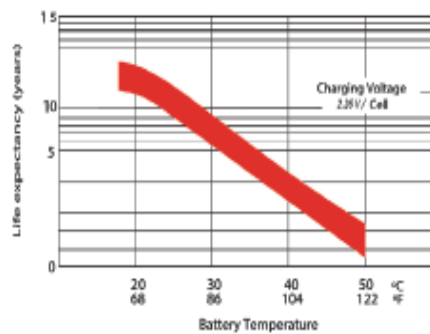
## Cycle Life in Relation to Depth of Discharge



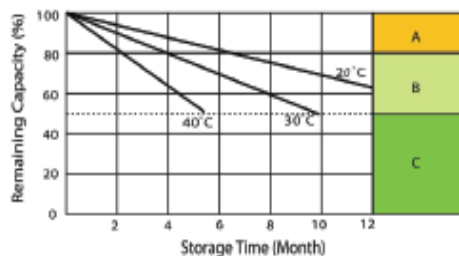
## Temperature Effects in Relation to Battery Capacity



## 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 7.2V / cell.  
2. Charged for above 20 hours limited current 0.25CA and constant voltage 7.2V / 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.

