

# KBG121200 12V 120Ah (C<sub>20</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, forklift, etc. The deep discharge cycles increased 50% as compared with the AGM battery.



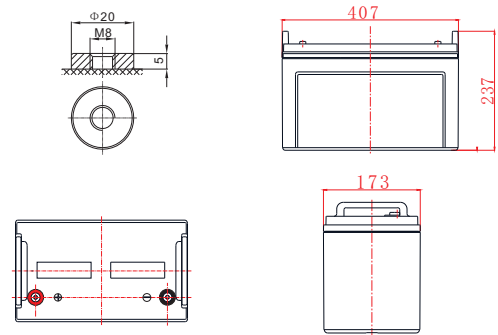
## Performance Characteristics

Nominal Voltage	12V	
Design Life	12 years	
Dimensions	Length (mm / inch)	407±2 / 16.0
	Width (mm / inch)	177±2 / 6.97
	Height (mm / inch)	225±2 / 8.86
	Total Height (mm / inch)	225±2 / 8.86
Approx. Weight	(Kg / lbs) 33.5 / 73.9	
Terminal	M8	
Container Material	A.B.S.	
Rated Capacity	120Ah / 6.01A	(20hr, 1.75V / cell, 25°C / 77°F)
	99.0Ah / 19.8A	(5hr, 1.70V / cell, 25°C / 77°F)
	60.7Ah / 60.7A	(1hr, 1.75V / cell, 25°C / 77°F)
Max. Discharge Current	1440A (5s)	
Internal Resistance	Approx 4.5mΩ	
Operating Temp. Range	Discharge : -40 ~ 60°C (-40 ~ 140°F)	
	Charge : -20 ~ 50°C (-4 ~ 122°F)	
	Storage : -40 ~ 50°C (-40 ~ 122°F)	
Cycle Use	Maximum charging current 30A	
	Voltage: 14.4V ~ 15.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	Maximum charging current 30A	
	Voltage: 13.5V ~ 13.8V at 25°C (77°F)	
	Temp. Coefficient: -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 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	5min	15min	30min	1h	3h	5h	10h	20h
1.80V	201	159	98.6	57.6	27.5	18.7	10.7	5.88
1.75V	220	174	106	60.7	28.1	19.2	11.3	6.01
1.70V	235	183	110	63.0	29.5	19.8	11.6	6.17
1.65V	246	191	112	64.6	30.2	20.2	11.8	6.29
1.60V	254	197	113	65.9	30.6	20.4	11.9	6.44

## 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 / ISO 14001



## Discharge End Voltage vs. Discharge Current

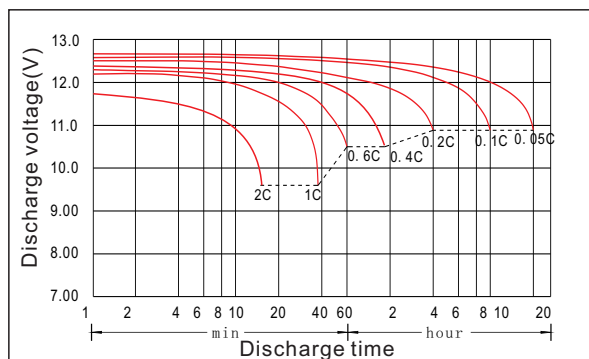
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

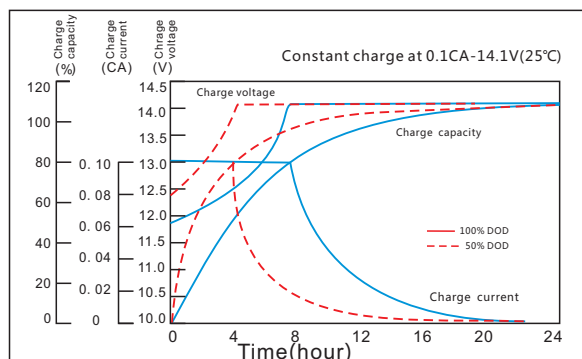
Volts/cell	5min	15min	30min	1h	3h	5h	10h	20h
1.80V	581	365	241	148	62.2	41.5	23.0	12.7
1.75V	633	386	246	149	62.4	42.0	23.3	12.8
1.70V	678	388	248	150	62.8	42.2	23.5	12.8
1.65V	682	393	248	152	63.2	42.6	23.8	12.9
1.60V	709	400	250	153	64.0	42.8	24.0	13.0

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

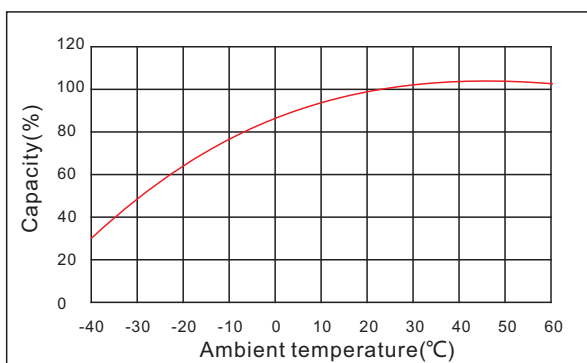
## Discharge Characteristics Curve



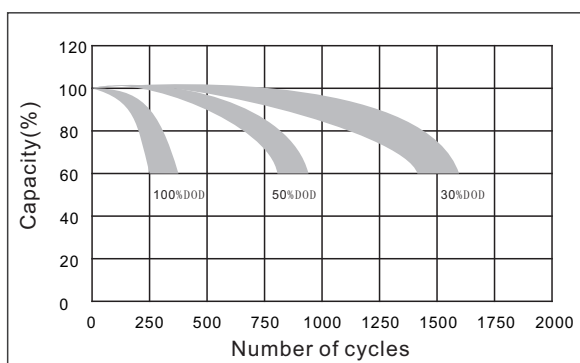
## Charge Characteristic Curve



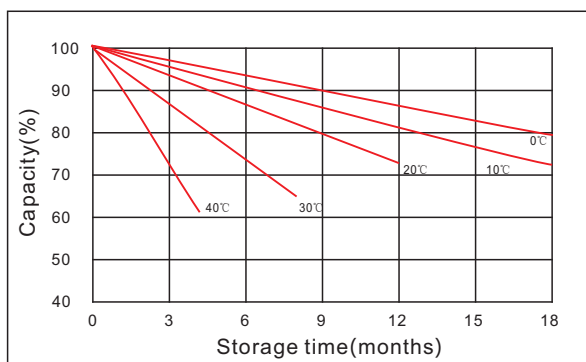
## The effect of temperature on capacity



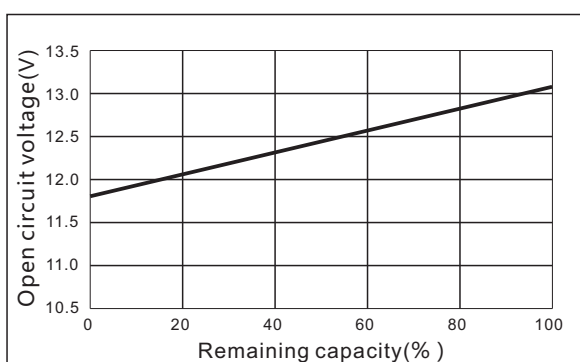
## The effect of discharge depth on cycle life



## Curves of self-discharge



## Curves of open circuit voltage vs. capacity



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

