

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.



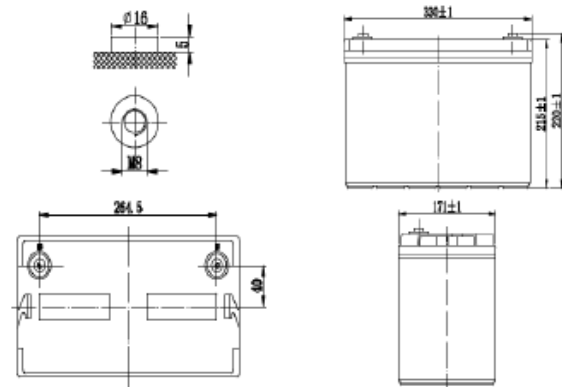
Performance Characteristics

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)	220 / 8.66	
Approx. Weight	(Kg / lbs)	32 / 70.5	
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	900A (5s)		
Internal Resistance	Approx 5mΩ		
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	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	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	168	139	88.7	56.5	25.1	17.1	9.50	5.00
1.75V	180	148	90.7	59.6	26.6	17.4	9.60	5.05
1.70V	192	159	93.6	60.6	26.9	17.9	9.65	5.10
1.65V	212	173	101	61.6	27.4	18.2	9.70	5.15
1.60V	220	180	105	65.2	27.6	18.9	9.75	5.20

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

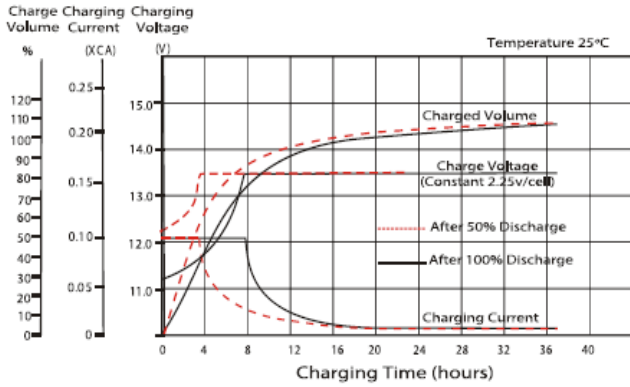
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

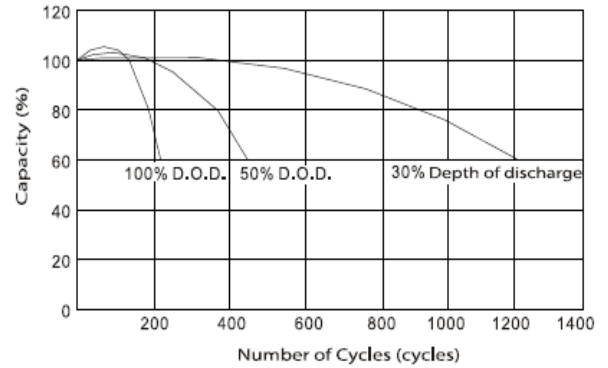
Volts/cell	10min	15min	30min	1h	3h	5h
1.80V	316	271	167	102	48.0	33.8
1.75V	339	285	173	109	48.6	34.2
1.70V	346	290	178	112	50.4	34.8
1.65V	364	306	183	116	50.7	35.2
1.60V	376	311	194	122	52.3	35.6

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

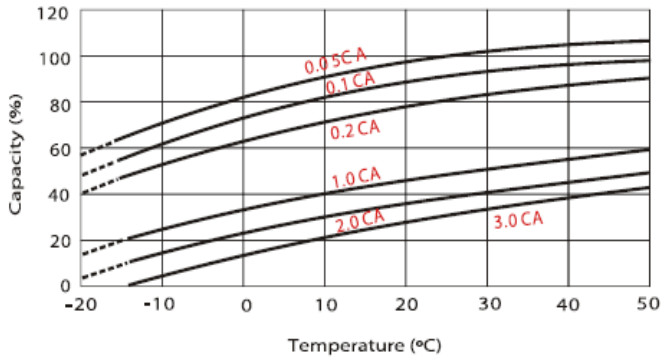
Charging Characteristics (cycle use)



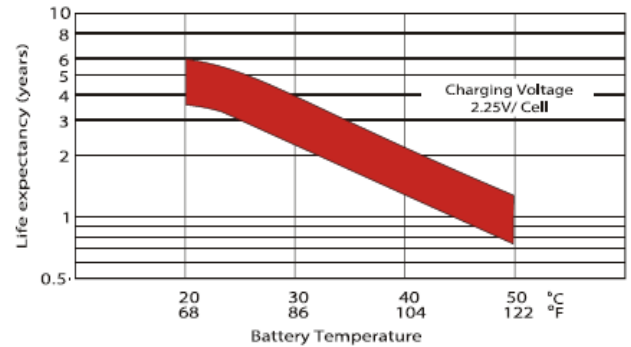
Cycle Life in Relation to Depth of Discharge



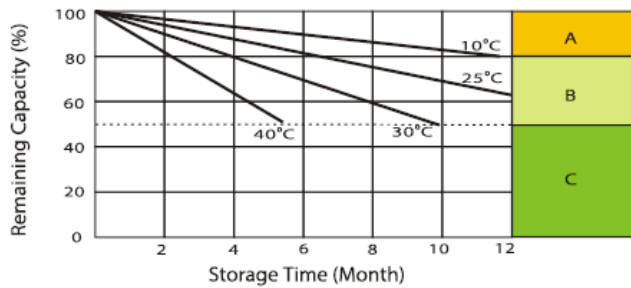
Temperature Effects in Relation to Battery Capacity



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 to 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.