KBG12400 12V 40Ah (C_{10})

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.

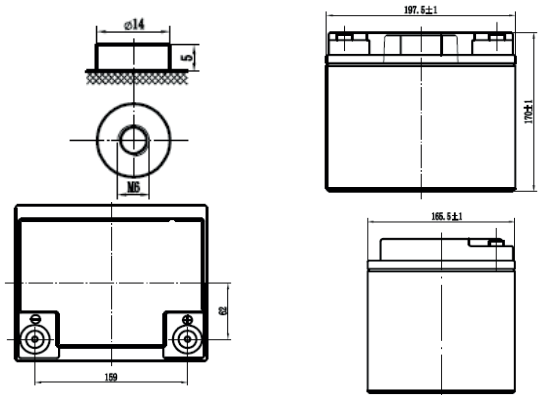
Performance Characteristics

Nominal Voltage	12V	
Design Life	12 years	
Dimensions	Length (mm / inch)	197 / 7.75
	Width (mm / inch)	165 / 6.49
	Height (mm / inch)	170 / 6.69
	Total Height (mm / inch)	170 / 6.69
Approx. Weight	(Kg / lbs)	14.7 / 29.8
Terminal	M6	
Container Material	ABS	
Rated Capacity	40Ah / 2.0A	(20hr, 10.5V / cell, 25ºC / 77ºF)
	36.6Ah / 3.66A	(10hr, 10.5V / cell, 25ºC / 77ºF)
	33.5Ah / 6.7A	(5hr, 10.5V / cell, 25ºC / 77ºF)
	25.3Ah / 25.3A	(1hr, 9.6V / cell, 25ºC / 77ºF)
Max. Discharge Current	400A (5s)	
Internal Resistance	Approx 9.5mΩ	
Operating Temp. Range	Discharge : -20 ~ 60ºC (-4 ~ 140ºF)	
	Charge : -10 ~ 60ºC (14 ~ 140ºF)	
	Storage : -20 ~ 60ºC (-4 ~ 140ºF)	
Nominal Operating Temp. Range	25 ± 3ºC (77 ± 5ºF)	
Cycle Use	Cycle Use Maximum charging current 12A	
	Voltage: 2.40V ~ 2.45V at 25ºC (77º F)	
	Temp. Coefficient:-30mV/ºC	
Standby Use	No limit on Initial Charging Current Voltage	
	2.20V ~2.30V at 25ºC (77º F)	
	Temp. Coefficient: -20mV/ºC	
Capacity affected by Temperature	40ºC (104ºF)	103%
	25ºC (77ºF)	100%
	0ºC (32ºF)	86%
Self Discharge	Fully charged Kaise Gel Series batteries may be stored for up to 6 months at 25ºC (77ºF) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Discharge Constant Current (Amperes) at 77ºF (25ºC)

Volts/cell	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	72.0	58.9	33.7	21.3	8.90	6.50	3.52	1.94
1.75V	76.0	62.4	35.6	22.3	9.40	6.70	3.66	2.00
1.70V	81.0	65.7	37.4	23.5	9.70	6.90	3.77	2.02
1.65V	85.0	69.1	39.1	24.4	10.1	7.20	3.90	2.08
1.60V	89.0	72.4	40.7	25.3	10.4	7.30	4.01	2.13

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

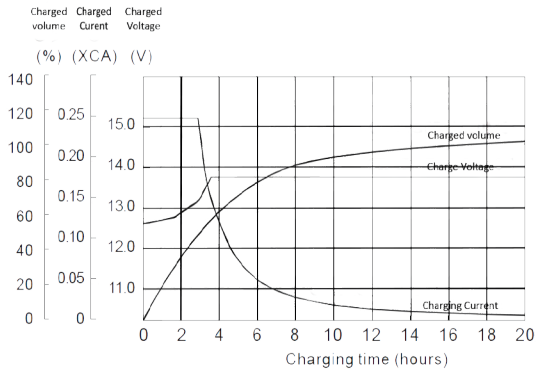
Discharge Constant Power (Watts per cell) at 77ºF (25ºC)

Volts/cell	10min	15min	30min	45min	1h	2h	3h	5h
1.80V	133	111	64.0	51.7	43.6	24.8	18.5	12.9
1.75V	142	117	67.0	54.3	45.7	26.0	19.4	13.2
1.70V	149	123	70.0	56.6	47.7	26.9	20.0	13.6
1.65V	156	128	73.0	58.6	49.2	27.8	20.6	14.0
1.60V	163	133	76.0	60.5	50.7	28.6	21.2	14.1

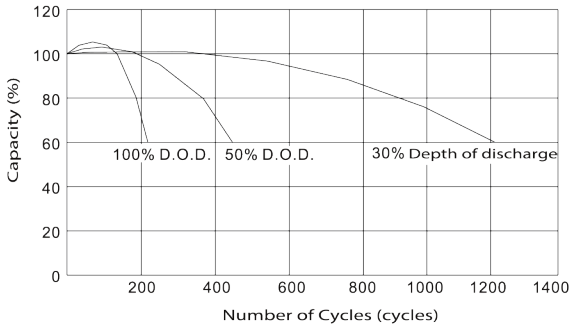
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

KBG12400 12V 40Ah (C_{10})

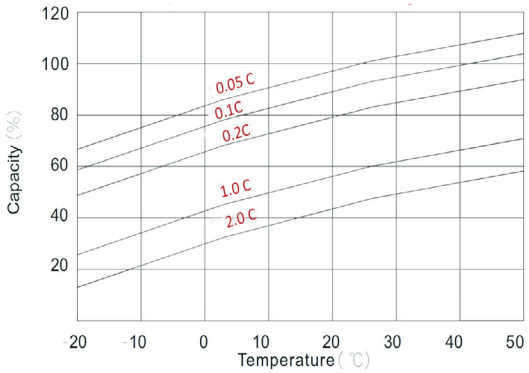
Charging Characteristics (cycle use)



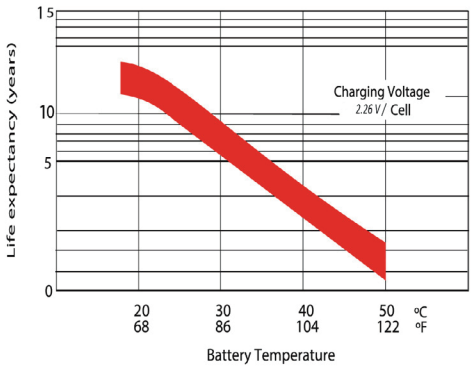
Cycle Life in Relation to Depth of Discharge



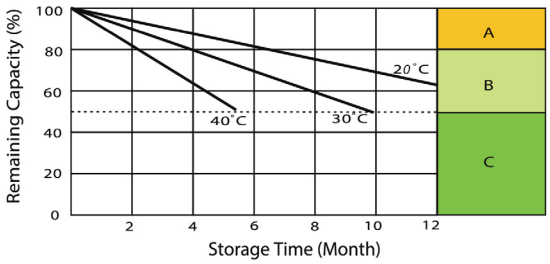
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



A No supplementary charge required
(carrry 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 fo above 20 hours limited current 0.25CA and constant voltage 2.45V / cell.
3. Charged for 8-10 hours ar 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.

2018/V1/N

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

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