KBG12900 12V 90Ah (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.

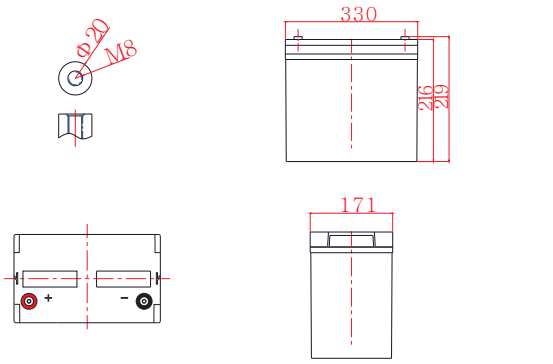
Performance Characteristics

Nominal Voltage	12V	
Design Life	12 years	
Dimensions	Length (mm / inch)	330±2 / 13.0
	Width (mm / inch)	171±2 / 6.73
	Height (mm / inch)	216±2 / 8.50
	Total Height (mm / inch)	219±2 / 8.62
Approx. Weight	(Kg / lbs)	27.0 / 59.5
Terminal	M8	
Container Material	ABS	
Rated Capacity	90.0Ah / 9.00A	(10hr, 1.80V / cell, 25ºC / 77ºF)
	82.0Ah / 16.4A	(5hr, 1.75V / cell, 25ºC / 77ºF)
	60.6Ah / 60.6A	(1hr, 1.60V / cell, 25ºC / 77ºF)
Max. Discharge Current	1080A (5s)	
Internal Resistance	Approx 5.5mΩ	
Operating Temp. Range	Discharge : -40 ~ 60ºC (-40 ~ 140ºF)	
	Charge : -20 ~ 50ºC (-4 ~ 122ºF)	
	Storage : -20 ~ 50ºC (-4 ~ 122ºF)	
Cycle Use	Initial charging current less than 22.5A	
	Voltage 14.4V ~ 15.0V at 25º C (77º F)	
	Temp. Coefficient: -30mV/ºC	
Standby Use	Initial charging current less than 22.5A	
	Voltage 13.5V ~ 13.8V at 25º C (77º F)	
	Temp. Coefficient: -18mV/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	15min	30min	1h	2h	3h	5h	10h	20h
1.80V	146	94.9	57.4	33.2	24.2	16.0	9.00	4.82
1.75V	156	99.2	58.9	33.8	24.3	16.4	9.09	4.84
1.70V	162	100	59.8	34.3	24.6	16.6	9.18	4.86
1.65V	165	102	60.2	34.6	25.0	16.8	9.27	4.89
1.60V	170	104	60.6	34.8	25.2	16.9	9.36	4.91

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

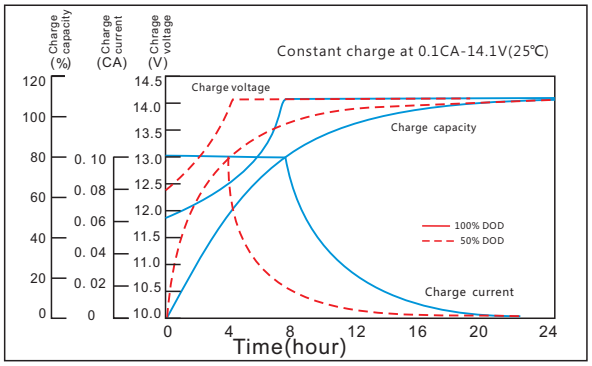
Discharge Constant Power (Watts per cell) at 77ºF (25ºC)

Volts/cell	15min	30min	1h	3h	5h	10h	20h
1.80V	274	180	111	46.7	31.1	17.3	9.54
1.75V	290	185	112	46.8	31.5	17.5	9.59
1.70V	291	186	113	47.1	31.7	17.6	9.63
1.65V	295	186	114	47.4	31.9	17.8	9.68
1.60V	300	188	115	48.0	32.1	18.0	9.72

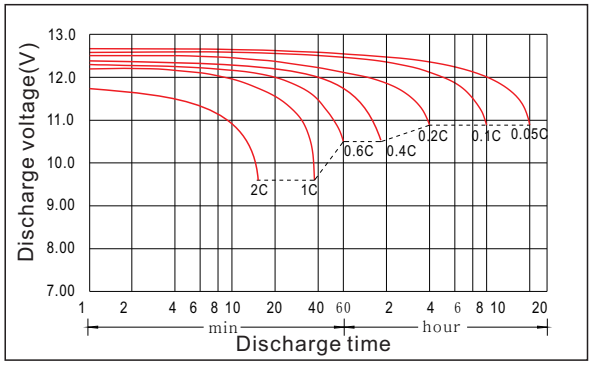
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

KBG12900 12V 90Ah (C_{10})

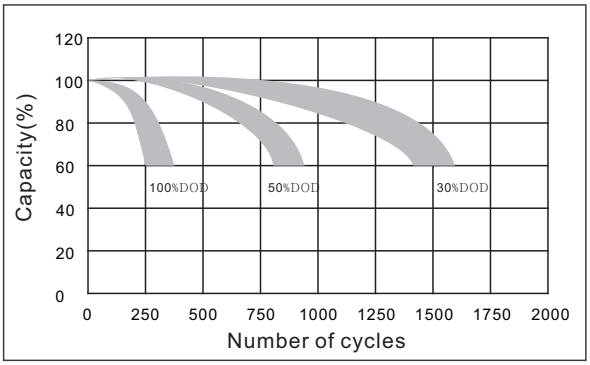
Charging Characteristics



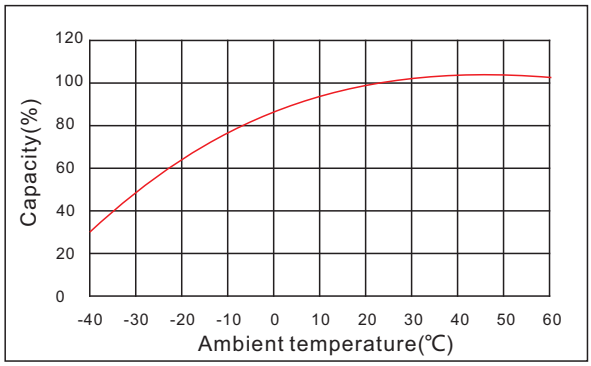
Discharge Characteristics



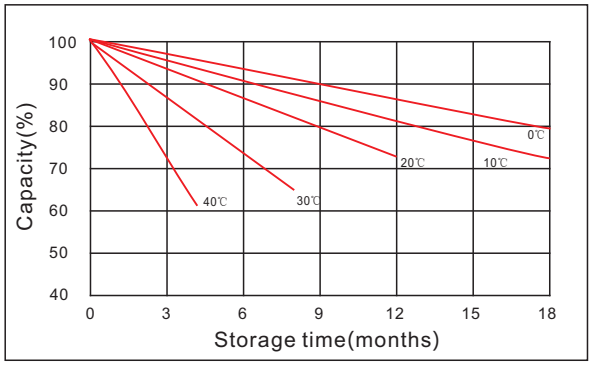
The effect of discharge depth on cycle life



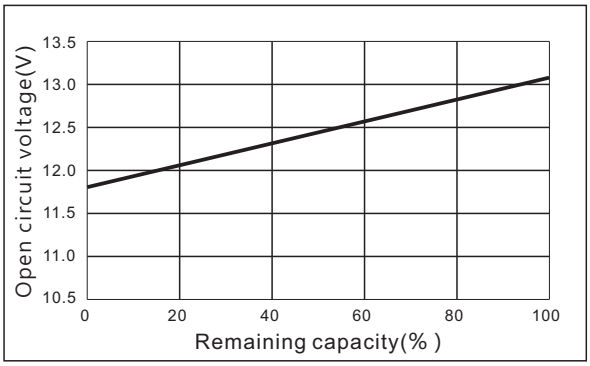
The effect of temperature on capacity



Curves of self-discharge



Curves of open circuit voltage vs. capacity



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

2025/V1/K

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