

# KB1290 12V 9.0Ah



The KB Standard series consists in VRLA batteries - AGM technology (Absorbent Glass Mat), with a design life of 3-5 years and it is designed for general applications such as UPS, telecommunications and electrical applications.



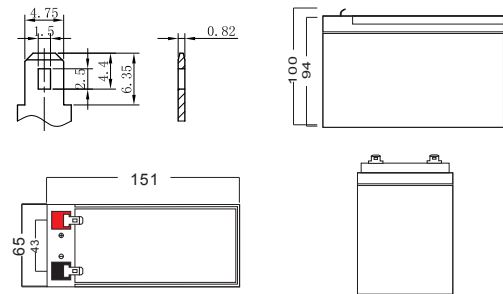
## Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	151±2 / 5.95
	Width (mm / inch)	65±1 / 2.56
	Height (mm / inch)	94±1 / 3.70
	Total Height (mm / inch)	100±1 / 3.94
Approx Weight	(Kg / lbs) 2.50 / 5.52	
Design Life	5 years	
Terminal	F1	
Container Material	ABS	
Rated Capacity	9.00Ah / 0.450A	(20hr, 1.75V / cell, 25°C / 77°F)
	6.99Ah / 2.33A	(3hr, 1.75V / cell, 25°C / 77°F)
	5.94Ah / 5.94A	(1hr, 1.60V / cell, 25°C / 77°F)
Max. Discharge Current	135A (5s)	
Internal Resistance	Approx 20.0mΩ	
Operating Temp. Range	Discharge : -20 ~ 50°C (-4 ~ 122°F)	
	Charge : -20 ~ 50°C (-4 ~ 122°F)	
	Storage : -20 ~ 50°C (-4 ~ 122°F)	
Charge Current	Max. 2.25A	
Cycle Use	Voltage: 14.4V ~ 15.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	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 Standard 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 25°C (77°F)

Volts/cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	24.8	18.8	12.9	9.90	5.03	2.21	1.50	0.828	0.432
1.75V	26.9	20.0	13.9	10.2	5.21	2.33	1.57	0.846	0.450
1.70V	29.0	21.0	14.9	10.5	5.40	2.37	1.64	0.864	0.459
1.67V	35.4	22.3	15.9	10.8	5.58	2.41	1.66	0.882	0.468
1.60V	35.6	23.3	17.4	11.4	5.94	2.48	1.69	0.891	0.477

## Dimensions and Terminal (Unit: mm (inches))



## Applications

- |                            |                                       |
|----------------------------|---------------------------------------|
| Alarm systems              | Marine equipment                      |
| Cable television           | Medical equipment                     |
| Communications Equipment   | Micro processor based office machines |
| Control Equipment          | Portable cine & Video lights          |
| Computers                  | Solar powered systems                 |
| Electronic Cash Registers  | Telecommunications systems            |
| Electric Test Equipment    | Television & Video recorders          |
| Emergency lighting systems | Toys                                  |
| Fire & Security            | Uninterruptible power supply systems  |
| Geophysical equipment      | Vending machines                      |

## Certifications

ISO 9001 / ISO 14001



## Discharge Current vs. Discharge Voltage

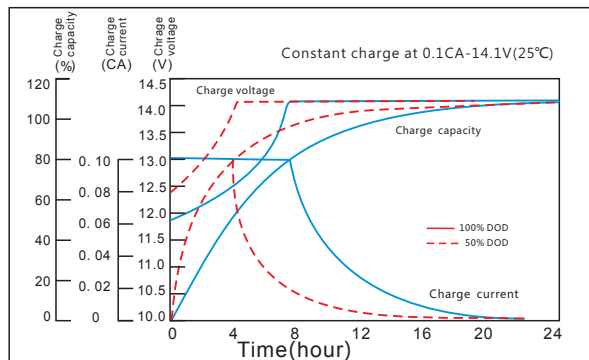
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current [A]	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

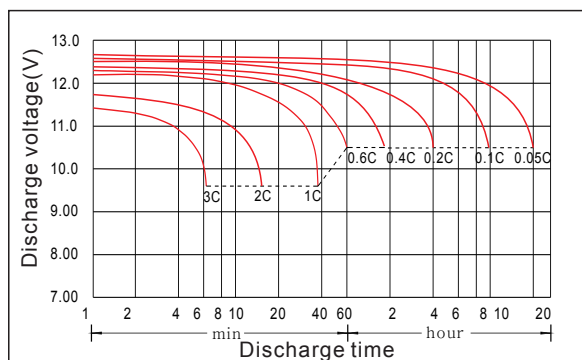
Volts/cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	45.9	36.2	26.3	18.7	9.51	4.31	2.91	1.61	0.887
1.75V	51.2	37.4	27.5	18.8	9.65	4.43	2.99	1.64	0.893
1.70V	56.4	38.6	28.5	19.0	9.93	4.49	3.05	1.68	0.912
1.67V	61.7	39.8	29.9	19.1	10.2	4.56	3.14	1.69	0.920
1.60V	66.9	42.0	31.8	19.2	10.9	4.70	3.20	1.73	0.945

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

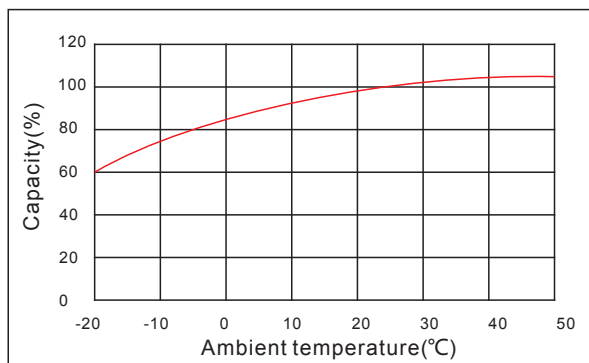
## Charging Characteristics



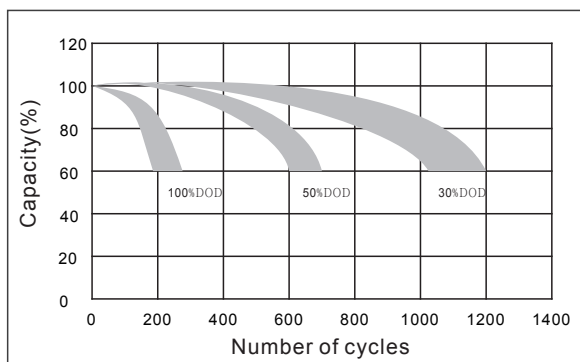
## Discharge Characteristics



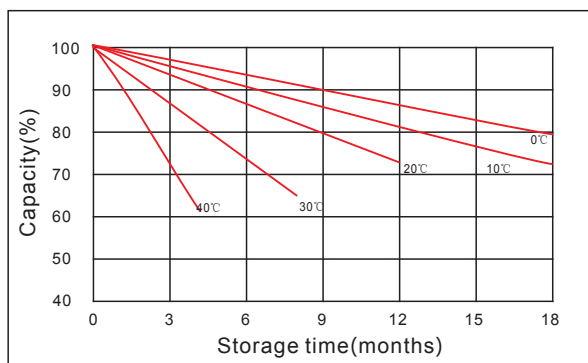
## Temperature Effects in Relation to Battery Capacity



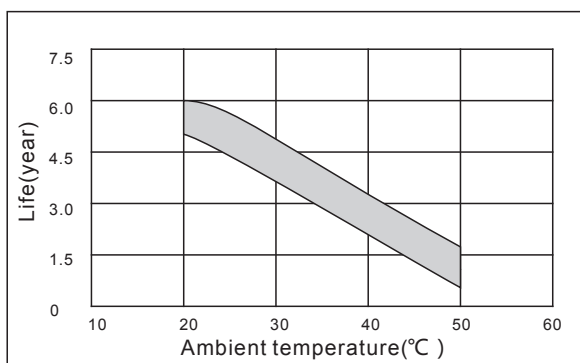
## The effect of discharge depth on cycle life



## Curves of self-discharge



## The effect of temperature on float life



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