

KB1240 12V 4.0Ah



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.

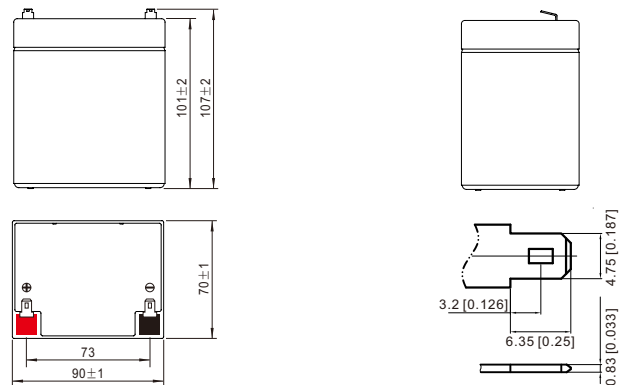
Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	90 / 3.54
	Width (mm / inch)	70 / 2.76
	Height (mm / inch)	101 / 3.98
	Total Height (mm / inch)	107 / 4.21
Approx Weight	(Kg / lbs)	1.26 / 2.78
Design Life	5 years	
Terminal	F1 / F2	
Container Material	ABS	
Rated Capacity	4.0Ah / 0.200A	(20hr, 1.75V / cell, 25°C / 77°F)
	3.72Ah / 0.372A	(10hr, 1.75V / cell, 25°C / 77°F)
	3.40Ah / 0.679A	(5hr, 1.75V / cell, 25°C / 77°F)
	2.28Ah / 2.28A	(1hr, 1.67V / cell, 25°C / 77°F)
Max. Discharge Current	60A (5s)	
Internal Resistance	Approx 63mΩ	
Operating Temp. Range	Discharge : -15 ~ 50°C (5 ~ 122°F)	
	Charge : 0 ~ 40°C (30 ~ 104°F)	
	Storage : -15 ~ 40°C (5 ~ 104°F)	
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial Charging Current less than 1.2A	
	Voltage: 14.4V ~ 15.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	Initial Charging Current less than 1.2A	
	Voltage: 13.5V ~ 13.8V at 25°C (77°F)	
	Temp. Coefficient: -20mV/°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 77°F (25°C)

Volts/cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	10.5	7.45	5.85	3.55	2.18	0.990	0.671	0.367	0.198
1.75V	11.3	7.81	6.06	3.64	2.22	1.01	0.679	0.372	0.200
1.70V	12.1	8.18	6.27	3.72	2.26	1.02	0.688	0.376	0.202
1.65V	12.6	8.40	6.41	3.77	2.28	1.03	0.694	0.379	0.203
1.60V	13.8	8.91	6.70	3.88	2.33	1.05	0.706	0.385	0.206

Dimensions and Terminal (Unit: mm (inches))



Applications

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

Certifications

ISO 9001:2008 ISO 14001:2008



Discharge Current vs. Discharge Voltage

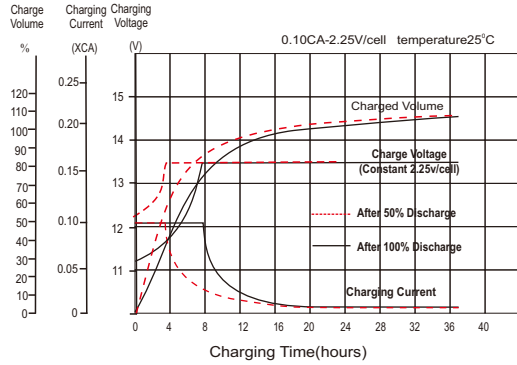
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current [A]	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

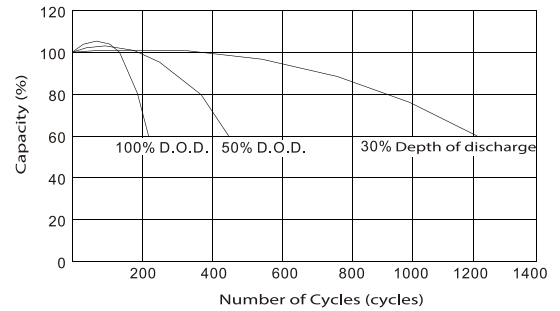
Volts/cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.80V	19.7	14.2	11.2	6.83	5.16	4.22	2.70	1.95	1.32
1.75V	21.2	14.8	11.5	6.97	5.24	4.28	2.73	1.97	1.34
1.70V	22.6	15.4	11.9	7.09	5.32	4.34	2.77	2.00	1.35
1.65V	23.5	15.8	12.1	7.17	5.37	4.38	2.79	2.01	1.36
1.60V	25.3	16.6	12.5	7.35	5.48	4.46	2.84	2.04	1.38

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

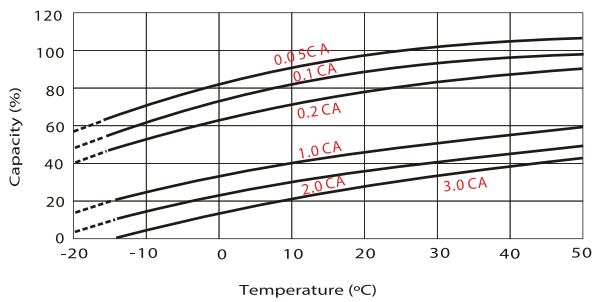
Charging Characteristics (float use)



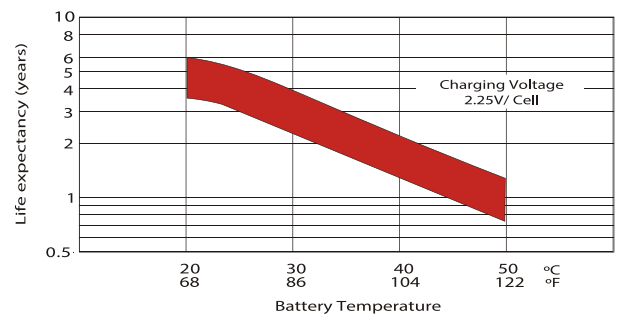
Cycle Life in Relation to Depth of Discharge



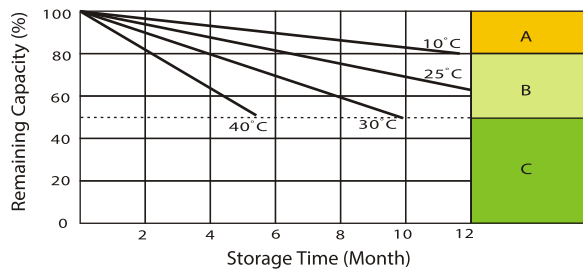
Temperature Effects in Relation to Battery Capacity



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:
 - Charged for above 3 days at limited current 0.25 CA and constant voltage 2.25V / cell.
 - Charged fo above 20 hours limited current 0.25CA and constant voltage 2.45V / cell.
 - 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.

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