

# KB645 6V 4.5Ah



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.



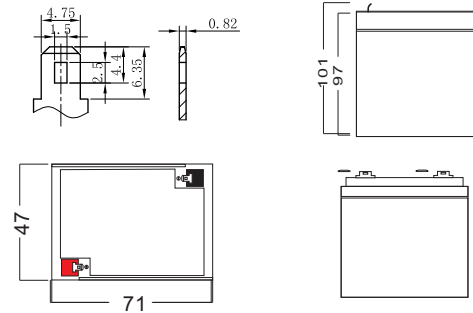
## Performance Characteristics

Nominal Voltage	6V	
Dimensions	Length (mm / inch)	71 / 2.80
	Width (mm / inch)	47 / 1.85
	Height (mm / inch)	97 / 3.82
	Total Height (mm / inch)	101 / 3.98
Approx Weight	(Kg / lbs) 0.75/1.65	
Design Life	5 years	
Terminal	F1	
Container Material	ABS	
Rated Capacity	4.50Ah / 0.225A	(20hr, 1.75V / cell, 25°C / 77°F)
	3.51Ah / 1.17A	(3hr, 1.75V / cell, 25°C / 77°F)
	2.97Ah / 2.97A	(1hr, 1.60V / cell, 25°C / 77°F)
Max. Discharge Current	67.5A (5s)	
Internal Resistance	Approx 25mΩ	
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. 1.13A	
Cycle Use	Voltage: 7.20V ~ 7.50V at 25°C (77°F)	
	Temp. Coefficient: -15mV/°C	
Standby Use	Voltage: 6.75V ~ 6.90V at 25°C (77°F)	
	Temp. Coefficient: -9mV/°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	12.4	9.41	6.44	4.95	2.52	1.10	0.752	0.414	0.216
1.75V	13.5	10.0	6.93	5.12	2.61	1.17	0.783	0.423	0.225
1.70V	14.5	10.5	7.43	5.24	2.70	1.18	0.819	0.432	0.230
1.65V	17.7	11.2	7.97	5.40	2.79	1.21	0.828	0.441	0.234
1.60V	17.8	11.7	8.69	5.69	2.97	1.24	0.846	0.446	0.239

## 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 / ISO 14001



## Discharge Current vs. Discharge Voltage

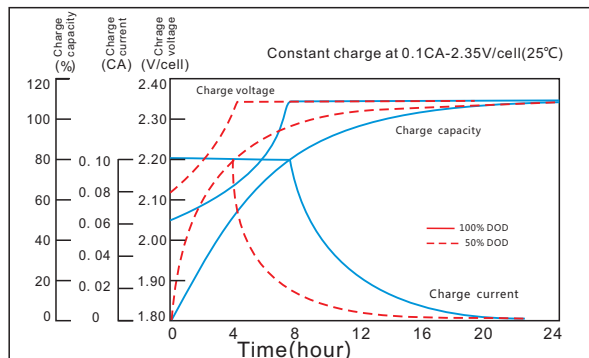
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current [A]	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

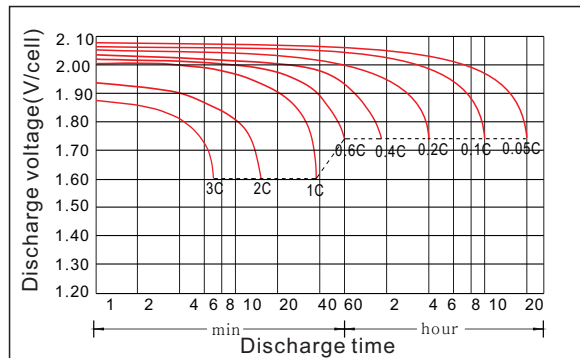
Volts/cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	23.0	18.1	13.1	9.35	4.76	2.15	1.46	0.804	0.443
1.75V	25.6	18.7	13.7	9.42	4.82	2.21	1.49	0.821	0.446
1.70V	28.2	19.3	14.3	9.52	4.97	2.24	1.52	0.840	0.456
1.65V	30.8	19.9	14.9	9.55	5.12	2.28	1.57	0.847	0.460
1.60V	33.5	21.0	15.9	9.62	5.45	2.35	1.60	0.863	0.473

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

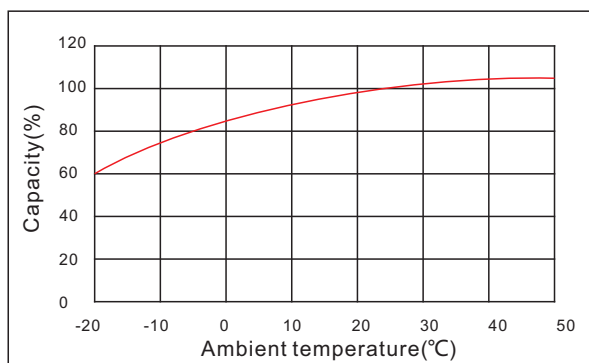
## Charging Characteristics



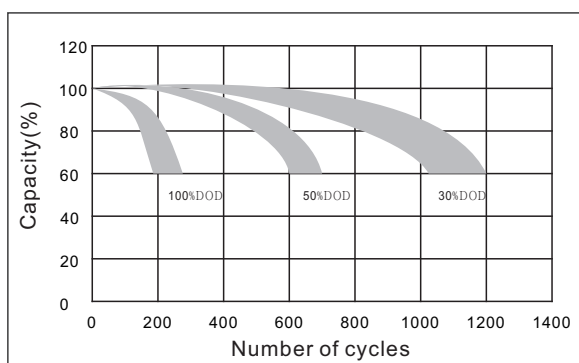
## Discharge characteristic



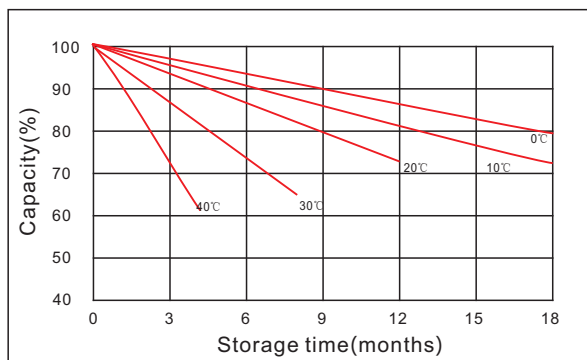
## Temperature Effects in Relation to Battery Capacity



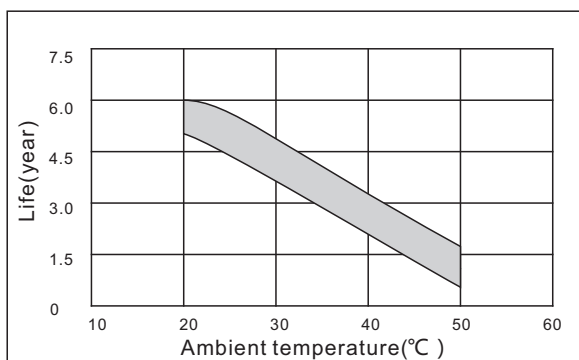
## The effect of discharge depth on cycle life



## Curves of self-discharge



## The effect of temperature on float life



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

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