

# 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

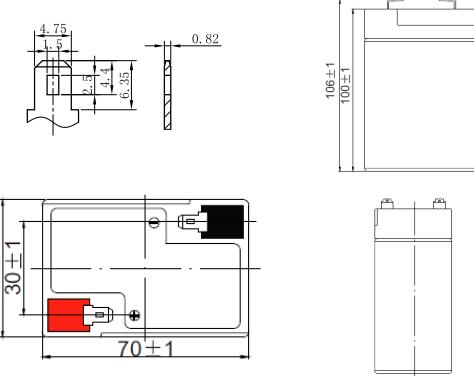
Nominal Voltage	6V		
Dimensions	Length (mm / inch)	70 / 2.76	
	Width (mm / inch)	47 / 1.85	
	Height (mm / inch)	100 / 3.94	
	Total Height (mm / inch)	106 / 4.17	
Approx Weight	(Kg / lbs)	0.81/1.79	
Design Life	5 years		
Terminal	F1		
Container Material	ABS		
Rated Capacity	4.50Ah / 0.225A	(20hr, 1.75V / cell, 25°C / 77°F)	
	4.26Ah / 0.426A	[10hr, 1.75V / cell, 25°C / 77°F]	
	3.84h / 0.768A	[5hr, 1.75V / cell, 25°C / 77°F]	
	2.80Ah / 2.80A	[1hr, 1.60V / cell, 25°C / 77°F]	
Max. Discharge Current	68A [5s]		
Internal Resistance	Approx 25mΩ		
Operating Temp. Range	Discharge : -15 ~ 50°C [5 ~ 122°F] Charge : -20 ~ 40°C [-4 ~ 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 1.35A Voltage: 7.2V ~ 7.5V at 25°C [77°F] Temp. Coefficient: -15mV/°C		
Standby Use	Initial Charging Current less than 1.35A Voltage: 6.75V ~ 6.9V at 25°C [77°F] Temp. Coefficient: -10mV/°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	13.7	9.27	7.31	4.32	2.60	1.11	0.758	0.421	0.223
1.75V	14.4	9.64	7.55	4.43	2.65	1.12	0.768	0.426	0.225
1.70V	15.1	10.0	7.81	4.55	2.70	1.14	0.778	0.430	0.227
1.67V	15.7	10.3	8.00	4.63	2.74	1.15	0.785	0.433	0.229
1.60V	16.6	10.7	8.27	4.75	2.80	1.17	0.797	0.439	0.231



## 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 9001:2008 ISO 14001:2008



## Discharge Current vs. Discharge Voltage

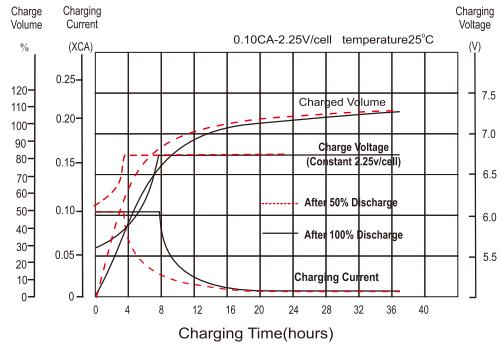
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

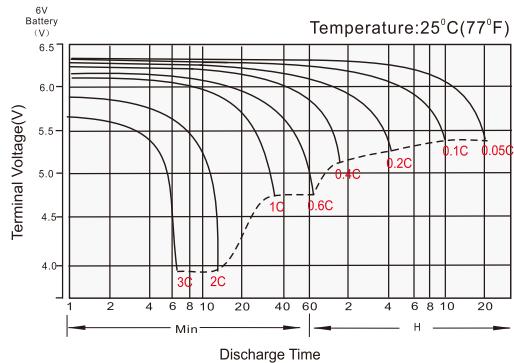
Volts/cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.80V	25.7	17.5	13.9	8.32	6.11	5.03	2.96	2.17	1.49
1.75V	26.8	18.1	14.3	8.49	6.22	5.12	3.00	2.20	1.51
1.70V	27.8	18.7	14.7	8.67	6.34	5.19	3.04	2.23	1.53
1.67V	28.5	19.1	15.0	8.80	6.42	5.26	3.07	2.25	1.54
1.60V	29.6	19.7	15.4	9.00	6.54	5.36	3.12	2.28	1.56

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

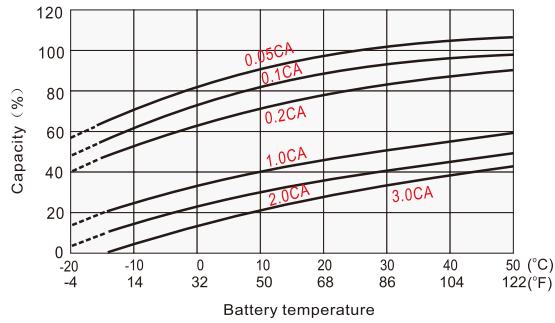
### Charging Characteristics (float use)



### Discharge Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

