KB1220EV 12V 23Ah C2

The Electric Vehicle batteries were developed based on a specialized grid as well as active material. These batteries have anchored plates and a high impact reinforced polypropylene case which can withstand the most extreme environments and vibrations. The KB EV series is constituted of batteries of several different sizes so that they may be used for many different applications. The KB EV series uses dry cell technology that allows for a superior performance and an unparalleled quality and reliability. Through the use of the dry cell technology this series was designed for sensitive environments that require improved life cycles for commercial, industrial, residential and private applications. Without any need for maintenance and with an advanced construction the EV series is an excellent option for many applications.



Performance Characteristics

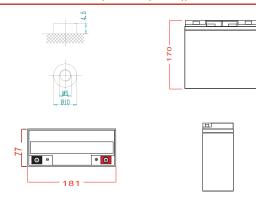
Nominal Voltage	12V					
Dimensions	Length (mm / inch)	181 / 7.1				
	Width (mm / inch)	77 / 3.0				
	Height (mm / inch)	170 / 6.7				
	Total Height (mm / inch)	170 / 6.7				
Approx. Weight	(Kg / lbs)	6.85 / 15.1				
Design Life	5 years					
Terminal	M5					
Container Material	ABS					
Rated Capacity	29.5 Ah / 2.95 A	(10hr, 1.75V / cell, 20°C / 77°F)				
	23.0 Ah /11.5 A	(2hr, 1.75V / cell, 20°C / 77°F)				
	20.0 Ah / 20.0A	(1hr, 1.75V / cell, 20°C / 77°F)				
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 Method	Float use: 13.7~13.9V at 25°C (77°F)					
-	Cycle use: 14.7~14.9V at 25°C (77°F)					
	Max charge current 4.60A					
Self Discharge	Fully charged Kaise Electric Vehicle 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.					

Constant Current Discharge (Amperes) at 25°C (77°F)

Volts/cell	5min	15min	30min	1h	2h	5h	10h	20h	
1.80V	82.9	49.5	32.3	19.5	11.3	5.45	2.91	1.56	
1.75V	92.5	53.2	33.7	20.0	11.5	5.59	2.95	1.57	
1.70V	101	55.0	34.1	20.4	11.7	5.62	2.98	1.58	
1.65V	105	56.2	34.7	20.0	11.7	5.71	3.00	1.59	
1.60V	108	57.9	35.3	19.5	11.8	5.75	3.03	1.60	



Dimensions and Terminal (Unit: mm (inches))



Applications

Electric wheelchair Electric vehicle / golf car Electric toys Renewable energies Marine equipment

Certifications

ISO 9001:2008 ISO 14001:2008



Discharge Current vs. Discharge Voltage

Final discharge 1,8 voltage V/CELL		1,75	1,7	1,6	
Discharge current (A)	l ≤ 0,1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA	

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

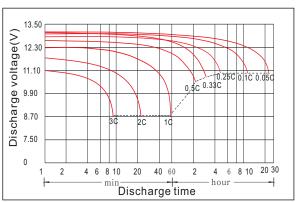
Volts/cell	5min	15min	30min	1h	2h	5h	10h	20h
1.80V	135	84.3	55.6	34.3	19.9	9.63	5.06	2.80
1.75V	146	89.4	57.2	34.5	20.0	9.70	5.14	2.81
1.70V	157	90.1	57.5	34.8	20.2	9.78	5.18	2.83
1.65V	158	90.9	57.5	35.0	20.3	9.86	5.26	2.85
1.60V	164	92.8	57.9	35.4	20.3	9.89	5.29	2.86

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

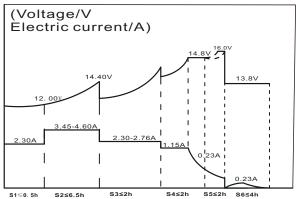
KB1220EV 12V 23Ah C2



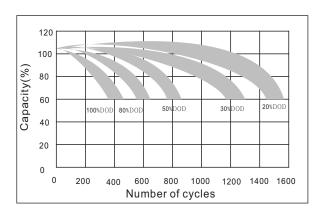
Disharging Characteristic



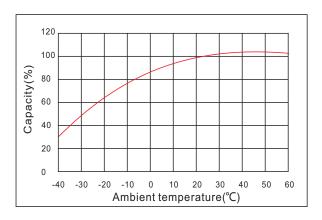
Charging Characteristics



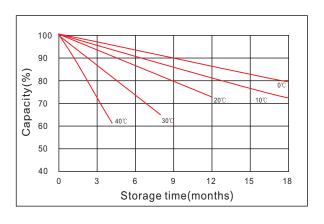
The effect of discharge depth on cycle life



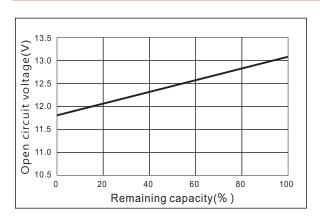
Temperature Effects on Capacity



Curves of self-discharge



Curves of open circuit voltage vs. capacity



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

