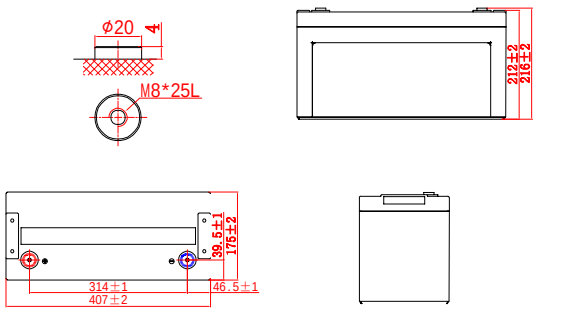
KB12120EV 12V 120Ah C_3

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.

Dimensions and Terminal (Unit: mm (inches))



Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	407 / 16.0
	Width (mm / inch)	175 / 6.89
	Height (mm / inch)	212 / 8.35
	Total Height (mm / inch)	216 / 8.50
Approx. Weight	(Kg / lbs)	40.0 / 88.2
Design Life	5 years	
Terminal	M8	
Container Material	ABS	
Rated Capacity	137 Ah / 13.7 A	(10hr, 1.75V / cell, 20ºC / 77ºF)
	120 Ah /40.0 A	(3hr, 1.75V / cell, 20ºC / 77ºF)
	102 Ah / 102 A	(1hr, 1.75V / cell, 20ºC / 77ºF)
Operating Temp. Range	Discharge : -20 ~ 50ºC (-4 ~ 122ºF)	
	Charge : -20 ~ 50ºC (-4 ~ 122ºF)	
	Storage : -20 ~ 50ºC (-4 ~ 122ºF)	
Charge Method	Float use: 13.7~13.9V at 25ºC (77ºF)	
	Cycle use: 14.7~14.9V at 25ºC (77ºF)	
	Max charge current 18.0A	
Self Discharge	Fully charged Kaise Electric Vehicle batteries may be stored for up to 6 months at 25ºC (77ºF) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

Applications

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

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 ≤ 0,1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

Constant Current Discharge (Amperes) at 25ºC (77ºF)

Volts/cell	30min	1h	2h	3h	5h	8h	10h	20h
1.80V	165	99.4	55.0	39.8	25.4	16.3	13.6	7.47
1.75V	172	102	56.0	40.0	26.0	16.3	13.7	7.50
1.70V	173	104	56.8	40.5	26.3	16.4	13.8	7.53
1.65V	177	104	57.3	41.2	26.6	16.6	14.0	7.58
1.60V	180	105	57.7	41.5	26.8	16.7	14.1	7.61

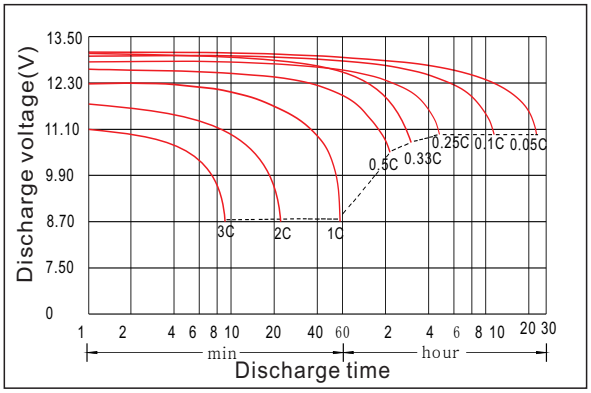
Constant Power Discharge (Watts per cell) at 25ºC (77ºF)

Volts/cell	30min	1h	2h	3h	5h	8h	10h	20h
1.80V	312	192	107	76.9	49.3	31.7	26.1	14.8
1.75V	321	194	108	77.0	49.9	32.0	26.4	14.9
1.70V	323	196	108	77.5	50.3	32.1	26.5	14.9
1.65V	323	197	109	78.0	50.6	32.3	26.8	15.0
1.60V	326	199	109	79.0	50.9	32.6	27.1	15.1

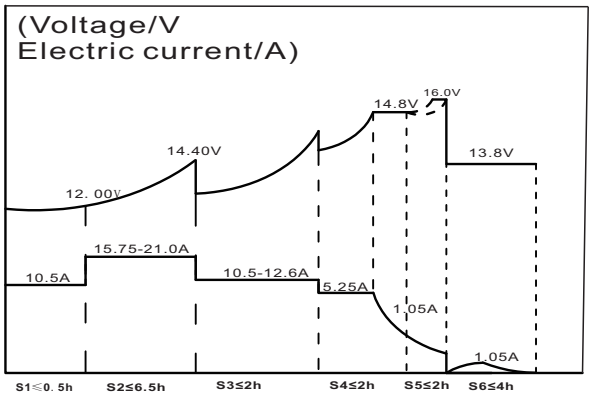
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

KB12120EV 12V 120Ah C_3

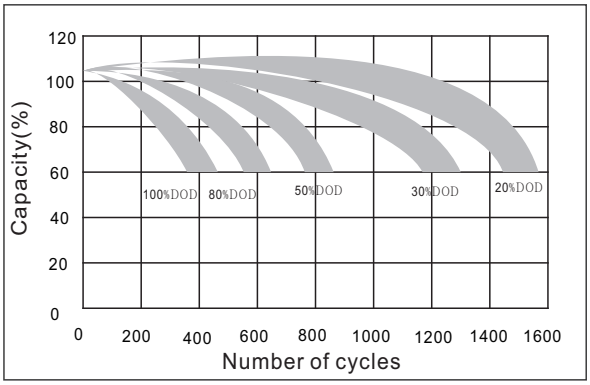
Disharging Characteristic



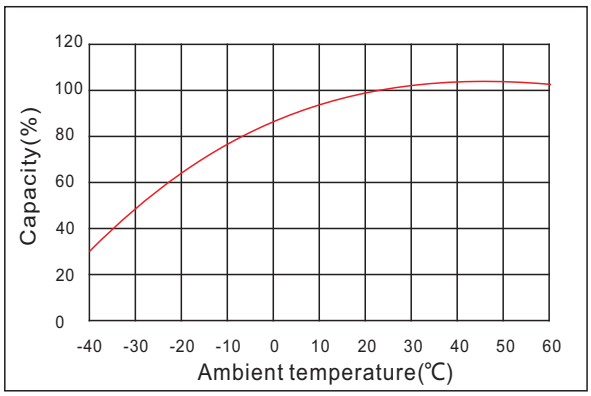
Charging Characteristics



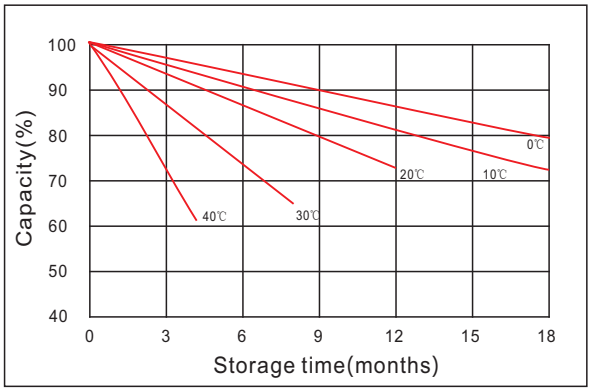
The effect of discharge depth on cycle life



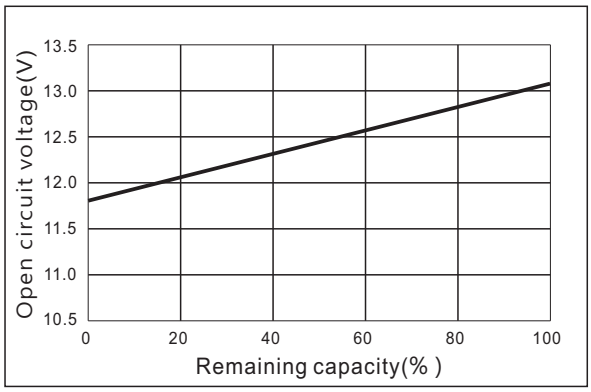
Temperature Effects on Capacity



Curves of self-discharge



Curves of open circuit voltage vs. capacity



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

2025/V/K

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