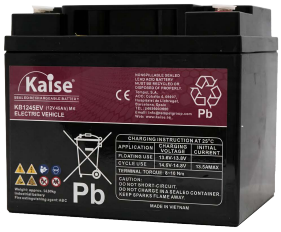
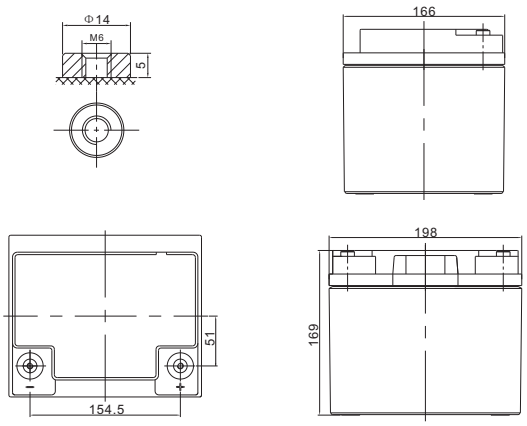
KB1245EV 12V 45Ah C_{20}

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)	198±2 / 7.80
	Width (mm / inch)	166±2 / 6.54
	Height (mm / inch)	169±2 / 6.65
	Total Height (mm / inch)	169±2 / 6.65
Approx. Weight	(Kg / lbs)	14.0 / 30.1
Design Life	5 years	
Terminal	Default M6, M5 Optional	
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.	
Max. Discharge Current	450A (5 sec)	
Internal Resistance	≤7.0 mΩ (Full Charge Condition @25℃)	
Rated Capacity	45.0 Ah / 2.25A	(20hr, 1.75V / cell, 20ºC / 77ºF)
	43.3 Ah / 4.33 A	(10hr, 1.75V / cell, 20ºC / 77ºF)
	34.8 Ah / 11.6 A	(3hr, 1.75V / cell, 20ºC / 77ºF)
Operating Temp. Range	Discharge : -20 ~ 60ºC (-4 ~ 140ºF)	
	Charge : 0 ~ 50ºC (32 ~ 122ºF)	
	Storage : -20 ~ 60ºC (-4 ~ 140ºF)	
Charge Method	Float use: 13.6~13.8V at 25ºC (77ºF)	
	Cycle use: 14.6~14.8V at 25ºC (77ºF)	
	Max charge current 13.5A	
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 1400

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	5min	15min	30min	1h	2h	3h	10h	20h
1.80V	118.1	66.1	42.1	23.8	14.2	11.2	4.28	2.23
1.75V	129.6	71.6	44.1	24.7	14.7	11.6	4.33	2.25
1.70V	138.8	77.0	46.1	25.7	15.3	12.0	4.39	2.28
1.65V	145.9	82.2	48.3	26.6	15.8	12.3	4.45	2.31
1.60V	151.4	85.9	50.3	27.5	16.3	12.7	4.51	2.34

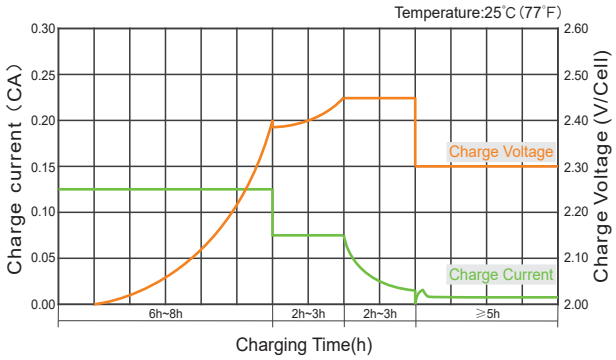
Constant Power Discharge (Watts per cell) at 25ºC (77ºF)

Volts/cell	5min	15min	30min	1h	2h	3h	10h	20h
1.80V	218.6	122.5	79.7	45.8	27.5	21.8	8.45	4.41
1.75V	235.8	130.8	82.6	47.4	28.3	22.5	8.55	4.45
1.70V	248.0	138.6	85.5	48.9	29.2	23.0	8.65	4.50
1.65V	257.8	145.8	88.6	50.2	30.1	23.6	8.77	4.55
1.60V	260.5	150.2	91.3	51.7	30.9	24.2	8.87	4.61

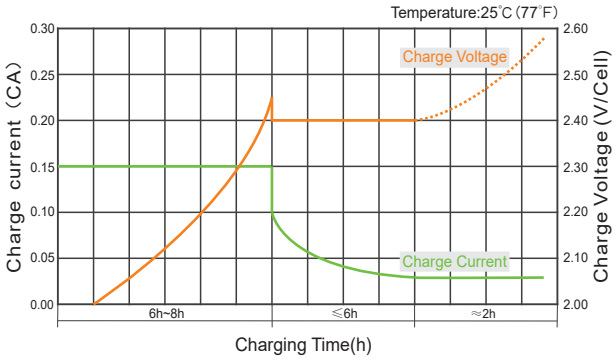
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

KB1245EV 12V 45Ah C20

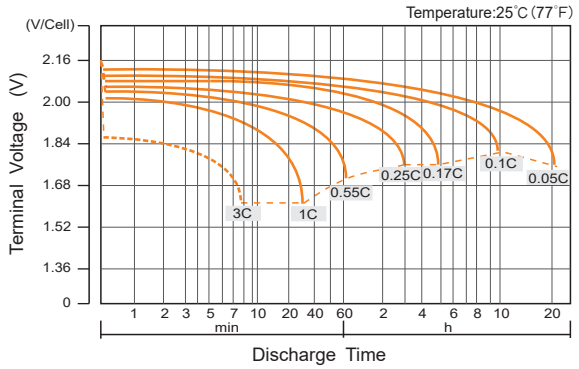
Charge Characteristic Curve for Cycle Use(IIUU)



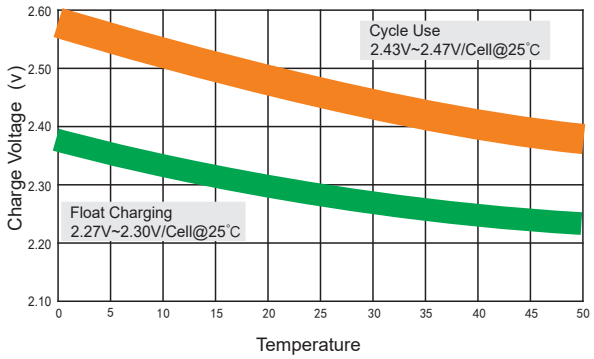
Charge Characteristic Curve For Cycle Use(IUI)



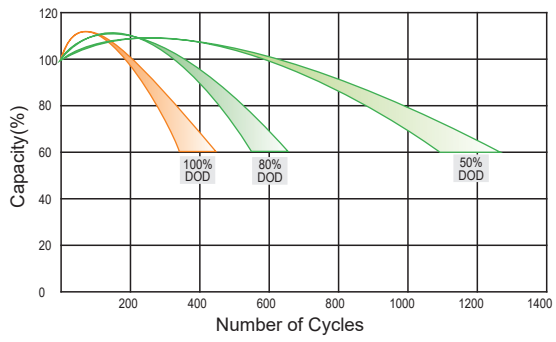
Discharge Characteristics Curve



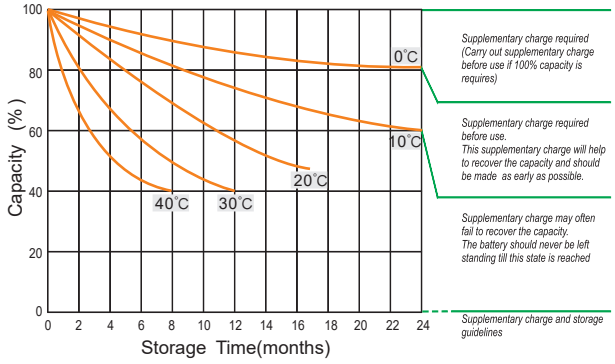
Relationship Between Charging Voltage and Temperature



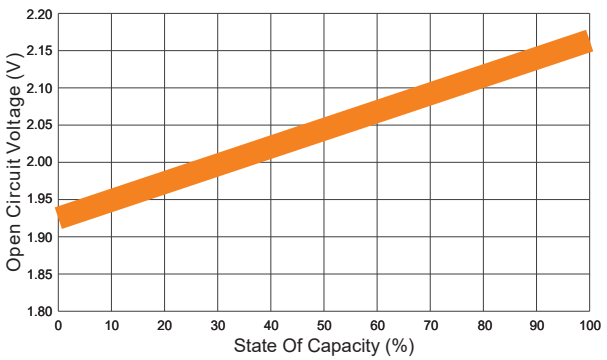
Cycle Life in Relation to Depth of Discharge



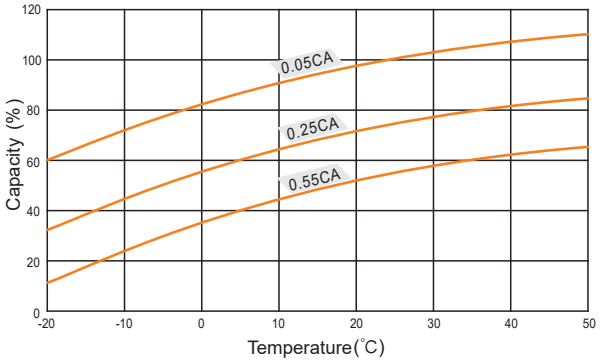
Storage Characteristics



Relationship of OCV And State of Charge(20℃)



Temperature Effects on Capacity



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

2026/V/R

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