

KBHR12120 12V 12Ah



The Kaise HR batteries were specially designed for applications that demand a very high energy output. With an optimized design of the grids and an excellent formula for pasting the plates, the HR series can deliver up to 40% more than the standard series.

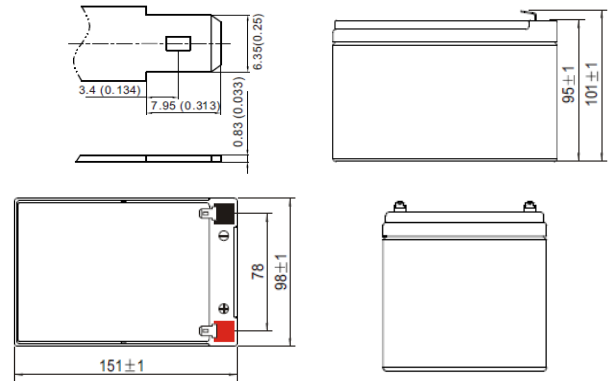
Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	151 / 5.95
	Width (mm / inch)	98 / 3.86
	Height (mm / inch)	95 / 3.74
	Total Height (mm / inch)	101 / 3.98
Approx Weight	(Kg / lbs) 4.05 / 8.93	
Design Life	5 years	
Terminal	Faston F2	
Container Material	ABS	
Rated Capacity	51.3Watts / Cell	(15min, 1.60V / cell, 25°C / 77°F)
	13.68Ah	(20hr, 1.80V / cell, 25°C / 77°F)
Max. Discharge Current	180A (5s)	
Internal Resistance	Approx 14mΩ	
Operating Temp. Range	Discharge : -15~55°C (5~131°F)	
	Charge: 0 ~ 40°C (32~104°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 2.40A.	
	Voltage: 14.4V ~ 14.7V at 25°C (77° F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	Initial Charging Current less than 2.40A.	
	13.5V ~ 13.8V at 25°C (77° F)	
	Temp. Coefficient: -20mV/°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 High Rate 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	10min	15min	20min	30min	1h
1.80V	27.4	22.5	18.3	13.5	7.59
1.75V	30.1	24.6	19.8	14.0	7.94
1.70V	32.7	26.3	20.8	14.6	8.19
1.60V	37.6	29.4	23.5	16.2	8.77

Dimensions and Terminal (Unit: mm (inches))



Applications

UPS
High power backup supply
Electric facilities
Power tools

Certifications

ISO 9001:2008 ISO 14001:2008



Discharge Current vs. Discharge Voltage

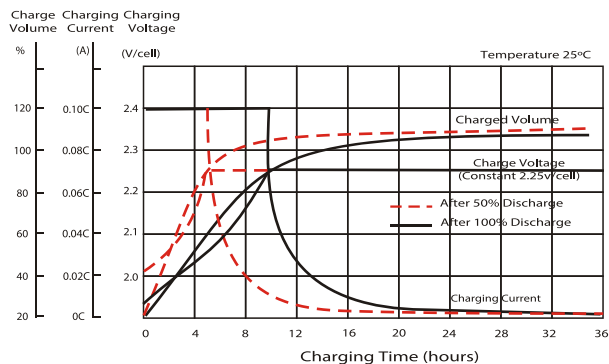
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

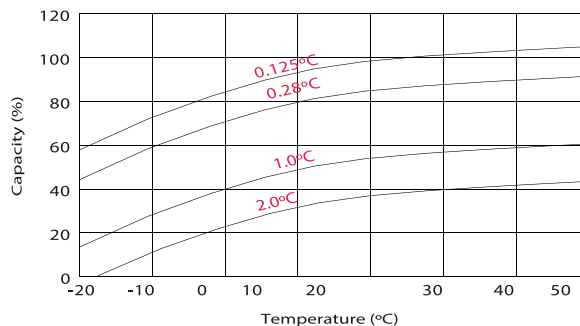
Volts/cell	10min	15min	20min	30min	1h
1.80V	49.9	41.5	34.0	25.2	14.6
1.75V	53.9	44.8	36.4	26.0	15.1
1.70V	57.4	47.1	37.9	26.9	15.6
1.60V	63.9	51.3	42.1	29.5	16.5

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

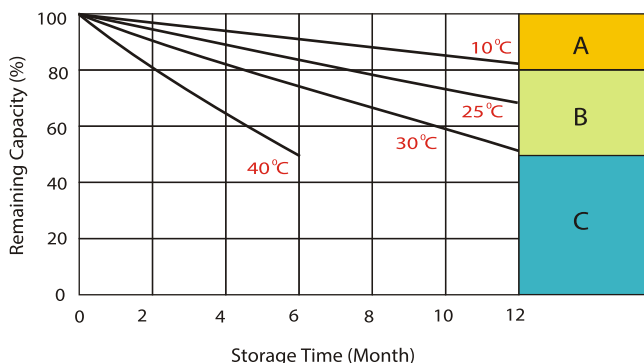
Charging Characteristics (cycle use)



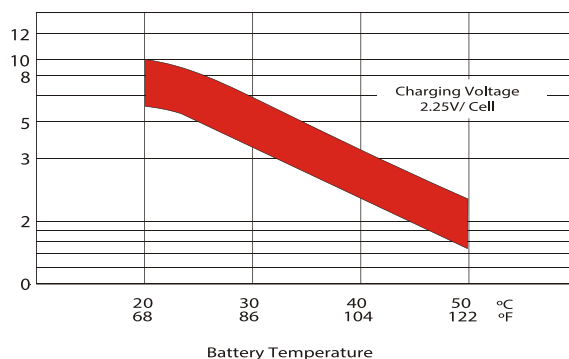
Temperature Effects in Relation to Battery Capacity



Self Discharge Characteristics



Effect of Temperature on Long Term Float Life



- A** No supplementary charge required
(carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary charge required before use. Optional charging way a below:
 1. Charged for above 3 days at limited current 0.25 CA and constant voltage 2.25V / cell.
 2. Charged for above 20 hours limited current 0.25CA and constant voltage 2.45V / cell.
 3. Charged for 8-10 hours at limited current 0.05 CA.
- C** Supplementary charge often fail to recover the capacity.
The battery should never be left standing till this is reached.

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

