

KBHR12820 12V 82Ah



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.



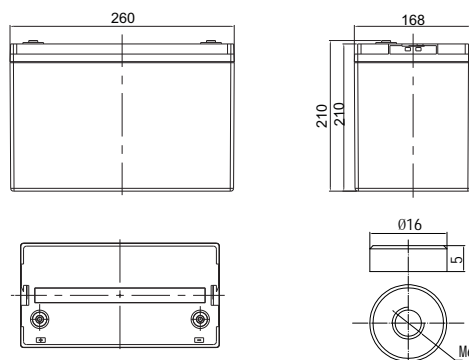
Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	260 / 10.2
	Width (mm / inch)	168 / 6.61
	Height (mm / inch)	210 / 8.27
	Total Height (mm / inch)	210 / 8.27
Approx Weight	(Kg / lbs)	25.0 / 55.1
Design Life	10 years	
Terminal	M6	
Container Material	ABS (UL94-HB, UL94-V0 Optional)	
Rated Capacity	85.0Ah / 8.50A	(10hr, 1.80V / cell, 25°C / 77°F)
	46.7Ah / 46.7A	(1hr, 1.70V / cell, 25°C / 77°F)
	50.0Ah / 100.0A	(30min, 1.70V / cell, 25°C / 77°F)
	40.0Ah / 160.0A	(15min, 1.70V / cell, 25°C / 77°F)
Max. Discharge Current	850A (5s)	
Internal Resistance	Approx 4.70mΩ	
Operating Temp. Range	Discharge: -20 ~ 50°C (-4 ~ 122°F)	
	Charge: -20 ~ 50°C (-4 ~ 122°F)	
	Storage: -20 ~ 50°C (-4 ~ 122°F)	
Cycle Use	Initial Charging Current less than 21.25A	
	Voltage: 14.4V-15.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	Initial Charging Current less than 21.25A	
	Voltage: 13.7V ~ 13.9V at 25°C (77°F)	
	Temp. Coefficient: -18mV/°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	30min	45min	1h
1.80V	184	143	92	65.7	43.5
1.75V	203	152	96	66.4	45.1
1.70V	224	160	100	67.0	46.7
1.60V	238	165	102	67.7	47.7
1.60V	270	177	108	68.4	50.0

Dimensions and Terminal (Unit: mm (inches))



Applications

UPS
High power backup supply
Electric facilities
Power tools

Certifications

ISO 9001 / ISO 14001



Discharge Current vs. Discharge Voltage

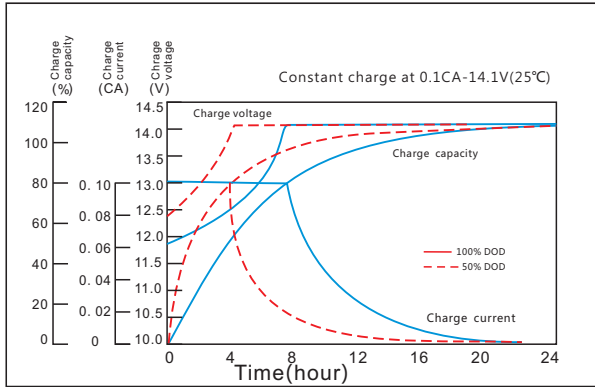
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

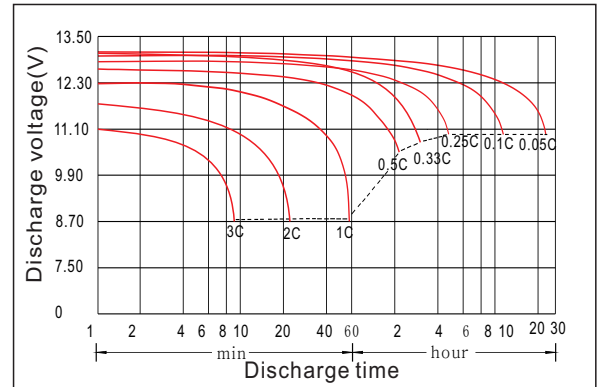
Volts/cell	10min	15min	30min	45min	1h
1.80V	330	285	184	127	16.4
1.75V	356	299	191	128	16.5
1.70V	381	312	197	129	16.7
1.60V	398	320	201	130	16.8
1.60V	432	338	210	131	17.0

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

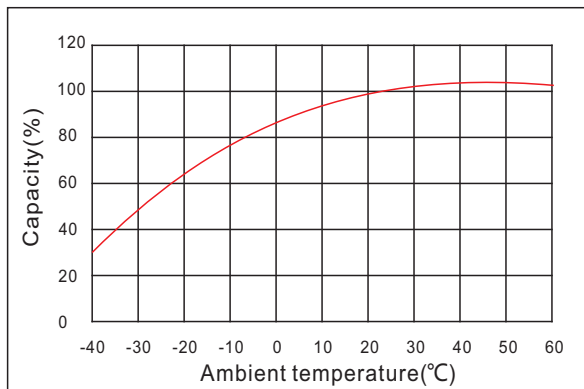
Charging Characteristics



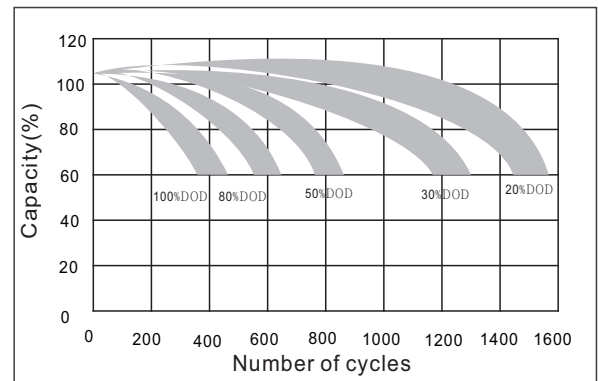
Discharge characteristic



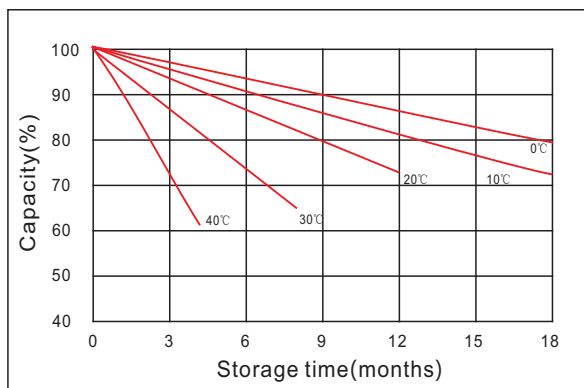
The effect of temperature on capacity



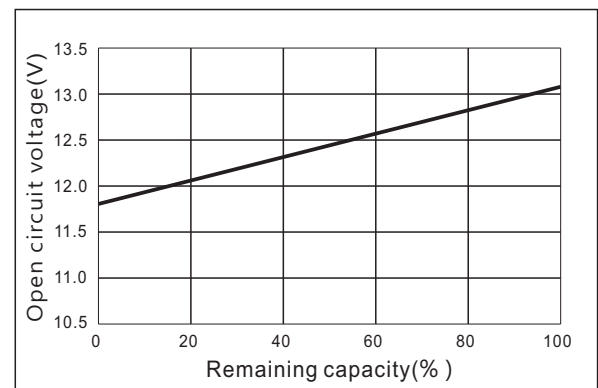
The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity



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

