

# KBGS122500 12V 250Ah



The Kaise Solar range is mainly used in the renewable energies industry, given their optimal performance in cyclic use. With lower acid density, excess of electrolyte and larger distance between plates the batteries maintain a low temperature and also slows down the plate grid corrosion speed. These batteries have a unique plate grid configuration which, alongside the high quality AGM separator and the battery management system, ensures the batteries have a longer service life. The valves were specially designed to control water loss and prevent air and other elements from getting in.

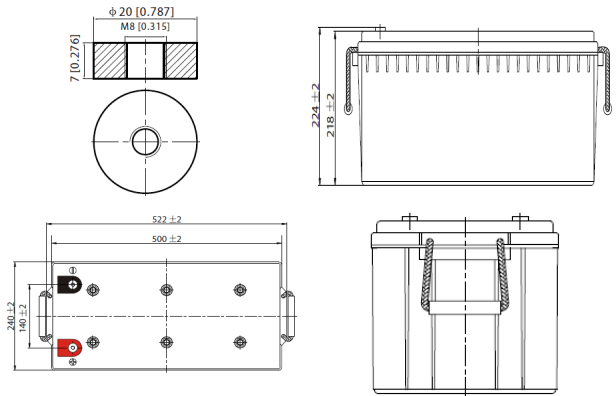
## Performance Characteristics

Nominal Voltage	12V		
Dimensions	Length (mm / inch)	522 / 20.55	
	Width (mm / inch)	240 / 9.45	
	Height (mm / inch)	218 / 8.58	
	Total Height (mm / inch)	224 / 8.81	
Approx. Weight	(Kg / lbs)	58.0 / 127.9	
Design Life	8 - 12 years		
Terminal	M8		
Container Material	ABS		
Rated Capacity	250.0 Ah / 2.50 A	(100hr, 1.80V/cell, 25°C / 77°F)	
	200.0 Ah / 20.0 A	(20hr, 1.80V/cell, 25°C / 77°F)	
	165.0 Ah / 33.0 A	(10hr, 1.80V/cell, 25°C / 77°F)	
	143.4 Ah / 47.8 A	(5hr, 1.75V/cell, 25°C / 77°F)	
	115.9 Ah / 115.9 A	(3hr, 1.60V/cell, 25°C / 77°F)	
Max. Discharge Current	18000A (5s)		
Internal Resistance	Approx 2.8mΩ		
Operating Temp. Range	Discharge : -15 ~ 50°C (5 ~ 122°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 50A		
	Voltage: 14.4V ~ 15.0V at 25°C (77°F)		
	Temp. Coefficient: -30mV/°C		
Standby Use	Initial Charging Current less than 50A		
	Voltage: 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 Solar 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.		

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

Volts/cell	15min	30min	45min	1h	5h	10h	20h	100h
1.80V	249.2	159.2	119.2	96.7	32.2	19.4	10.0	2.50
1.75V	277.8	169.7	126.1	102.3	33.0	19.6	10.1	2.55
1.70V	300.1	179.0	132.4	106.8	33.9	19.7	10.3	2.58
1.65V	316.0	187.5	136.4	110.6	34.7	19.9	10.4	2.62
1.60V	340.7	199.2	144.2	115.9	35.3	20.2	10.5	2.64

## Dimensions and Terminal (Unit: mm (inches))



## Applications

- Renewable Energy
- Alarm systems
- Electric Test Equipment
- Emergency lighting systems
- Marine equipment
- Telecommunications systems

## Certifications

ISO 9001:2008 ISO 14001:2008



## Discharge Current vs. Discharge Voltage

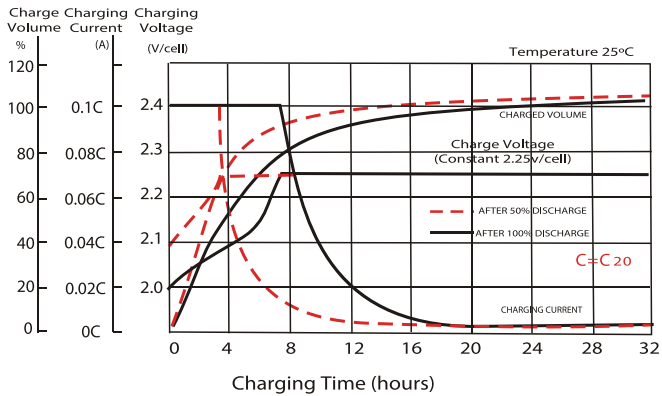
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

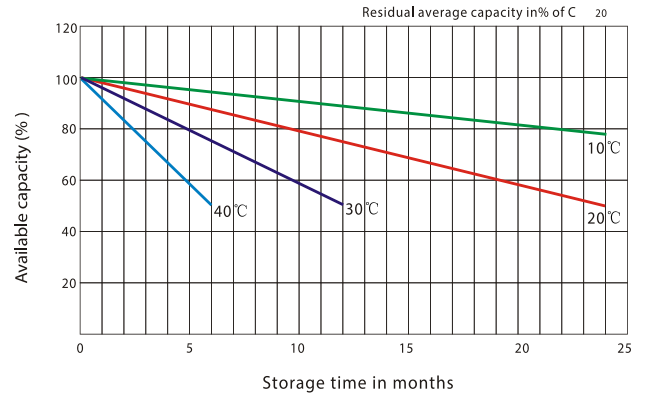
Volts/cell	15min	30min	45min	1h	5h	10h	20h
1.80V	462.7	301.3	228.5	186.4	63.1	38.5	19.9
1.75V	509.1	318.4	239.6	196.2	64.5	38.8	20.0
1.70V	541.03	333.5	250.2	204.0	66.1	39.0	20.4
1.65V	564.6	346.1	255.7	209.8	67.4	39.3	20.6
1.60V	598.6	364.7	268.6	218.8	68.4	39.9	20.7

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

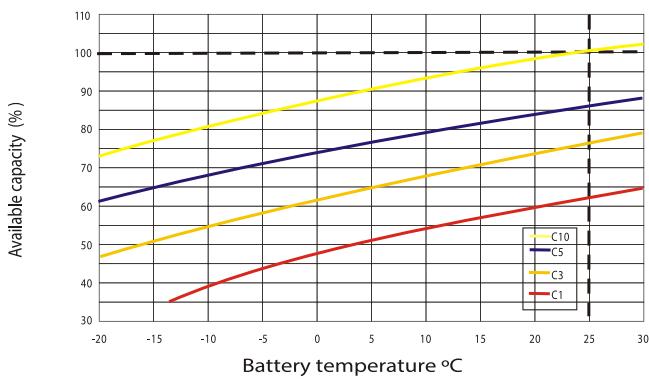
## Charging Characteristic (float use)



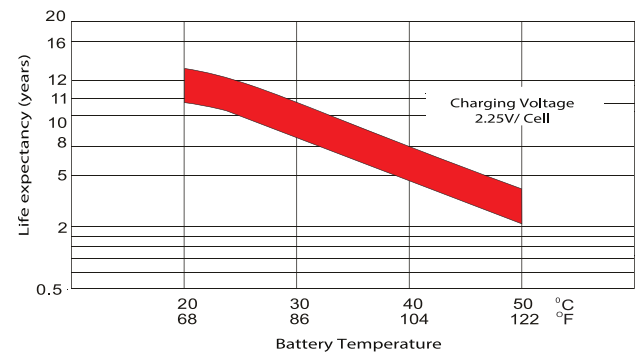
## General Relation of Capacity vs. Storage Time



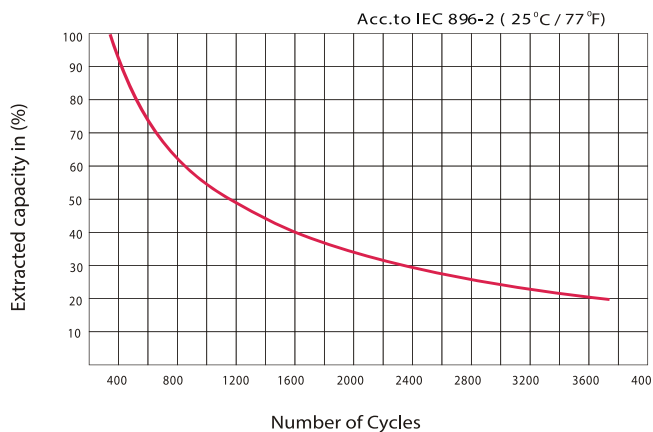
## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



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

