

# KBAS12900 12V 90Ah



The Kaise Solar Range is mainly used in renewable energy applications, due to its optimal cyclic use performance. It is specially designed for frequent cyclic charge and discharging, providing superior high integrity and reliability. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. Kaise Solar Range offer approx. 30% more cyclic life than the Standard Series.



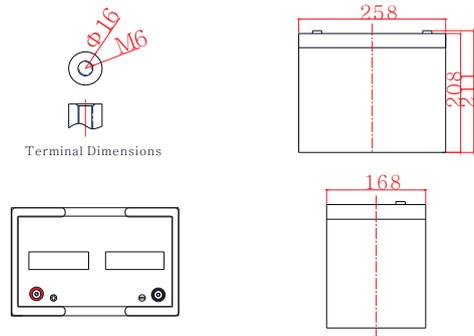
## Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	258 / 10.2
	Width (mm / inch)	168 / 6.61
	Height (mm / inch)	212 / 8.35
	Total Height (mm / inch)	215 / 8.46
Approx. Weight	(Kg / lbs) 22.5 / 49.7	
Design Life	12 years (floating charge)	
Terminal	M6	
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.	
Rated Capacity	87.0 Ah / 0.87 A	(100hr, 1.60V/c, 25°C /
	71.7 Ah / 7.17 A	77°F) (10hr, 1.65V/c,
	45.9 Ah / 45.9 A	25°C / 77°F) (1hr, 1.65V/c,
Max. Discharge Current	840A (5s)	25°C / 77°F)
Internal Resistance	Approx 8.0mΩ	
Operating Temp. Range	Discharge : -40 ~ 60°C (-40~ 140°	
	F) Charge : -20 ~ 50°C (-4~ 122°F)	
	Storage : -20 ~ 50°C (-4~ 122°F)	
Charge Current	Max. 17.5A	
Cycle Use	Voltage: 14.4V ~ 15.0V at 25°C (77°F)	
	Temp. Compensation: -30mV/°C	
Float Voltage Use	Voltage: 13.5V ~ 13.8V at 25°C (77°F)	
	Temp. Compensation: -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 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 25°C (77°F)

Volts/cell	1h	3h	5h	8h	10h	20h	100h
1.80V	43.8	18.4	12.2	8.20	7.00	3.74	0.84
1.75V	44.9	18.6	12.5	8.27	7.03	3.76	0.84
1.70V	45.6	18.8	12.6	8.34	7.10	3.77	0.85
1.65V	45.9	19.0	12.8	8.40	7.17	3.79	0.86
1.60V	46.2	19.2	12.9	8.47	7.24	3.81	0.87

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



## Applications

- Renewable Energy
- Pump Systems
- Traffic lights
- Street lightening
- Marine equipment
- Caravans & Boats
- Weekend cottage camping
- Telecommunications systems

## Certifications

ISO 9001 / ISO 14001



## Discharge Current vs. Discharge Voltage

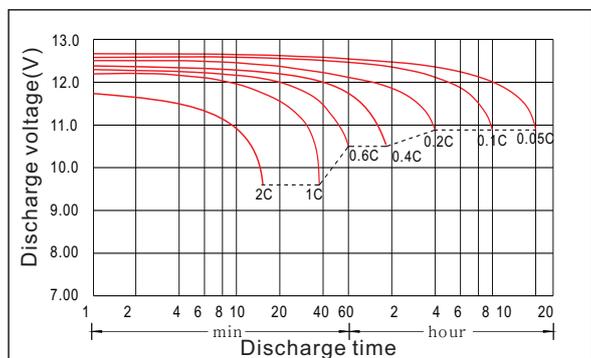
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

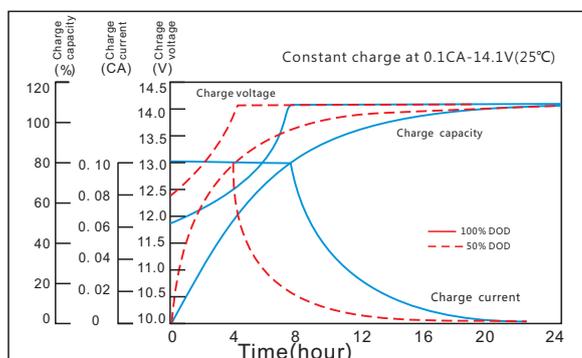
Volts/cell	1h	3h	5h	8h	10h	20h	100h
1.80V	84.6	35.6	23.7	16.0	13.4	7.41	3.490
1.75V	85.3	35.7	24.0	16.1	13.5	7.44	3.514
1.70V	86.0	35.9	24.1	16.3	13.7	7.48	3.518
1.65V	86.7	36.1	24.3	16.3	13.8	7.51	3.547
1.60V	87.3	36.6	24.5	16.5	13.9	7.54	3.561

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

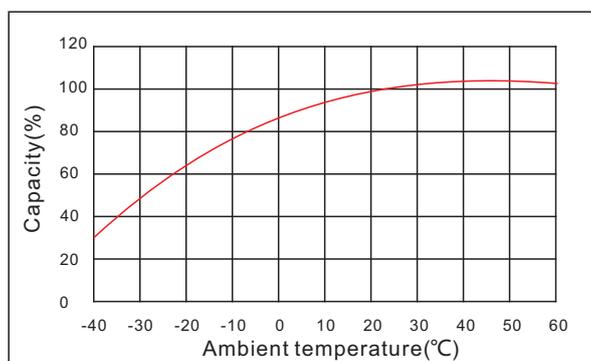
## Discharge Characteristics Curve



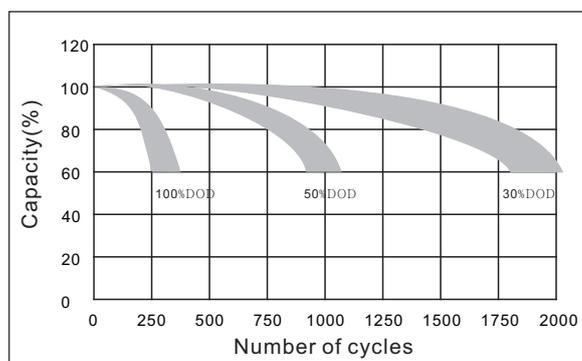
## Charge Characteristic Curve



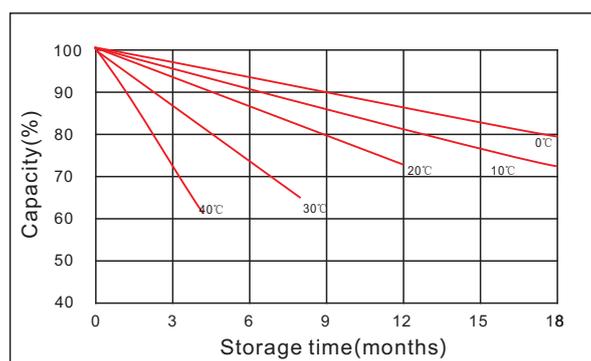
## The Effect of Temperature on Capacity



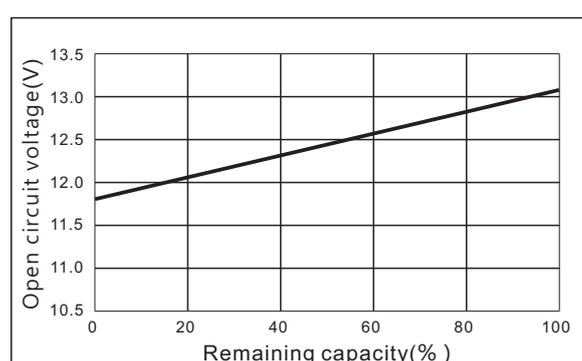
## The Effect of Discharge Depth on Cycle Life



## Curves of Self-Discharge



## The Effect of Temperature on Float Life



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

2025/1/K

