

KBAS121600 12V 160Ah



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.

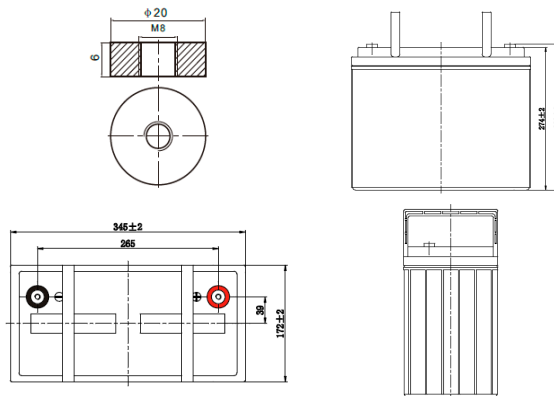
Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	345 / 13.6
	Width (mm / inch)	172 / 6.77
	Height (mm / inch)	274 / 10.79
	Total Height (mm / inch)	280 / 11.02
Approx. Weight	(Kg / lbs) 41.2 / 90.8	
Design Life	8 - 12 years	
Terminal	M8	
Container Material	ABS	
Rated Capacity	160.0 Ah / 1.60 A	(100hr, 1.80V/cell, 25°C / 77°F)
	140.4 Ah / 7.02 A	(20hr, 1.80V/cell, 25°C / 77°F)
	135.0 Ah / 13.5 A	(10hr, 1.80V/cell, 25°C / 77°F)
	116 Ah / 23.2 A	(5hr, 1.75V/cell, 25°C / 77°F)
	82.4 Ah / 82.4 A	(1hr, 1.60V/cell, 25°C / 77°F)
Max. Discharge Current	1350A (5s)	
Internal Resistance	Approx 4.0mΩ	
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 32A	
	Voltage: 14.4V ~ 15.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	Initial Charging Current less than 32A	
	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	186.7	121.2	90.4	71.3	22.7	13.5	7.02	1.60
1.75V	203.9	125.8	93.8	74.6	23.2	13.6	7.09	1.62
1.70V	217.7	130.9	97.6	76.9	23.8	13.8	7.22	1.68
1.65V	231.4	138.1	100.0	79.5	24.5	14.1	7.32	1.70
1.60V	247.5	145.8	104.2	82.4	25.3	14.2	7.36	1.73

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

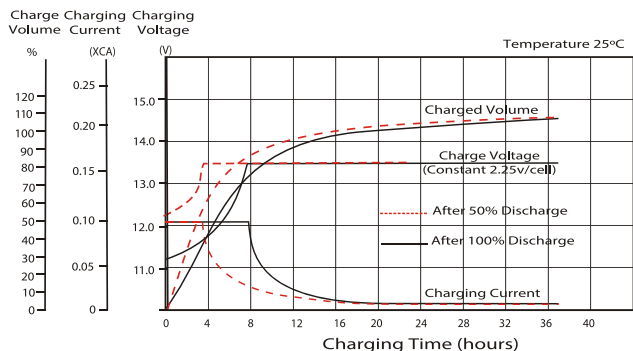
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	I ≤ 0.1CA	0.25CA ≥ I > 0.1CA	0.55CA ≥ I > 0.25CA	I > 0.55CA

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

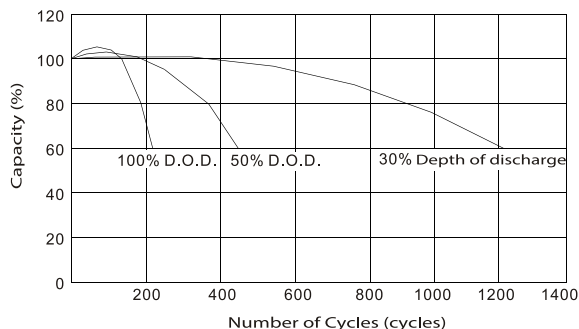
Volts/cell	15min	30min	45min	1h	5h	10h	20h
1.80V	343.6	227.4	172.4	136.8	44.2	26.7	13.9
1.75V	370.7	234.2	177.2	142.4	45.2	26.9	14.0
1.70V	390.3	242.4	183.6	146.5	46.3	27.2	14.3
1.65V	411.8	253.6	186.5	150.3	47.4	27.7	14.4
1.60V	433.1	265.8	193.3	154.8	48.8	27.9	14.5

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

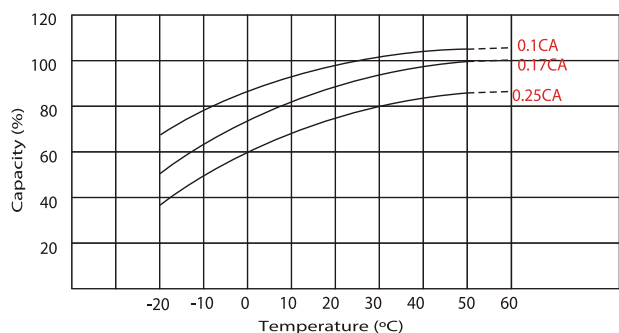
Charging Characteristic (float use)



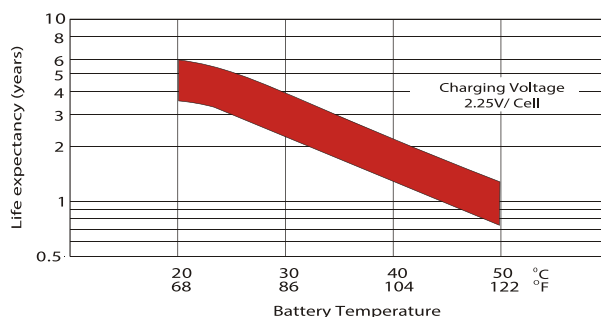
Cycle Life in Relation to Depth of Discharge



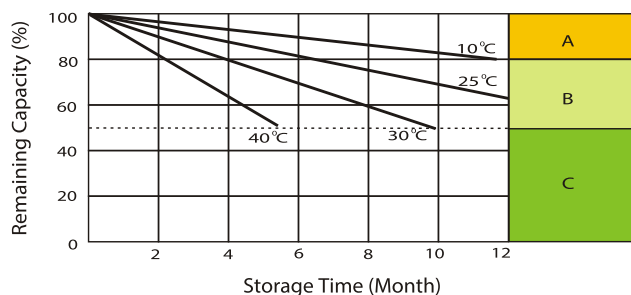
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Terme Float Life



Self Discharge Characteristics



- A** With switch regulator (two-step controller) charge on curve max. charge voltage for max. 2 hrs/ day then switch over to continous charge.
- B** Standard charge without switching.
- C** Boost charge (Equalizing charge with external generator) charge on curve continous charge for max. 5 hrs/month, then switch over to curve Standard charge.

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

