

# KBL12550 12V 55Ah



The KAISE LONG LIFE Series 10 years has been designed for different applications, such as UPS, electric and telecommunications applications that require a long useful life.



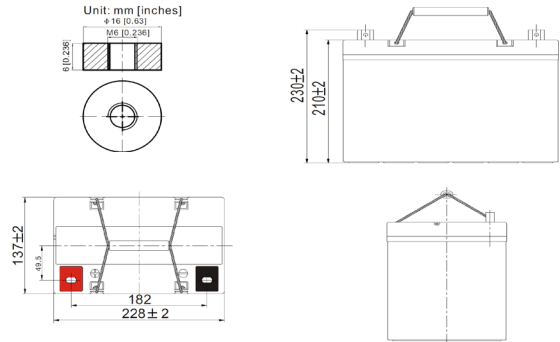
## Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	228 / 8.98
	Width (mm / inch)	137 / 5.39
	Height (mm / inch)	210 / 8.27
	Total Height (mm / inch)	230 / 9.06
Approx. Weight (Kg / lbs)	17.7 / 39.0	
Design Life	10 years	
Terminal	M6	
Container Material	ABS	
Rated Capacity	58.8Ah / 2.94A	(10hr, 1.80V / cell, 25°C / 77°F)
	55.0Ah / 5.50A	(10hr, 1.80V / cell, 25°C / 77°F)
	47.9Ah / 9.57A	(5hr, 1.75V / cell, 25°C / 77°F)
	34.1Ah / 34.1A	(1hr, 1.60V / cell, 25°C / 77°F)
Max. Discharge Current	660A (5s)	
Internal Resistance	Approx 7.5mΩ	
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 16.5A.	
	Voltage: 14.4VPC ~ 15.0VPC at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	No Limit on Initial Charging Current Voltage	
	13.5VPC ~ 13.8VPC 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 Long Life 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	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	73.6	60.8	43.3	27.8	13.8	9.35	5.50	2.94
1.75V	83.6	68.5	47.0	30.3	14.3	9.57	5.65	3.02
1.70V	94.5	76.0	51.3	32.0	15.1	10.1	5.86	3.09
1.65V	101.4	81.4	54.1	33.1	15.7	10.4	6.03	3.19
1.60V	111.6	89.1	57.8	34.1	16.1	10.7	6.16	3.24

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



## Applications

- UPS
- Telecommunications equipment
- Solar energy systems
- Cable TV
- Power station
- Marine equipment
- Military equipment
- Emergency power systems
- Railway systems

## Certifications

ISO 9001:2008 ISO 14001:2008



## Discharge Current vs. Discharge Voltage

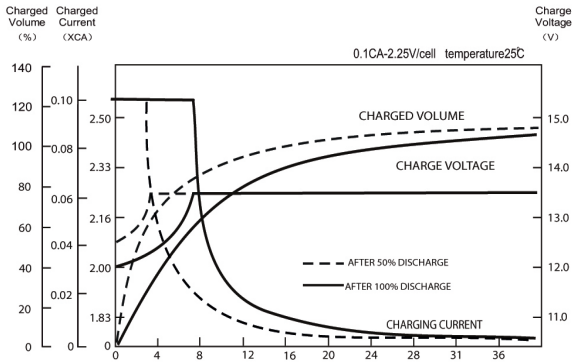
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

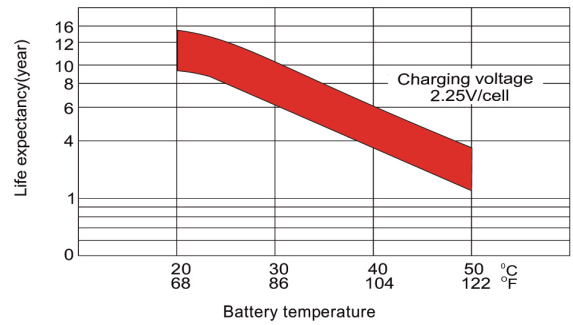
Volts/cell	10min	15min	30min	1h	3h	5h	10h	20h
1.80V	135.9	113.1	82.0	53.8	26.9	18.4	11.0	5.88
1.75V	151.9	125.9	88.4	58.4	27.9	18.8	11.3	6.02
1.70V	167.7	137.8	96.0	61.6	29.3	19.9	11.7	6.17
1.65V	178.5	146.4	100.5	63.2	30.4	20.4	12.0	6.35
1.60V	191.9	157.7	106.5	64.8	31.0	20.8	12.2	6.45

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

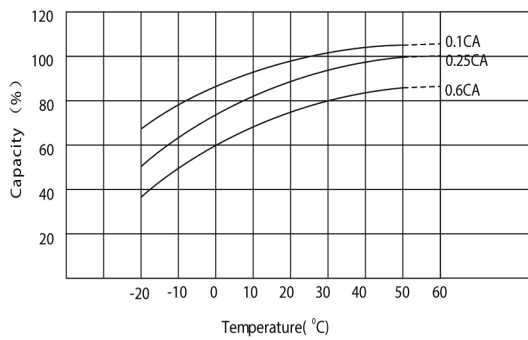
## Charging Characteristics (float use)



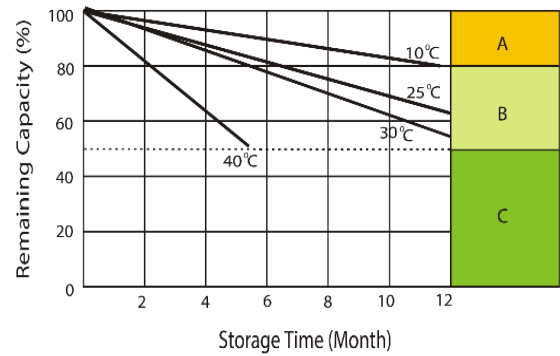
## Effect of Temperature on Long Term Float Life



## Temperature Effects in Relation to Battery Capacity



## 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 continuous charge.
- B** Standard charge without switching.
- C** Boost charge (Equalizing charge with external generator) charge on curve continuous 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.