

# KBL12330 12V 33Ah



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.



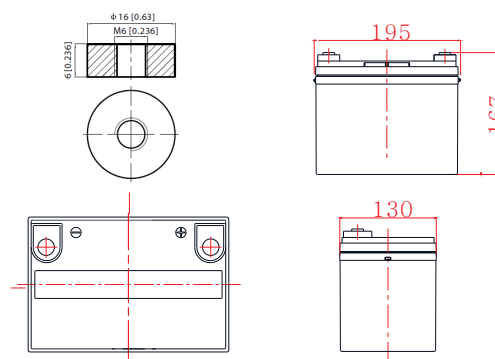
## Performance Characteristics

Nominal Voltage	12V	
Dimensions	Length (mm / inch)	195 / 7.68
	Width (mm / inch)	130 / 5.12
	Height (mm / inch)	167 / 6.57
	Total Height (mm / inch)	167 / 6.57
Approx. Weight	(Kg / lbs) 10.0 / 22.0	
Design Life	10 years	
Terminal	M6	
Container Material	ABS	
Rated Capacity	33.0Ah / 3.30A	(10hr, 1.80V/cell, 25°C / 77°F)
	30.1Ah / 6.02A	(5hr, 1.75V/cell, 25°C / 77°F)
	22.2Ah / 22.2A	(1hr, 1.60V/cell, 25°C / 77°F)
Max. Discharge Current	396A (5s)	
Internal Resistance	Approx 13.0mΩ	
Operating Temp. Range	Discharge : -20 ~ 50°C (-4 ~ 122°F)	
	Charge : -20 ~ 50°C (-4 ~ 122°F)	
	Storage : -20 ~ 50°C (-4 ~ 122°F)	
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial Charging Current less than 8.3A	
	Voltage: 14.4V ~ 15.0V at 25°C (77°F)	
	Temp. Coefficient: -30mV/°C	
Standby Use	Initial Charging Current less than 8.3A	
	Voltage: 13.5V ~ 13.8V 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 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 25°C (77°F)

Volts/cell	5min	15min	30min	1h	3h	5h	10h
1.80V	89.2	53.5	34.8	21.1	8.86	5.85	3.30
1.75V	100	57.3	36.4	21.6	8.93	6.02	3.33
1.70V	108	59.3	36.7	21.9	9.02	6.08	3.37
1.65V	113	60.6	37.4	22.1	9.15	6.14	3.40
1.60V	116	62.5	38.0	22.2	9.25	6.21	3.43

## 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

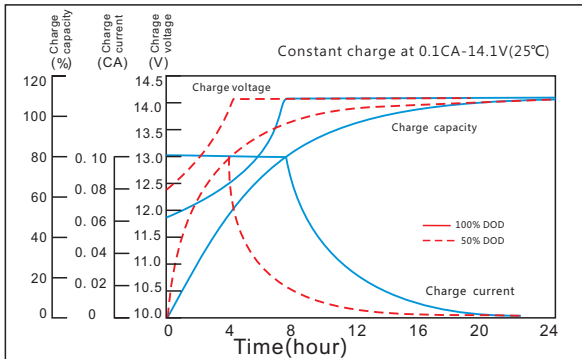
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

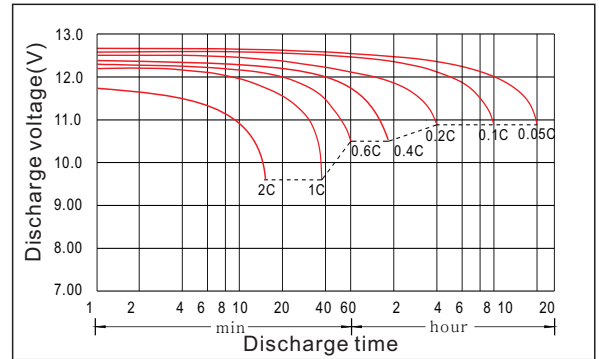
Volts/cell	5min	15min	30min	1h	2h	3h	5h	10h
1.80V	160	100	66.2	40.7	23.7	17.1	11.4	6.34
1.75V	174	106	67.8	41.0	23.8	17.2	11.5	6.40
1.70V	187	107	68.1	41.4	23.9	17.3	11.6	6.47
1.65V	188	108	68.1	41.7	24.0	17.4	11.7	6.53
1.60V	195	110	68.8	42.0	24.1	17.6	11.8	6.60

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

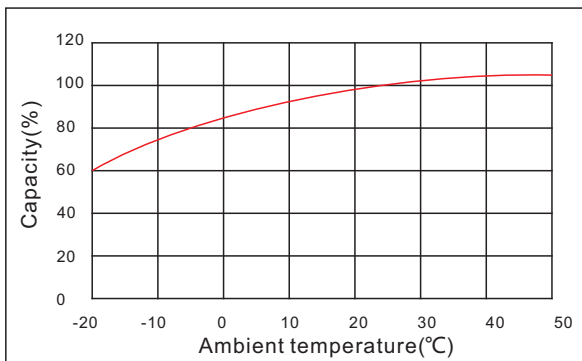
## Charging Characteristics (float use)



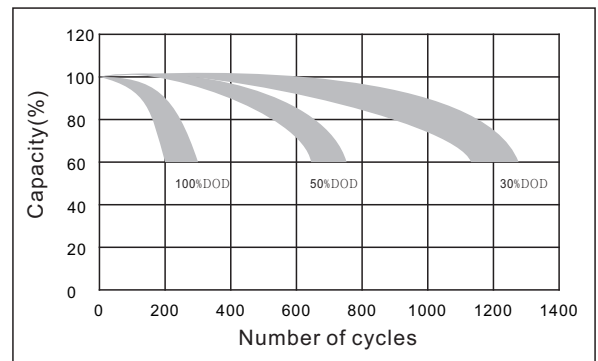
## Discharge Characteristics



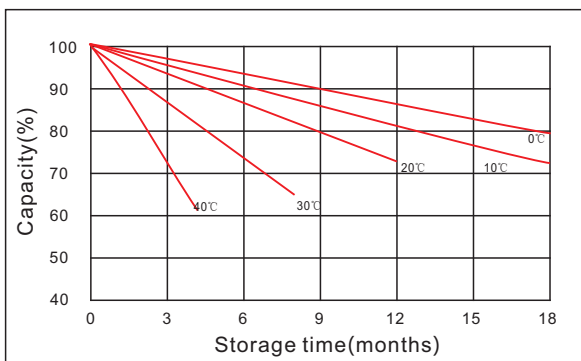
## Temperature Effects in Relation to Battery Capacity



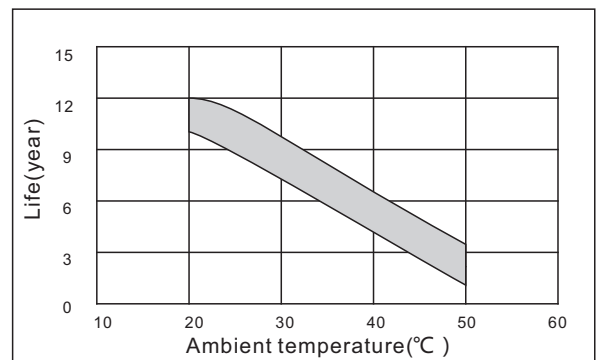
## Cycle Life in Relation to Depth of Discharge



## Curves of Self-Discharge



## Effect of Temperature on Long Term Float Life



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

