

KBC12330 12V 33Ah



The Kaise cyclic batteries were developed for deep discharges with very heavy non-porous battery plates to withstand major discharging and charging cycles (deep cycle). These batteries use different chemistry combinations for the plates with active paste material and a slightly stronger than normal electrolyte, which allows for a much longer life in deep cycle applications.



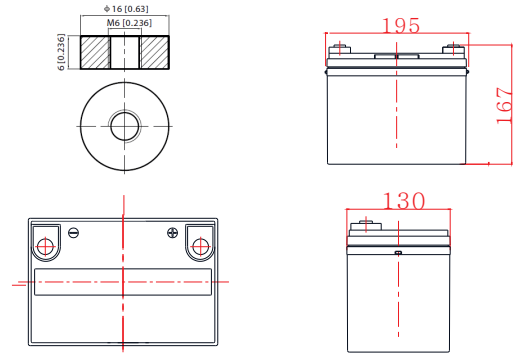
Performance Characteristics

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	12 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)
	21.9Ah / 21.9A	(1hr, 1.70V / 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)	
Cycle Use	Initial Charging Current less than 8.3A	
	Voltage: 14.4V~ 215.0V 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 Deep Cycle 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.	

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

Volts/cell	5min	15min	30min	1h	3h	5h	10h	20h
1.80V	89.2	53.5	34.8	21.1	8.86	5.85	3.30	1.77
1.75V	100	57.3	36.4	21.6	8.93	6.02	3.33	1.78
1.70V	108	59.3	36.7	21.9	9.02	6.08	3.37	1.78
1.65V	113	60.6	37.4	22.1	9.15	6.14	3.40	1.79
1.60V	116	62.5	38.0	22.2	9.25	6.21	3.43	1.80

Dimensions and Terminal (Unit: mm (inches))



Applications

- Solar power systems
- Electric wheel chairs
- Golf carts
- Maritime equipment
- Power plants
- Railway systems
- Telecommunications systems
- Cable TV systems
- Emergency power systems

Certifications

ISO 9001:2008 ISO 14001:2008



Discharge Current vs. Discharge Voltage

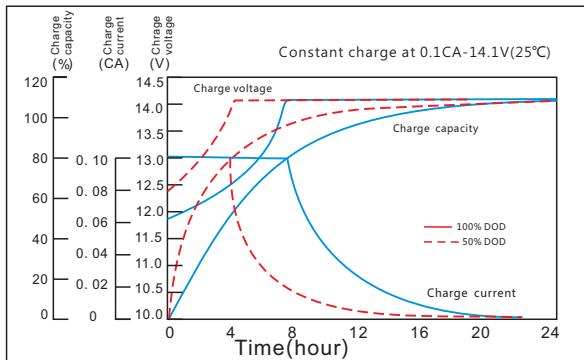
Final discharge voltage V/CELL	1.8	1.75	1.7	1.6
Discharge current (A)	$I \leq 0.1CA$	$0.25CA \geq I > 0.1CA$	$0.55CA \geq I > 0.25CA$	$I > 0.55CA$

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

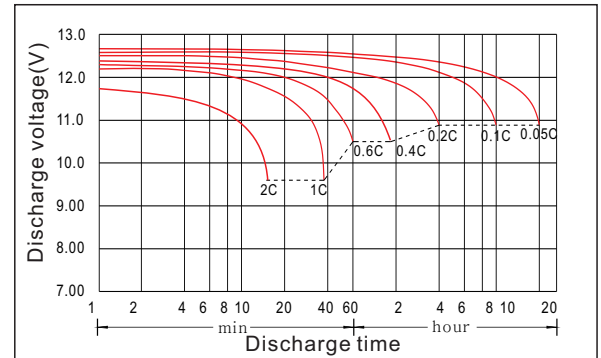
Volts/cell	5min	15min	30min	1h	2h	3h	5h
1.80V	160	100	66.2	40.7	23.7	17.1	11.0
1.75V	174	106	67.8	41.0	23.8	17.2	11.2
1.70V	187	107	68.1	41.4	23.9	17.3	11.6
1.65V	188	108	68.1	41.7	24.0	17.4	11.7
1.60V	195	110	68.8	42.0	24.1	17.6	11.8

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

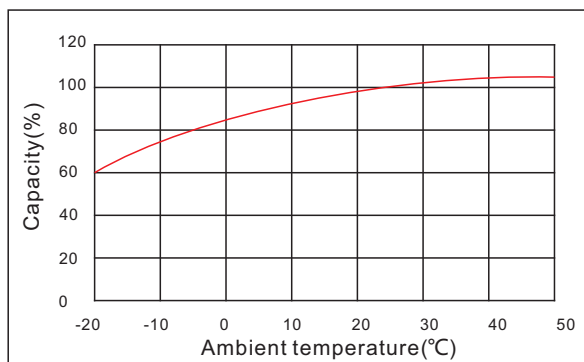
Charging Characteristics (standby use)



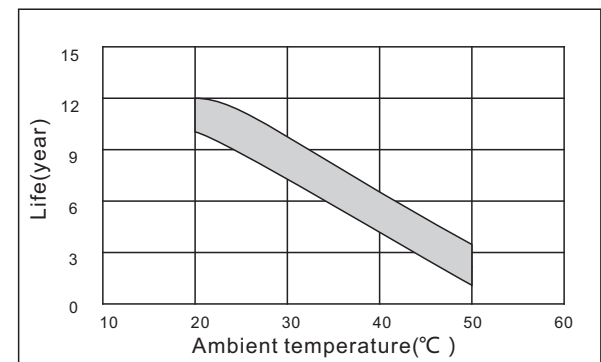
Self Discharge Characteristics



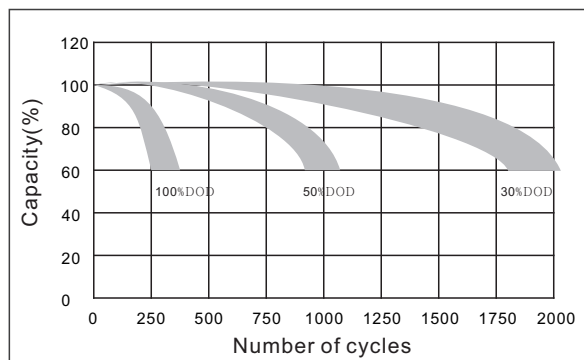
Temperature Effects in Relation to Battery Capacity



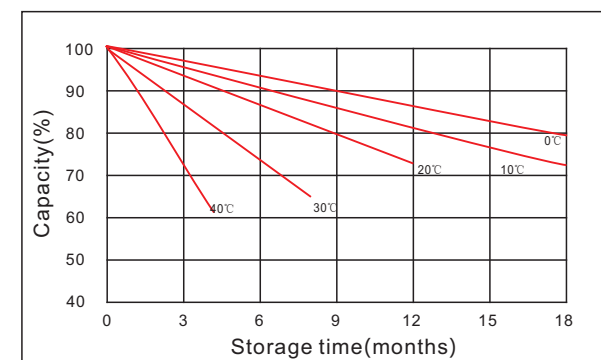
Temperature Effects on Float Life



Cycle Life in Relation to Depth of Discharge



Curves of self-discharge



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

