



## KBL12330 12V 33Ah(10hr)- LONG LIFE

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.



### Battery Construction

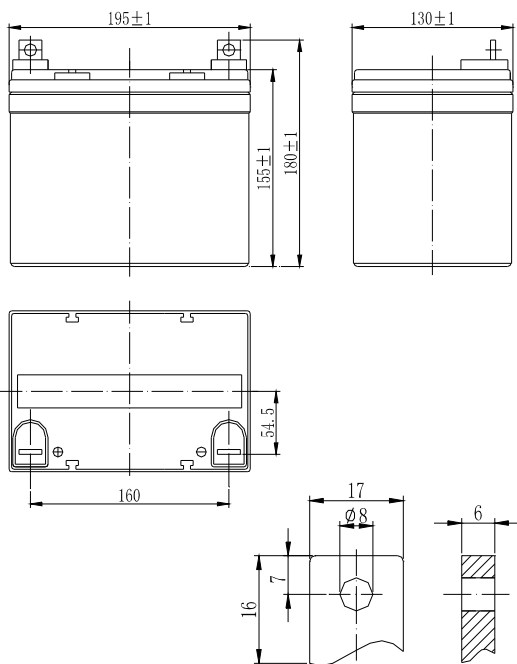
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Pb	Fiberglass	Sulfuric acid

### General Features

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

### Dimensions and Weight

Length(mm / inch)	195 / 7.68
Width(mm / inch)	130 / 5.12
Height(mm / inch)	155 / 6.10
Total Height(mm / inch)	180 / 7.09
Approx. Weight(Kg / lbs)	11.0 / 24.3



### Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	10 years
Nominal Capacity 77°F(25°C)	
10 hour rate (3.30A, 10.8V)	33.0Ah
5 hour rate (5.58A, 10.5V)	27.9Ah
1 hour rate (22.3A, 9.6V)	22.3Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	10mOhms
Self-Discharge	
3% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	330A(5s)
Short Circuit Current	850A
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.30-2.35VPC
Maximum charging current	9.9A
Temperature compensation	-30mV/°C
Standby use	2.23-2.27VPC
Temperature compensation	-20mV/°C

### Discharge Constant Current (Amperes at 77°F25°C)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	115	80.2	61.5	37.0	26.9	22.3	9.08	6.30	3.36
1.65V	106	77.3	59.4	36.3	26.0	21.9	8.97	6.25	3.35
1.70V	99.0	73.0	54.5	33.2	25.2	21.2	8.45	6.15	3.32
1.75V	87.8	69.0	52.0	32.8	24.5	20.3	8.25	5.58	3.31
1.80V	79.5	60.0	49.5	31.9	23.8	19.8	8.18	5.50	3.30

### Discharge Constant Power (Watts at 77°F25°C)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	215	150	117	72.4	53.8	40.9	23.3	17.4	12.2
1.65V	207	145	110	69.3	53.2	40.5	23.1	17.3	11.9
1.70V	185	136	107	64.5	51.2	39.9	22.6	16.8	11.5
1.75V	170	132	103	62.7	49.1	39.1	21.8	16.0	11.3
1.80V	155	116	97.9	61.0	48.8	38.3	21.0	15.2	11.0

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

