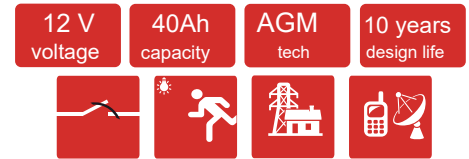


# KBL12400 12V 40Ah



Kaise Battery series are Top terminal VRLA AGM battery for General use. With advanced manufacturing technique and industry scale, KBL series delivers high energy density and high reliability performance, highly suited for UPS systems, security and alarm systems, telecommunication, utilities, emergency light systems, CATV and other backup applications.



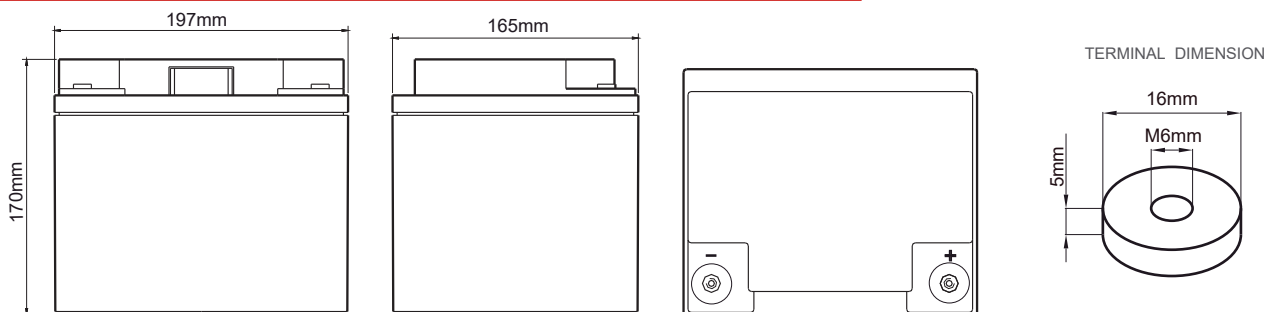
## Complied standards

- IEC 60896-21/22
- GB/T19638
- JIS C8704
- BS6290 part 4

## Technical Specifications

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (25°C)	10 Years
Nominal Capacity (25°C)	40 Ah @ 20HR-rate (to 1.80Vpc)
Dimension (mm)	L196 x W165 x H170 x TH170
Approx. Weight	12.8 kg (28.2 lbs)
Terminal Type	Female Copper Insert M6 (torque 6~8N.m)
Internal Resistance	Approx. 0.0095 Ohm (fully charged @ 20°C)
Max. Charge Current	9.5A
Max. Discharge Current (5S)	400A
Short Circuit Current	1250A
Self Discharge	Approx. 3% per month @ 25°C
Ambient Temperature	Discharge: -20~55°C Charge: -20~50°C Storage: -20~45°C
Float Charge Voltage	13.6V/block @25°C (-3mV/cell/ C)
Equalize and cycle Use Charge Voltage	14.4V/block @25°C
Container Material	ABS (UL94-V0 optional)

## Battery Dimensions



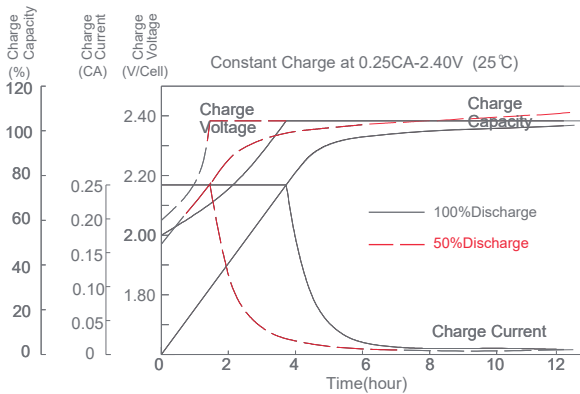
## Constant Current Discharge Characteristics: Amps (25°C)

F.V/Time	5min	10min	15min	30min	1h	3h	4h	5h	10h	20h
1.60 V	117.6	86.7	71.6	44.1	26.5	11.1	8.86	7.38	4.20	2.23
1.67 V	104.9	80.0	67.5	42.1	25.8	11.0	8.74	7.27	4.17	2.18
1.70 V	93.7	72.6	63.8	40.6	25.2	10.9	8.65	7.22	4.13	2.13
1.75 V	81.4	67.5	59.2	39.2	24.7	10.7	8.56	7.12	4.07	2.10
1.80 V	72.0	61.3	55.3	37.4	23.9	10.5	8.35	6.96	4.00	2.05
1.85 V	61.6	55.3	50.4	35.4	22.8	10.1	8.11	6.79	3.90	2.00

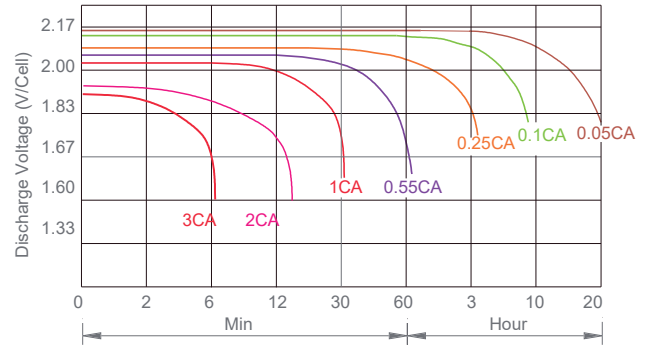
## Constant Power Discharge Characteristics: W/Cell (25°C)

F.V/Time	5min	10min	15min	30min	1h	3h	4h	5h	10h	20h
1.60 V	207	156	130	81.5	49.4	21.0	16.8	14.0	8.03	4.34
1.67 V	187	145	124	78.4	48.4	20.9	16.7	14.0	7.98	4.27
1.70 V	170	133	119	76.0	47.6	20.8	16.7	13.9	7.93	4.21
1.75 V	149	125	111	74.0	46.9	20.6	16.6	13.9	7.88	4.16
1.80 V	133	116	105	71.4	45.9	20.4	16.4	13.6	7.79	4.11
1.85 V	116	105	96.1	68.1	44.3	19.9	16.0	13.4	7.63	4.04

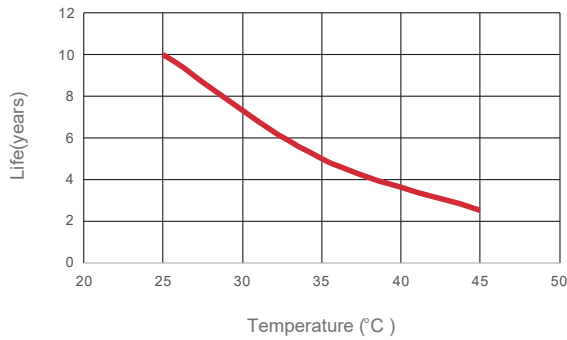
## Charge Characteristic



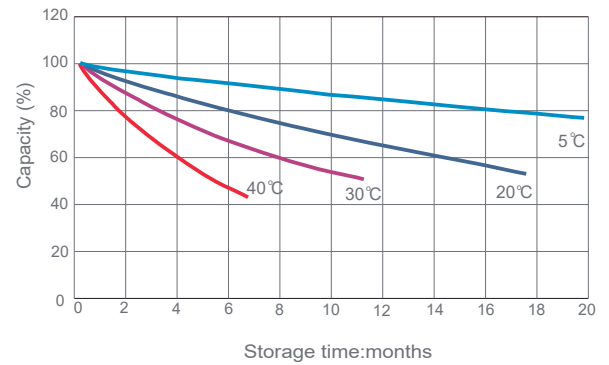
## Discharge Characteristic (25°C)



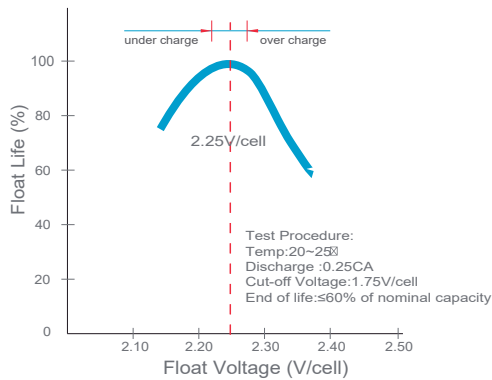
## Temperature vs Float Life



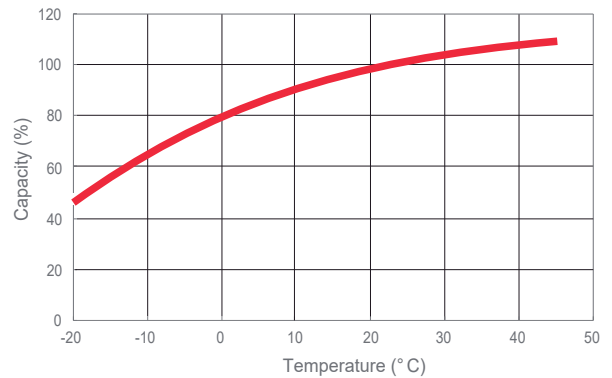
## Self discharge characteristics



## Float voltage vs Float life



## Capacity vs Temperature



## Final voltage settings recommended according to the discharge current

Discharge Current I (A)	$I \leq 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$I \geq 1.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$

