

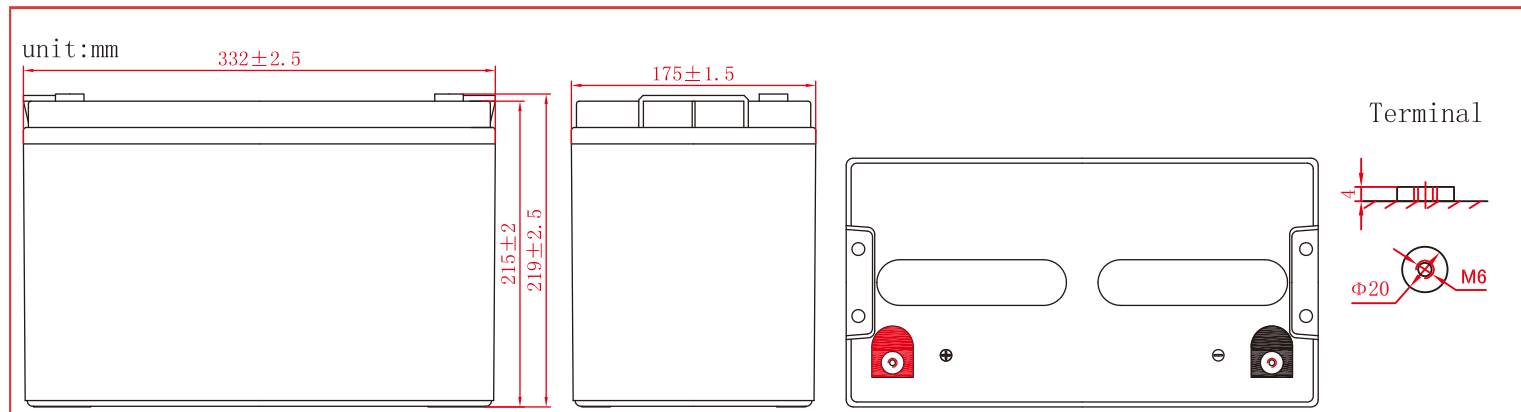
BAT-KP12-100 is a battery using Deep cycle gel Technology, long life (10 year / 600 cycle design at 50% DOD). They are suitable for standby and energy storage applications. Front terminals make the installation, maintenance and supervision easy. The batteries are rechargeable, highly efficient, leak proof and maintenance free.

► Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah @ 10hr-rate to 1.8V per cell @25°C (77°F)
Weight	Approx. 29 kg(64.68 lbs)
Maximum Discharge Current	1200A (5sec)
Internal Resistance	Approx. 5.5 mΩ
Operating Temperature Range	Discharge: -15°C~50°C (5°F~122°F) Charge: -15°C~40°C (5°F~104°F) Storage: -15°C~40°C (5°F~104°F)
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Recommended Maximum Charging Current Limit	30A
Equalization and Cycle Service	14.4 to 14.8 VDC/unit Average at 25°C (77°F)
Self Discharge	Batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
Terminal	Thread lead alloy recessed terminal to accept M6 bolt
Container Material	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.



► Dimensions : Unit: mm	Overall Height (H)	Container height (h)	Length (L)	Width (W)
	219±2.5	215±2.5	332±2.5	175±1.5



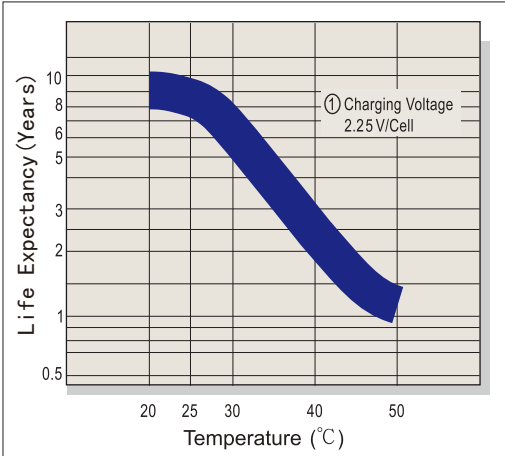
Constant Current Discharge Characteristics Unit:A (25°C, 77°F)

F.V/Time	30min	45min	1h	3h	5h	8h	10h	20h
1.60V	105.5	77.6	61.3	26.9	18.1	12.4	10.25	5.47
1.67V	103.6	76.2	60.5	26.6	18.0	12.3	10.23	5.45
1.7V	102.1	75.3	59.7	26.4	17.9	12.3	10.22	5.43
1.75V	98.6	73.2	57.8	25.9	17.6	12.2	10.16	5.38
1.8V	94.0	70.7	55.4	25.0	17.2	12.0	10.00	5.30
1.85V	87.9	67.1	51.4	23.0	15.9	11.4	9.61	5.13

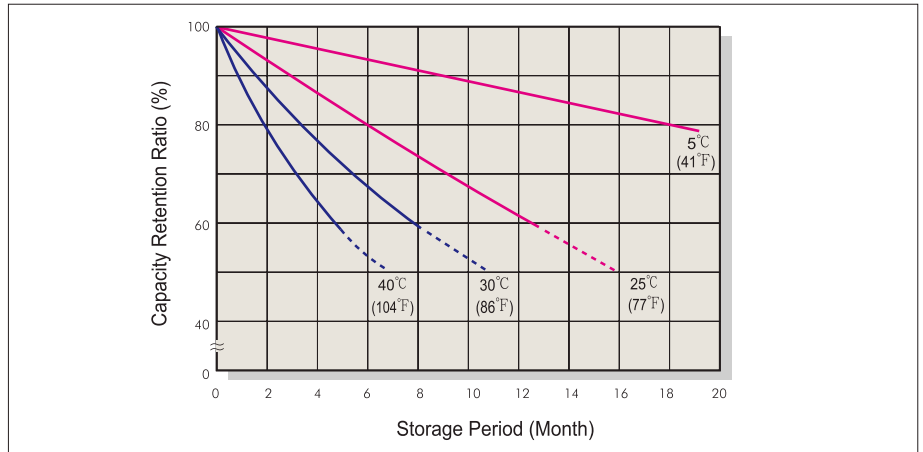
Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

F.V/Time	30min	45min	1h	3h	5h	8h	10h	20h
1.60V	174.2	130.0	104.3	50.4	35.4	24.1	20.17	10.76
1.67V	169.5	126.5	103.0	49.9	35.3	24.0	20.13	10.70
1.7V	164.4	123.8	102.1	49.5	35.2	24.0	20.08	10.67
1.75V	155.3	117.6	99.6	48.6	34.7	23.8	19.91	10.57
1.8V	143.8	109.8	97.0	46.8	33.8	23.4	19.60	10.44
1.85V	128.5	98.9	91.4	43.5	31.7	22.6	19.00	10.14

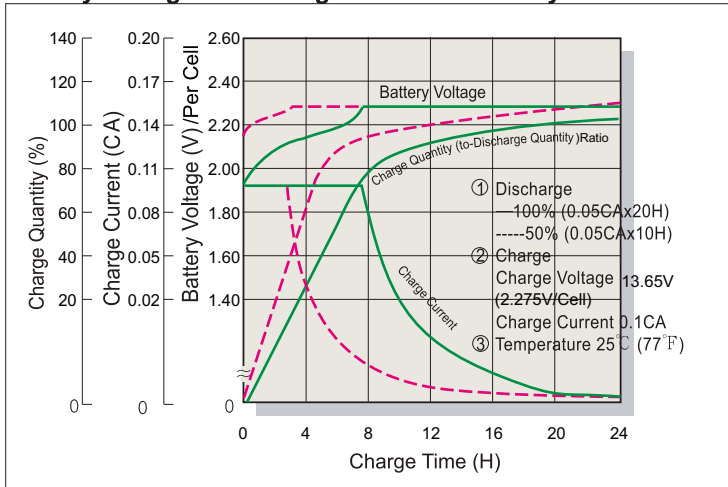
Trickle(or Float)Design Life



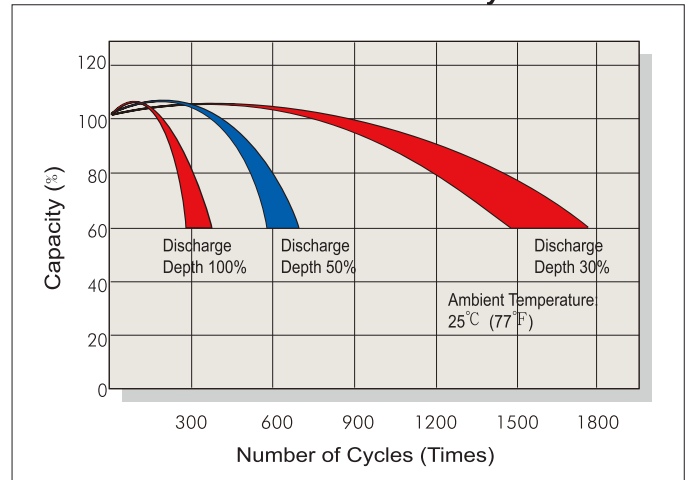
Capacity Retention Characteristic



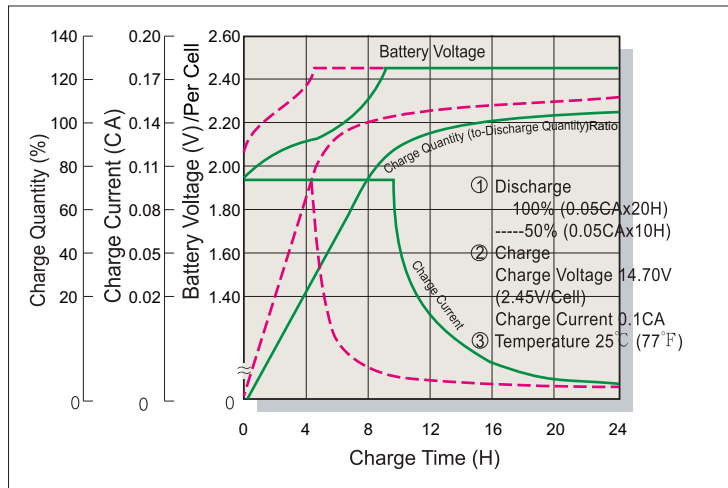
Battery Voltage and Charge Time for Standby Use



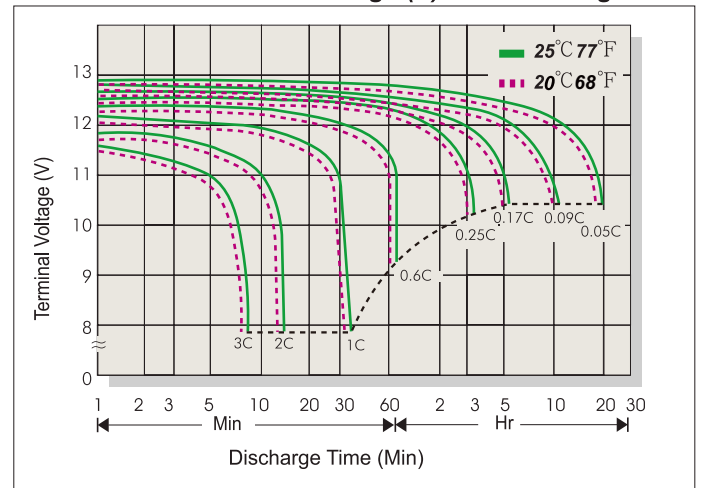
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



Charging Procedures

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.45	2.40~2.50	0.25C
Standby	25°C(77°F)	2.275	2.25~2.30	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.65	1.60
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

Effect of temperature on capacity (20HR) Self-discharge Characteristics

Temperature	Dependency of Capacity (20HR)
40°C	102%
25°C	100%
0°C	85%
-15°C	65%

Charge Voltage(V/Cell)	Charge Voltage(V/Cell)
3 Months	91%
6 Months	82%
12 Months	64%