



# 6FM100 ▶ 12V-100Ah

6FM100 is a general purpose battery up to 10 years in standby service or more than 260 cycles at 100% discharge in cycle service. As with all Baykee batteries, all are rechargeable, highly efficient, leak proof and maintenance free.



## ► Specification

<b>Cells per Unit</b>	6
<b>Voltage per Unit</b>	12
<b>Capacity</b>	100Ah @ 10hr-rate to 1.75V per cell @25°C (77°F)
<b>Weight</b>	Approx. 29.4 kg (64.68 lbs)
<b>Maximum Discharge Current</b>	1000A (5sec)
<b>Internal Resistance</b>	Approx. 5.2mΩ
<b>Operating Temperature Range</b>	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)
<b>Nominal Operating Temperature Range</b>	25°C±3°C (77°F±5°F)
<b>Float Charging Voltage</b>	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
<b>Recommended Maximum Charging Current Limit</b>	25 A
<b>Equalization and Cycle Service</b>	14.4 to 14.8 VDC/unit Average at 25°C (77°F)
<b>Self Discharge</b>	Baykee 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.
<b>Terminal</b>	Thread lead alloy recessed terminal to accept M6 bolt
<b>Container Material</b>	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.



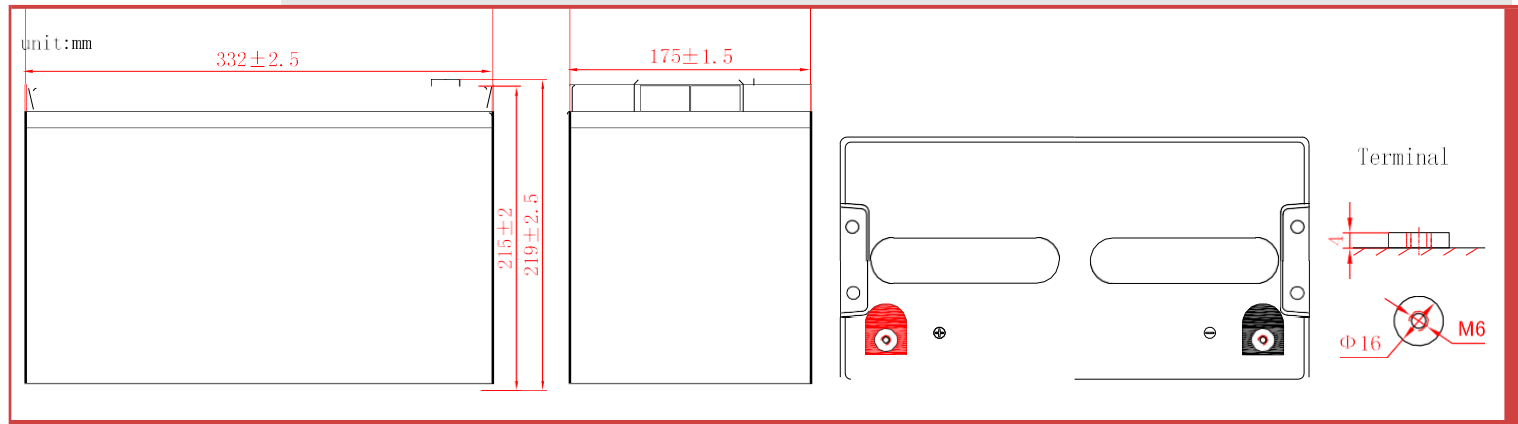
CTK20141211018



Baykee-manufactured VRLA(Absorbent Glass Mat type) batteries are UL-recognized components under UL1989.

Baykee is also certified by ISO 9001 and ISO 14001.

Dimensions :	Overall Height (H)	Container height (h)	Length (L)	Width (W)
Unit: mm	219±2.5	215±2	332±2.5	175±1.5



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

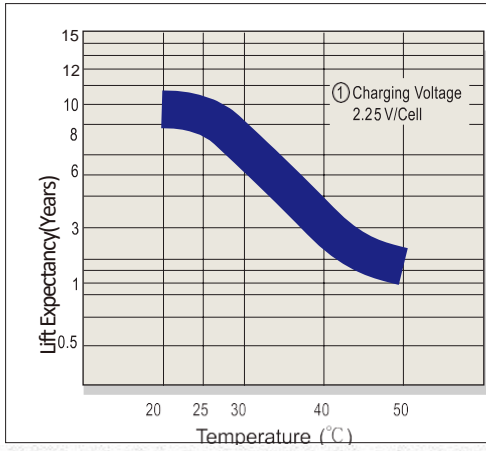
F.V/Time	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	225	169	105.3	63.6	27.8	18.01	10.18	5.46
1.67V	218	165	103.3	62.8	27.6	17.88	10.14	5.44
1.7V	210	160	101.0	61.8	27.4	17.72	10.09	5.42
1.75V	200	153	98.0	60.1	26.9	17.42	10.00	5.38
1.8V	184	142	93.6	57.5	25.9	16.90	9.82	5.28
1.85V	159	124	87.8	53.2	23.8	15.74	9.52	5.12

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

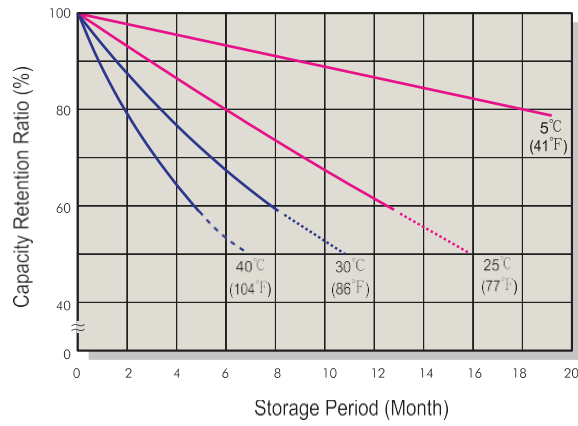
F.V/Time	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	432	348	203.5	120.9	54.9	35.1	20.02	10.82
1.67V	410	330	200.0	119.4	54.4	35.0	19.92	10.80
1.7V	383	309	196.1	117.8	53.9	34.8	19.79	10.77
1.75V	349	282	190.6	115.5	52.9	34.3	19.58	10.69
1.8V	307	250	182.4	111.7	50.9	33.3	19.23	10.48
1.85V	255	210	170.9	105.8	47.4	31.3	18.66	10.13

Ratings presented herein are subject to revision without notice.

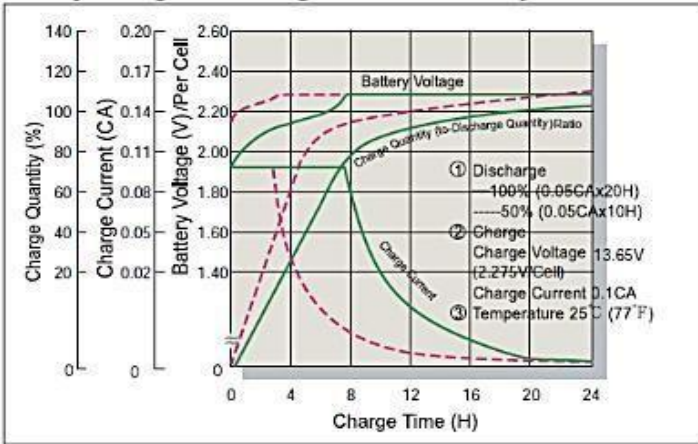
**Trickle(or Float)Design Life**



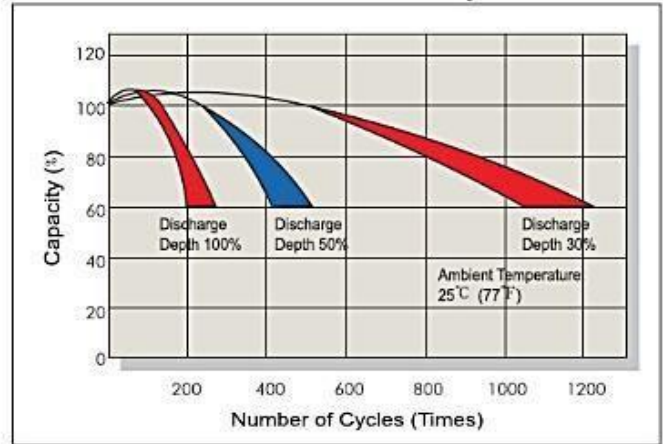
**Capacity Retention Characteristic**



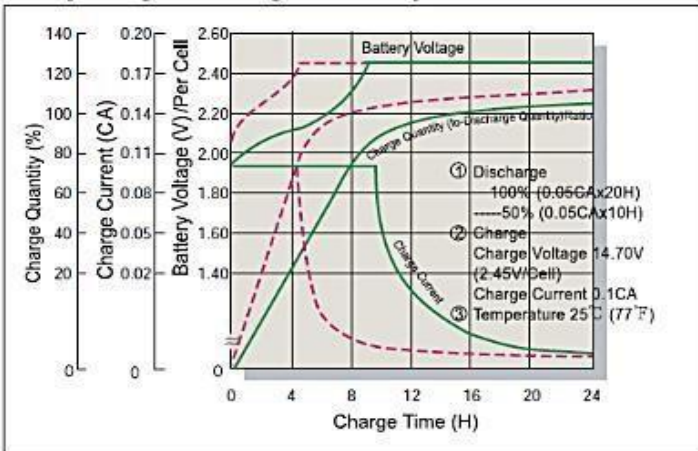
**Battery Voltage and Charge Time for Standby Use**



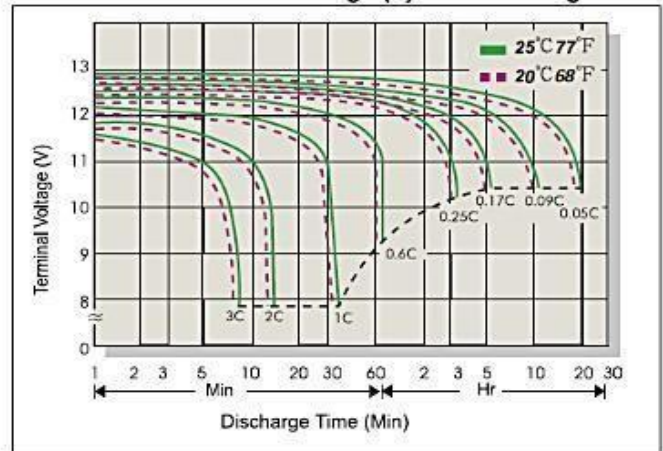
**Cycle Service Life**



**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(77°F)	2.45	2.40~2.50	0.25C
Standby	25(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 (10HR)**

Temperature	Dependency of Capacity (10HR)
40°C	102%
25°C	100%
0°C	85%
-15°C	65%

**Self-discharge Characteristics**

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