

MK12-27W 12V7Ah



introduce

MK12-27W is a high power valve-regulated sealed lead-acid battery. The most suitable for high-rate discharge requirements of the UPS, EPS and other emergency backup power equipment and uninterruptible power supply equipment. As with all Baace batteries, all are rechargeable, highly efficient, leak proof and maintenance free.

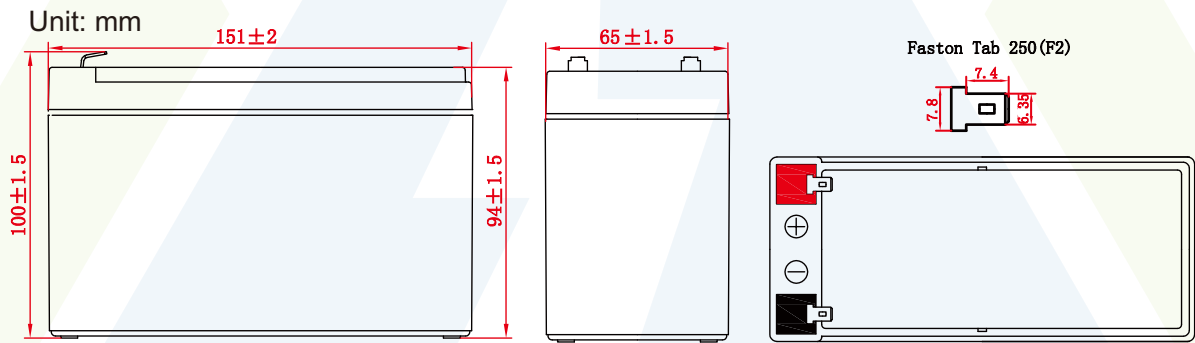


MK-manufactured VRLA (Absorbent Glass Mat type) batteries are UL-recognized components under UL2000.

Specification

CellsPerUnit	6
Voltage PerUnit	12
Capacity	27W@15min-rate to 1.67V per cell @25°C (77°F)
Weight	Approx.2.27 kg(5.00 lbs)
Maximum DischargeCurrent	97.5A(5sec)
InternalResistance	Approx. 22 mΩ
Operating TemperatureRange	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 TemperatureRange	25°C±3°C (77°F±5°F)
FloatChargingVoltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Recommended Maximum Charging CurrentLimit	2.1A
Equalization andCycleService	14.4 to 14.8 VDC/unit Average at 25°C (77°F)
SelfDischarge	Baace 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	F2-Faston Tab250
Container Material	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.

Dimensions :	Overall Height (H)	Container height (h)	Length (L)	Width (W)
Unit: mm	100±1.5	94±1.5	151±2	65±1.5



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

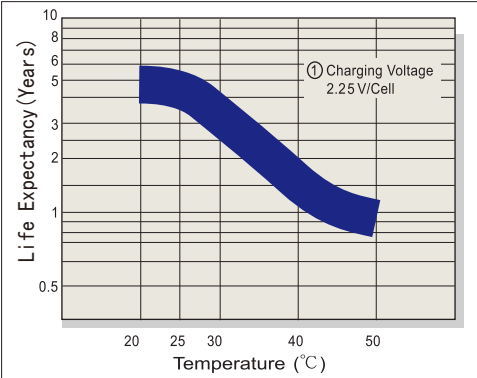
F.V/Time	2minr	3minr	5minr	10minr	15minr	20minr	30minr	45minr	60minr	90minr	120minr
1.60V	55.0	45.5	33.5	20.0	14.5	11.7	8.50	6.33	5.05	3.63	2.84
1.67V	49.5	41.8	31.8	19.5	14.1	11.4	8.30	6.22	4.97	3.61	2.82
1.70V	47.4	40.2	30.8	19.2	14.0	11.3	8.30	6.20	4.94	3.59	2.82
1.75V	42.7	36.8	28.9	18.4	13.7	11.1	8.20	6.12	4.90	3.56	2.79
1.80V	37.7	33.0	26.4	17.3	13.0	10.6	7.90	5.96	4.78	3.50	2.76
1.85V	32.2	28.7	23.5	15.8	12.0	9.90	7.50	5.67	4.57	3.36	2.65

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

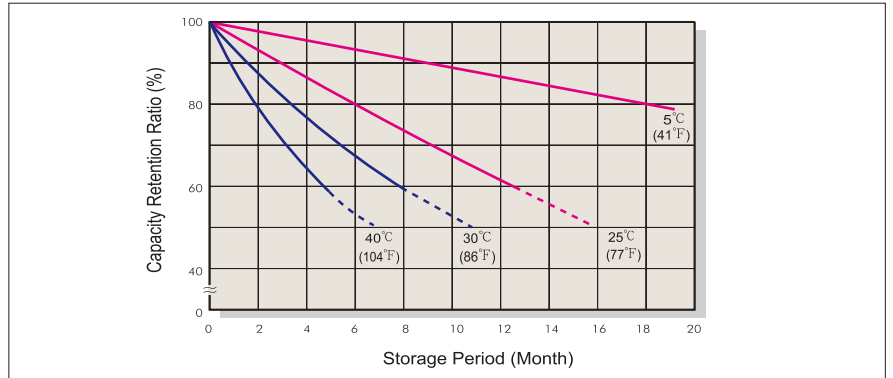
F.V/Time	2minr	3minr	5minr	10minr	15minr	20minr	30minr	45minr	60minr	90minr	120minr
1.60V	88.0	77.0	56.3	36.3	27.6	22.9	17.0	12.2	9.80	7.30	5.80
1.67V	80.7	71.8	53.9	35.4	27.1	22.5	16.8	12.0	9.66	7.26	5.77
1.70V	77.5	69.4	52.6	35.0	27.0	22.3	16.7	12.0	9.64	7.24	5.76
1.75V	71.3	64.7	50.0	33.9	26.4	22.1	16.5	11.9	9.57	7.20	5.73
1.80V	65.4	59.7	46.7	32.2	25.3	21.3	16.1	11.6	9.39	7.10	5.67
1.85V	57.1	52.8	42.1	29.8	23.6	20.1	15.3	11.2	9.04	6.86	5.50

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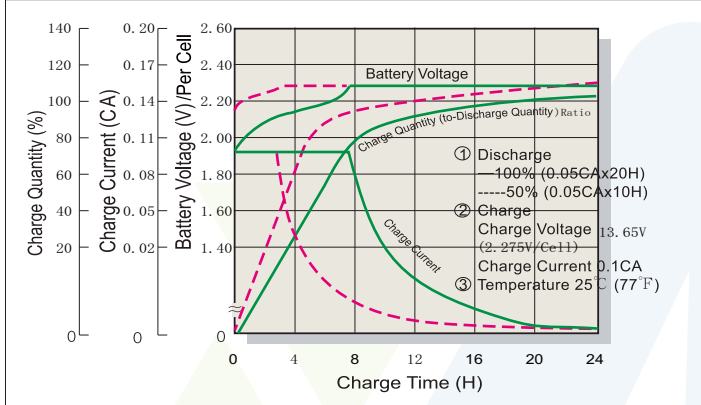
Trickle(or Float)Design Life



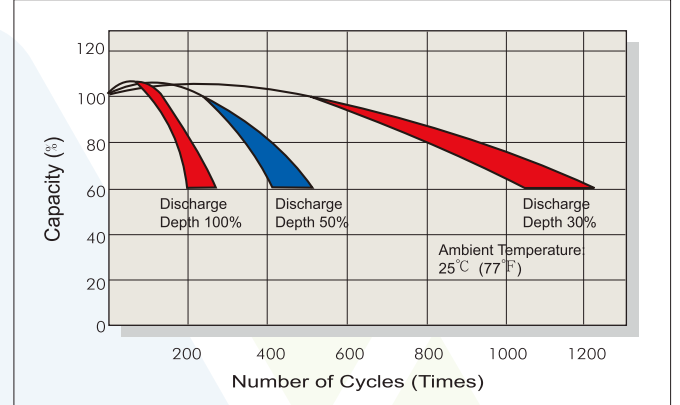
Capacity Retention Characteristic



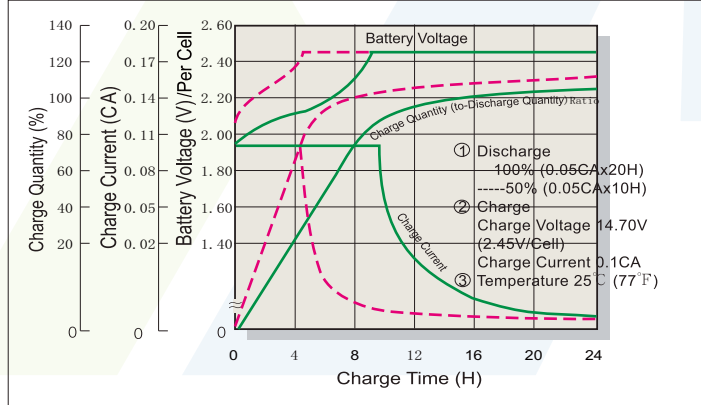
Battery Voltage and Charge Time for Standby Use



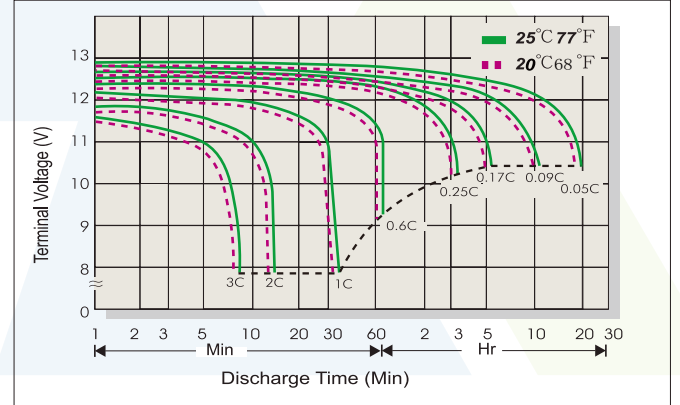
Cycle Service Life



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	0.30C
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)

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

Self-discharge Characteristics

Storage time	Preservation rate
3 Months	91%
6 Months	82%
12 Months	64%

