

MK12-165W 12V40Ah



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

introduce

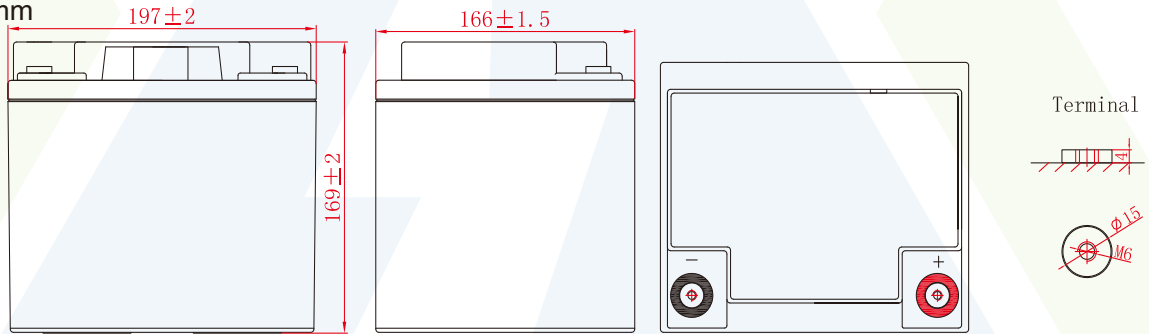
MK12-165W is a high power valve-regulated sealed lead-acid battery. The most suitable for high-rate discharge requirements of the UPS, EPS and other emergency backup power equipment and uninterruptible power supply equipment. As with all Baace batteries, all are rechargeable, highly efficient, leak proof and maintenance free.

Specification

CellsPerUnit	6
Voltage PerUnit	12
Capacity	165W@15min-rate to 1.67V per cell @25°C (77°F)
Weight	Approx. 13 kg(28.66 lbs)
Maximum Discharge Current	400A(5sec)
Internal Resistance	Approx. 8.5 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)
NominalOperatingTemperatureRange	25°C±3°C (77°F±5°F)
FloatCharging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Recommended Maximum Charging Current Limit	12A
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 temperature 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 :	Overall Height (H)	Container height (h)	Length(L)	Width (W)
Unit: mm	169±2	169±2	197±2	166±1.5

Unit: mm



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

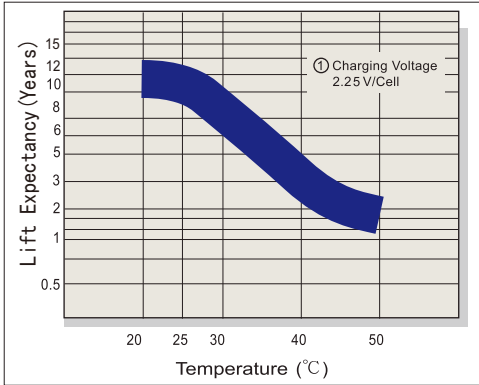
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN	120min
1.85V	101	90.2	78.5	66.9	56.1	42.6	26.0	19.1	16.9
1.80V	110	97.4	85.8	71.8	59.0	44.9	26.9	19.8	17.9
1.75V	118	104	92.5	76.1	61.6	46.8	27.6	20.3	18.5
1.70V	126	110	98.8	80.0	63.6	48.3	28.1	20.7	18.7
1.67V	132	114	103	82.7	66.1	49.7	28.9	21.3	19.0
1.60V	144	122	110	87.1	70.4	51.9	30.1	22.2	19.3

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

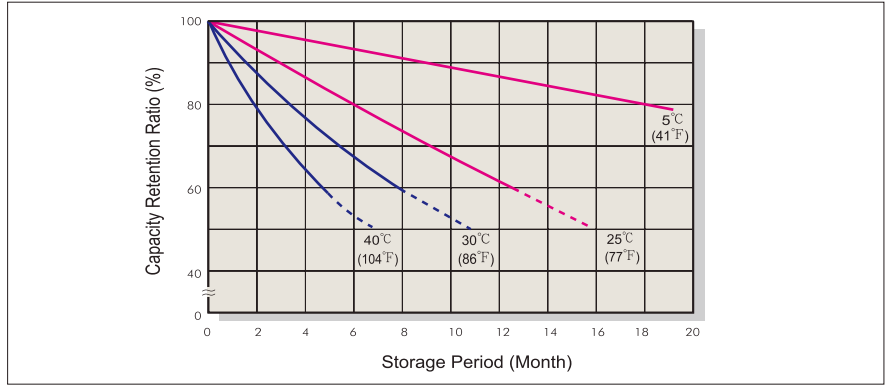
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN	120min
1.85V	196	176	156	125	111	86.0	52.2	38.3	35.6
1.80V	210	187	167	139	116	89.0	53.2	39.3	36.7
1.75V	223	196	177	152	120	91.6	54.3	40.0	37.4
1.70V	235	206	186	161	124	93.5	55.1	40.6	37.9
1.67V	242	211	191	165	126	94.4	55.6	41.0	38.0
1.60V	259	222	201	170	130	96.5	56.2	41.7	38.4

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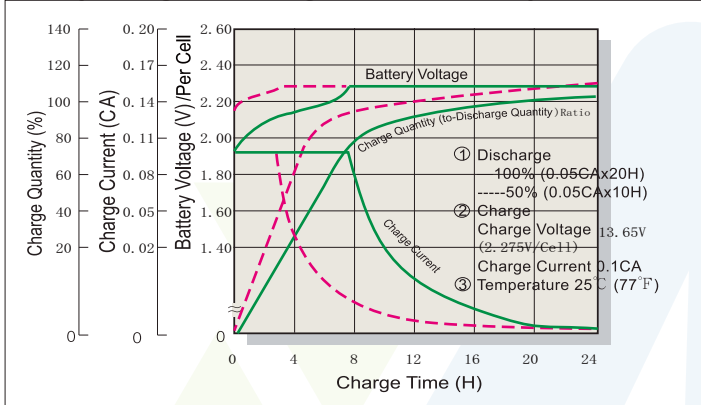
Trickle(or Float)Design Life



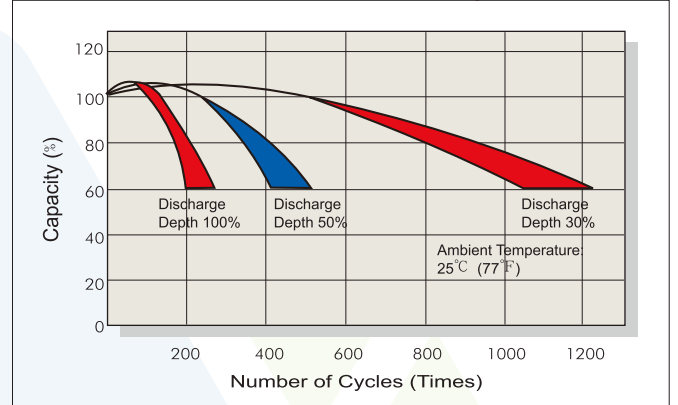
Capacity Retention Characteristic



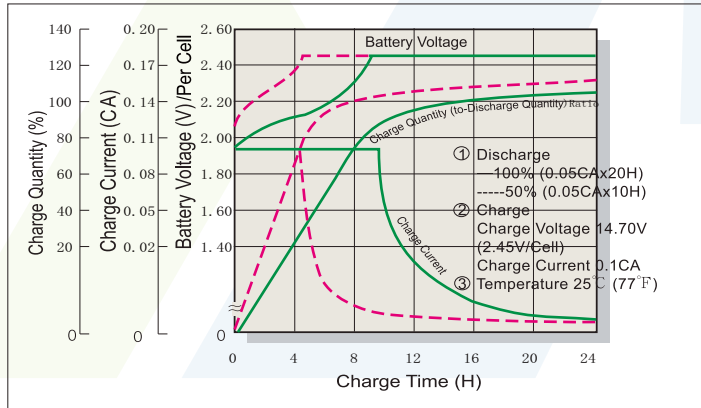
Battery Voltage and Charge Time for Standby Use



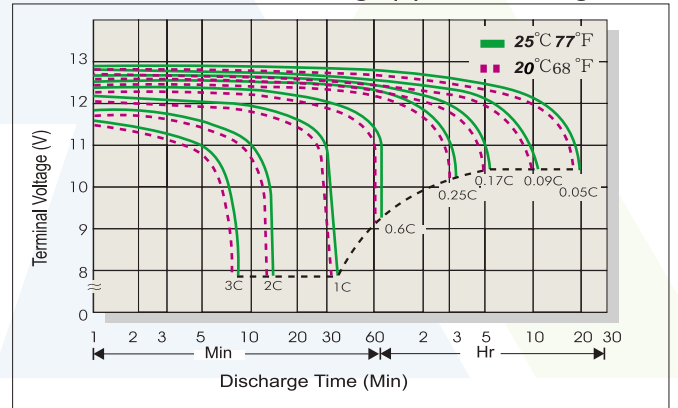
Cycle Service Life



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 (10HR)

Temperature	Dependency of Capacity (10HR)
40°C	103%
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%