



JM Series lead-acid battery JM12-90(B)

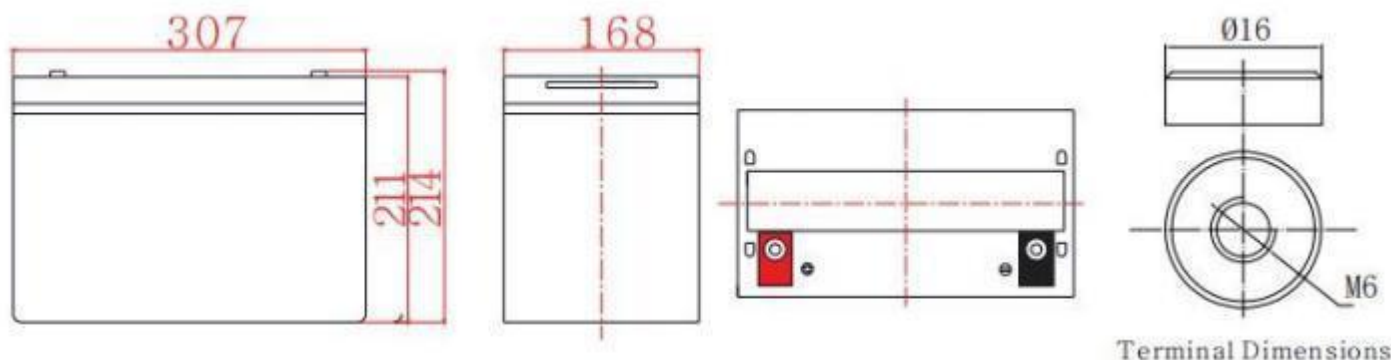
General Features

- ▶ High corrosion resistant performance: Pb-Ca multi-alloy grid
- ▶ High energy density and power density
- ▶ Optimized capability of instant high-current discharging
- ▶ Excellent charge acceptance ability
- ▶ Excellent deep cycle discharge capability
- ▶ Strong high and low temperature performance
- ▶ Precision sealing technology
- ▶ Long life



Dimension: 307(L) × 168(W) × 211(H) × 214(TH)

Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	90Ah@10hour-rate to 1.80V per cell @25°C
Design life	10 years
Terminal	M6
Approx. Weight	Approx 28.5kg ± 3% (62.83 ± 3% lbs)
Container Material	ABS (UL94-HB, UL94-V0 Optional)
short-circuit current	1846A
Internal resistance (Full charged at 25°C:)	6.5 mΩ
Self discharge	3% of capacity declined per month at 25°C

Operating Temperature

Discharge:	-20 ~ 50°C (-4 ~ 122°F)
Charge :	-20 ~ 50°C (-4 ~ 122°F)
Storage:	-20 ~ 50°C (-4 ~ 122°F)

Charge Method (25 °C)

Charge current:	Max. 22.5A; Recom. 9.0A
Float charge: 13.5-13.8V	recom. 13.8V (-18mV/°C)
Equalize charge: 13.8-14.1V	recom. 14.1V (-24mV/°C)
Cycle charge: 14.4-15.0V	recom. 14.7V (-30mV/°C)

Standards

Executive standard: IEC 60896-21/22, GB/T 19638.1-2014, YD/T 1360-2005

Applications

- ▶ UPS/EPS
- ▶ Power systems
- ▶ Telecommunications system
- ▶ Emergency lighting, Auto control system
- ▶ Solar/wind generating storage cyclic
- ▶ Other general purpose

Rated Capacity

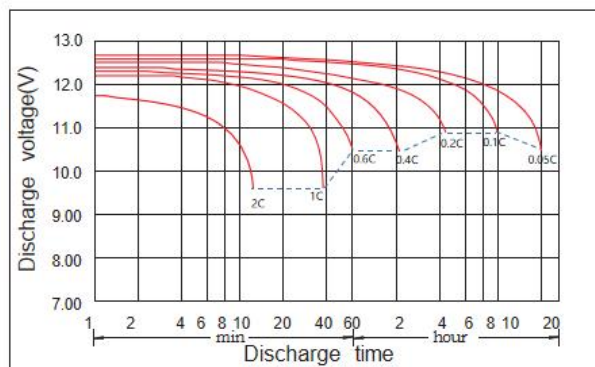
10Hour Rate (9.00A to 10.8V)	90.0Ah
3Hour Rate (23.9A to 10.2V)	71.7Ah
1Hour Rate (57.2A to 9.6V)	57.2Ah

Attain Certificate

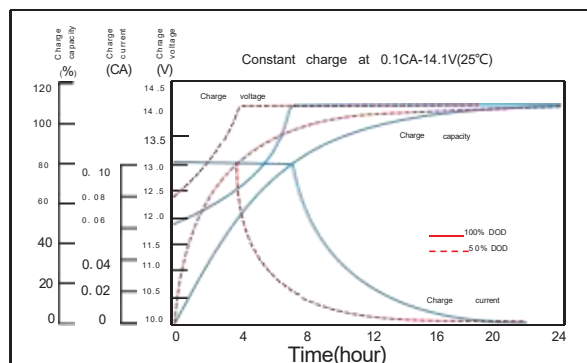


Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

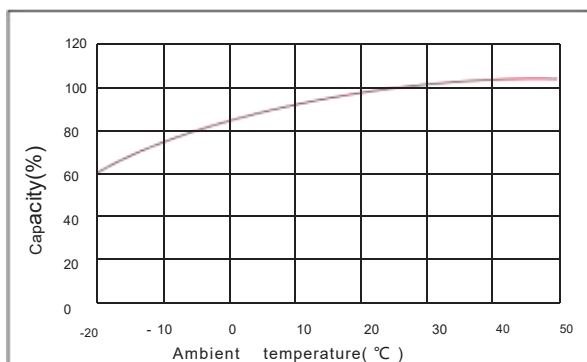
Discharge characteristic



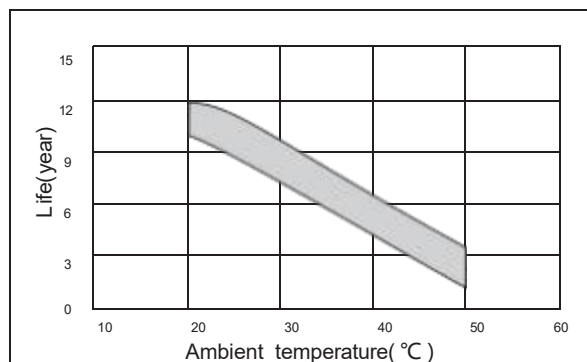
Charging characteristic



The effect of temperature on capacity



The effect of temperature on float life



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

FV/Time	15min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	168.6	99.5	72.5	57.2	42.3	33.7	25.4	20.5	17.4	14.8	11.4	9.49	4.97
1.65V	161.9	95.6	69.6	55.0	41.0	33.0	24.6	19.8	17.0	14.6	11.3	9.38	4.89
1.70V	151.7	91.3	66.5	52.7	39.4	31.6	23.9	19.4	16.5	14.3	11.1	9.24	4.84
1.75V	141.1	86.4	63.6	51.0	37.8	30.5	23.2	18.9	16.1	13.9	11.0	9.12	4.82
1.80V	132.9	84.1	61.3	48.8	36.0	29.5	23.0	18.3	15.7	13.5	10.8	9.00	4.77
1.85V	110.3	71.2	53.5	42.9	32.5	26.2	20.2	16.6	14.3	12.3	10.1	8.30	4.57

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

FV/Time	15min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	296.1	180.8	132.0	104.8	78.3	62.1	47.9	38.3	32.7	28.4	22.3	18.7	9.78
1.65V	287.3	175.4	127.7	101.8	76.3	61.0	47.2	37.4	32.0	28.1	22.1	18.5	9.64
1.70V	273.1	169.3	126.2	99.1	75.2	59.1	45.2	36.5	31.3	27.6	21.8	18.2	9.53
1.75V	257.8	163.5	121.0	97.0	73.1	57.5	44.9	35.7	30.6	26.9	21.5	18.0	9.50
1.80V	243.8	157.9	116.4	93.0	69.3	56.6	43.7	35.3	29.9	26.5	21.2	17.8	9.44
1.85V	203.2	137.3	103.4	83.1	64.4	51.7	39.2	32.5	28.0	24.2	20.0	16.8	8.89