



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

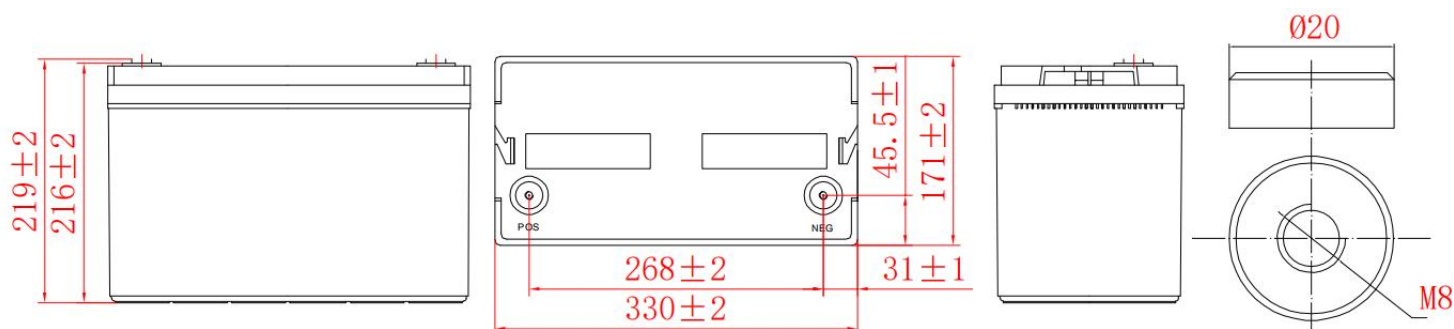
General Features

- 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: 330(L) × 171(W) × 216(H) × 219(TH) / (±3)

Unit: mm



Terminal Dimensions

Specification

Nominal Voltage	12V
Nominal Capacity	90Ah@10hour-rate to 1.80V per cell @25°C
Design life	10 years
Terminal	M8
Approx. Weight	Approx 27.0kg ± 3% (59.5lb ± 3%bs)
Container Material	ABS(UL94-HB, UL94-V0 Optional)
short-circuit current	2033A
Internal resistance(Full charged at 25°C:)	5.9 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

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 (56.9A to 9.6V)	56.9Ah

Attain Certificate

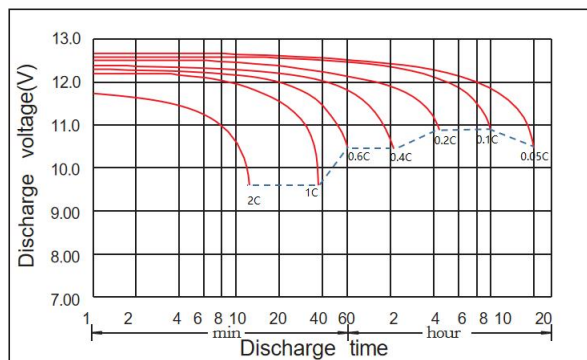


Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

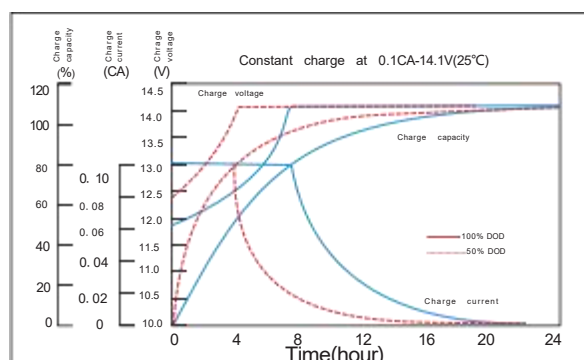


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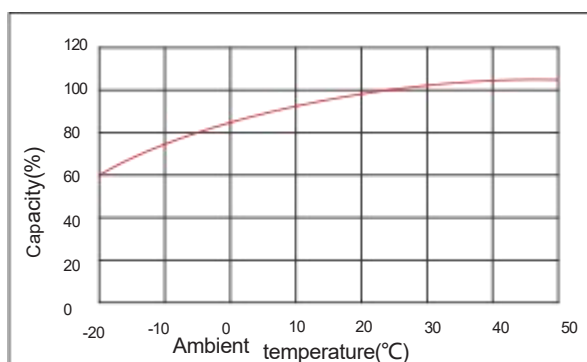
Discharge characteristic



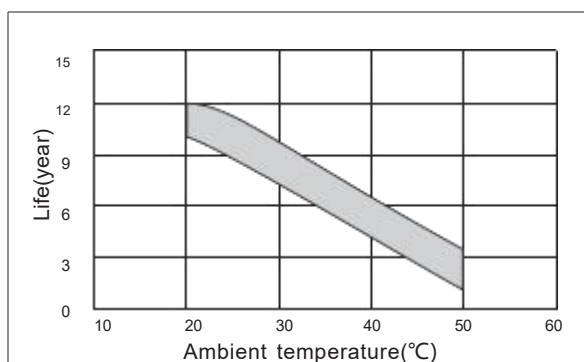
Charging characteristic



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	167.7	99.1	72.5	56.9	42.3	33.7	25.4	20.5	17.4	14.8	11.4	9.49	4.97
1.65V	161.1	95.1	69.6	54.7	41.0	33.0	24.6	19.8	17.0	14.6	11.3	9.38	4.89
1.70V	150.9	90.9	66.5	52.4	39.4	31.6	23.9	19.4	16.5	14.3	11.1	9.24	4.84
1.75V	140.4	86.0	63.6	50.8	37.8	30.5	23.2	18.9	16.1	13.9	11.0	9.12	4.82
1.80V	132.3	83.7	61.3	48.6	36.0	29.5	23.0	18.3	15.7	13.5	10.8	9.00	4.77
1.85V	109.8	70.8	53.5	42.7	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	294.6	179.9	132.0	104.2	78.3	62.1	47.9	38.3	32.7	28.4	22.3	18.7	9.78
1.65V	285.9	174.5	127.7	101.3	76.3	61.0	47.2	37.4	32.0	28.1	22.1	18.5	9.64
1.70V	271.7	168.5	126.2	98.6	75.2	59.1	45.2	36.5	31.3	27.6	21.8	18.2	9.53
1.75V	256.5	162.7	121.0	96.5	73.1	57.5	44.9	35.7	30.6	26.9	21.5	18.0	9.50
1.80V	242.6	157.1	116.4	92.5	69.3	56.6	43.7	35.3	29.9	26.5	21.2	17.8	9.44
1.85V	202.2	136.6	103.4	82.7	64.4	51.7	39.2	32.5	28.0	24.2	20.0	16.8	8.89