



JM Series lead-acid battery

JM12-33

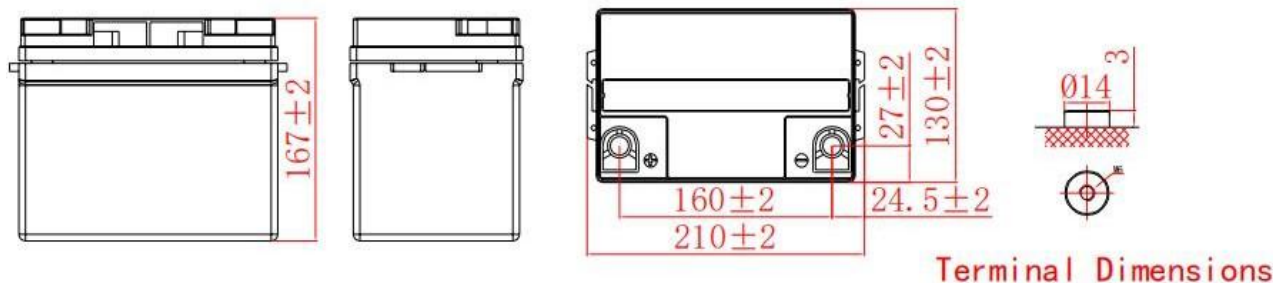
General Features

- ▶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:210(L)×130(W) ×167(H)×167(TH)

Unit: mm



Terminal Dimensions

Specification	
Nominal Voltage	12V
Nominal Capacity	33Ah@10hour-rate to 1.80V per cell @25°C
Design life	10 years
Terminal	M6
Approx. Weight	Approx10.2kg ±3%(22.49±3%lbs)
Container Material	ABS(UL94-HB, UL94-V0 Optional)
short-circuit current	1090A
Internal resistance(Full charged at 25°C:)	11.0 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. 8.3A;Recom.3.3A
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

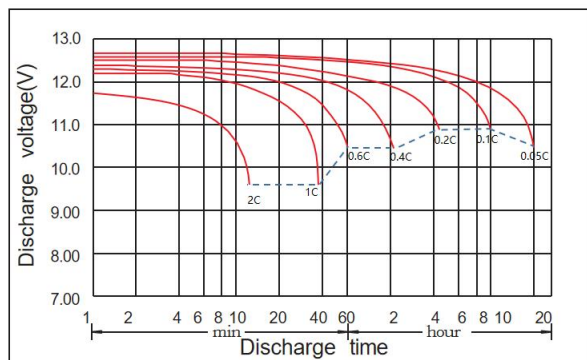
10Hour Rate (3.30A to 10.8V)	33.0Ah
3Hour Rate (8.8A to 10.2V)	26.4Ah
1Hour Rate (21.0A to 9.6V)	21.0Ah

Attain Certificate

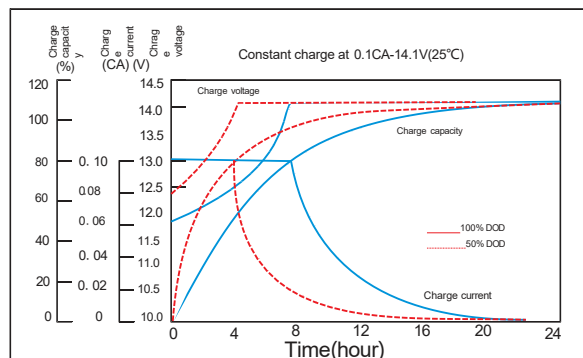
ISO 9001 CGM	ISO 14001 CGM	OHSAS 18001 CGM	RoHS
UL	CE	FC	PS E

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.

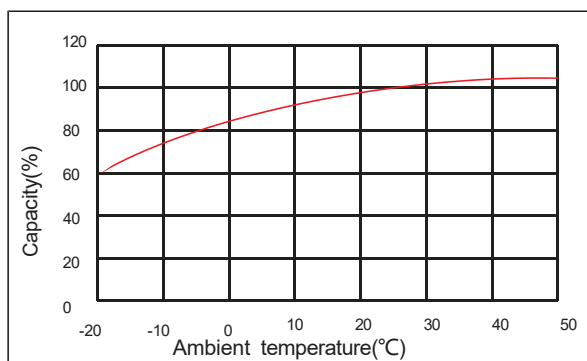
Discharge characteristic



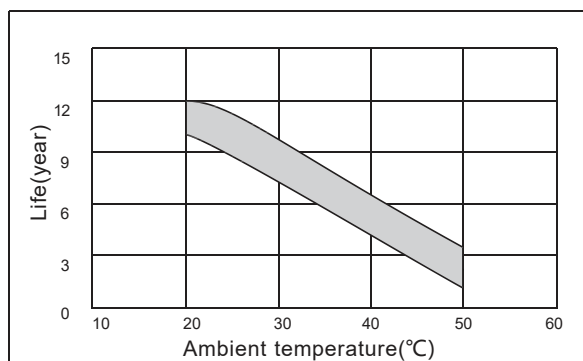
Charging characteristic



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	60.9	36.1	26.5	20.9	15.5	12.4	9.31	7.50	6.38	5.42	4.18	3.48	1.82
1.65V	58.5	34.7	25.4	20.1	15.0	12.1	9.02	7.26	6.22	5.35	4.14	3.44	1.79
1.70V	54.8	33.2	24.3	19.2	14.4	11.6	8.78	7.10	6.05	5.23	4.07	3.39	1.78
1.75V	51.0	31.4	23.2	18.6	13.9	11.2	8.51	6.92	5.90	5.10	4.02	3.34	1.77
1.80V	48.0	30.5	22.4	17.8	13.2	10.8	8.42	6.72	5.75	4.95	3.95	3.30	1.75
1.85V	39.8	25.8	19.5	15.7	11.9	9.59	7.40	6.09	5.23	4.51	3.71	3.04	1.68

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	107.0	65.6	48.1	38.2	28.7	22.8	17.6	14.0	12.0	10.4	8.17	6.84	3.59
1.65V	103.8	63.7	46.6	37.1	28.0	22.4	17.3	13.7	11.7	10.3	8.10	6.77	3.53
1.70V	98.6	61.5	46.0	36.2	27.6	21.7	16.6	13.4	11.5	10.1	7.99	6.68	3.50
1.75V	93.1	59.4	44.1	35.4	26.8	21.1	16.5	13.1	11.2	9.88	7.89	6.60	3.48
1.80V	88.1	57.3	42.5	33.9	25.4	20.7	16.0	13.0	11.0	9.71	7.78	6.52	3.46
1.85V	73.4	49.8	37.7	30.3	23.6	19.0	14.4	11.9	10.3	8.88	7.32	6.15	3.26