

# JM12-33



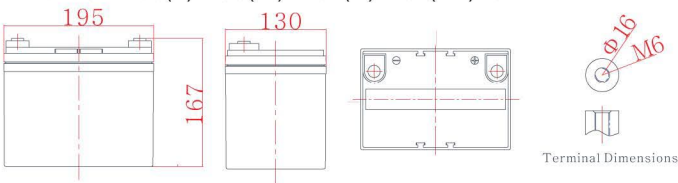
## JM Series lead-acid battery

### 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: 195(L)×130(W)×167(H)×167(TH) Unit: mm



### Applications

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

### Specification

Nominal Voltage	12V
Nominal Capacity	33Ah
Design life	10 years
Terminal	M6
Approx. Weight	Approx 11.5kg (25.4lbs)
Container Material	ABS
Rated Capacity	<b>33.0Ah</b> 10Hour Rate (3.30A to 10.8V)
	<b>26.6Ah</b> 3Hour Rate (8.86A to 10.8V)
	<b>21.6Ah</b> 1Hour Rate (21.6A to 10.5V)
Internal resistance	Full charged at 25°C: 12.5 mΩ
Max. Discharge Current	396A(5S)
Operating Temperature	Discharge: -20 ~50°C(-4~ 122°F)
	Charge: -20 ~50°C(-4~ 122°F)
	Storage: -20 ~50°C(-4~ 122°F)
Charge current:	Max. 8.3A ; Recom.3.3A
Charge Method (25 °C)	Float Charge:13.5-13.8V,recom.13.5V(-18mV/ °C)
	Equalize charge:13.8-14.1V,recom.14.1V(-24mV/ °C)
	Cycle charge:14.4-15.0V,recom.14.4V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

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

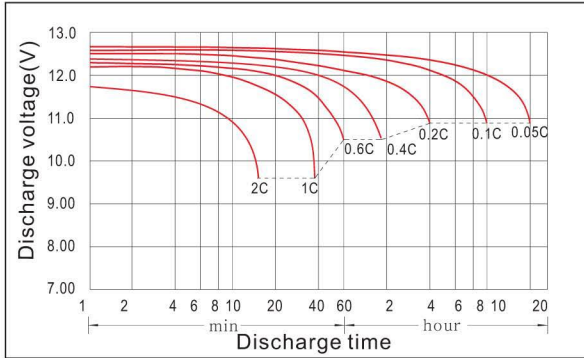
FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	116	62.5	38.0	22.2	12.7	9.25	6.21	4.08	3.43	1.80
1.65V	113	60.6	37.4	22.1	12.7	9.15	6.14	4.04	3.40	1.79
1.70V	108	59.3	36.7	21.9	12.6	9.02	6.08	4.01	3.37	1.78
1.75V	100	57.3	36.4	21.6	12.4	8.93	6.02	3.98	3.33	1.78
1.80V	89.2	53.5	34.8	21.1	12.2	8.86	5.85	3.95	3.30	1.77
1.85V	79.6	47.7	31.8	19.5	11.5	8.34	5.56	3.78	3.20	1.74

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

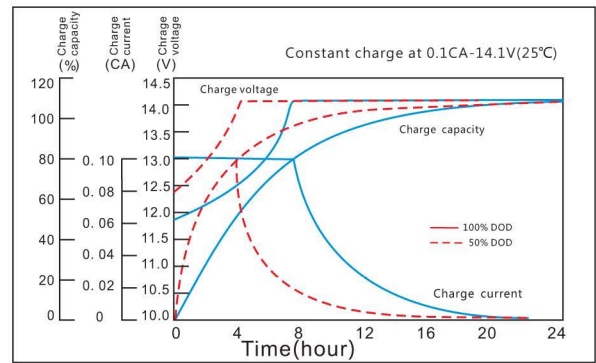
FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	195	110	68.8	42.0	24.1	17.6	11.8	7.92	6.60	3.56
1.65V	188	108	68.1	41.7	24.0	17.4	11.7	7.86	6.53	3.55
1.70V	187	107	68.1	41.4	23.9	17.3	11.6	7.82	6.47	3.53
1.75V	174	106	67.8	41.0	23.8	17.2	11.5	7.76	6.40	3.51
1.80V	160	100	66.2	40.7	23.7	17.1	11.4	7.69	6.34	3.50
1.85V	143	89.7	60.7	37.8	22.7	16.3	10.9	7.43	6.24	3.47

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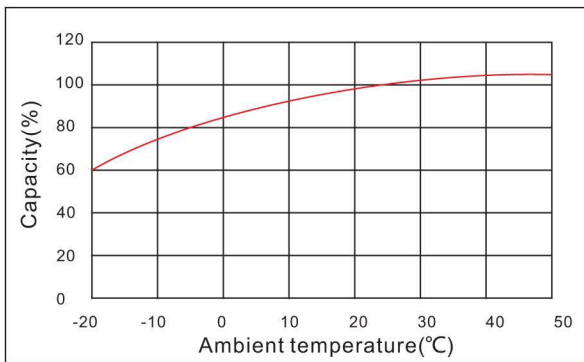
Discharge characteristic



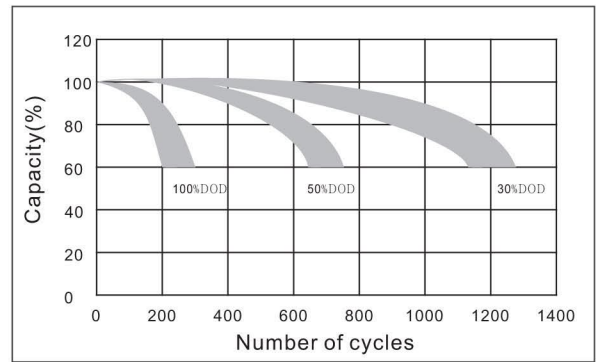
Charging characteristic



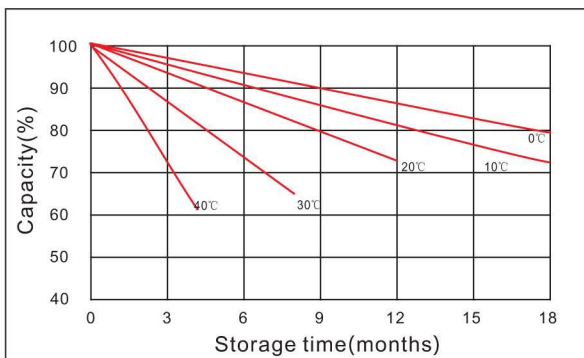
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



The effect of temperature on float life

