

## JM 12-42

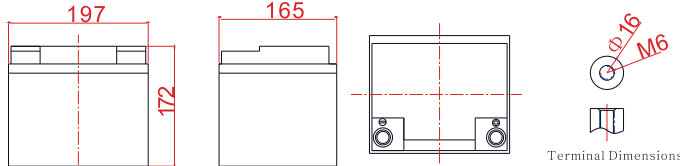


### General Features

- › 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: 197(L)×165(W)×172(H)×172(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	42Ah
Design life	10 years
Terminal	M6
Approx. Weight	Approx 13.2kg (29.1lbs)
Container Material	ABS
Rated Capacity	42.0Ah 20Hour Rate (2.10A to 10.5V)
	31.5Ah 3Hour Rate (10.5A to 10.5V)
	25.5Ah 1Hour Rate (25.5A to 10.5V)
Internal resistance	Full charged at 25°C: 12.0 mΩ
Max. Discharge Current	500A(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. 10.5A; Recom.4.2A
Charge Method (25°C)	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)
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	138	73.9	44.9	26.3	15.1	10.9	7.35	4.83	4.06	2.13
1.65V	133	71.8	44.1	26.1	15.0	10.8	7.27	4.79	4.02	2.12
1.70V	128	70.1	43.3	26.0	14.9	10.7	7.18	4.75	3.98	2.11
1.75V	118	67.6	42.8	25.5	14.7	10.5	7.10	4.70	3.94	2.10
1.80V	105	63.4	41.2	24.9	14.4	10.5	6.93	4.66	3.90	2.09
1.85V	94	56.3	37.5	23.1	13.7	9.87	6.59	4.49	3.78	2.05

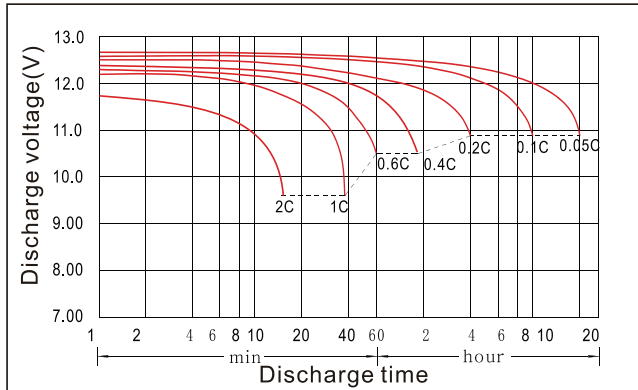
### Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	248	140	87.4	53.3	30.7	22.4	15.0	10.1	8.40	4.54
1.65V	239	138	86.5	52.9	30.6	22.1	14.9	10.0	8.32	4.54
1.70V	237	136	86.5	52.5	30.5	22.0	14.8	10.0	8.23	4.49
1.75V	221	135	86.1	52.1	30.3	21.8	14.7	9.87	8.15	4.49
1.80V	203	128	84.4	51.7	30.2	21.8	14.5	9.79	8.06	4.45
1.85V	181	114	77.3	48.3	28.9	20.7	13.9	9.45	7.94	4.41

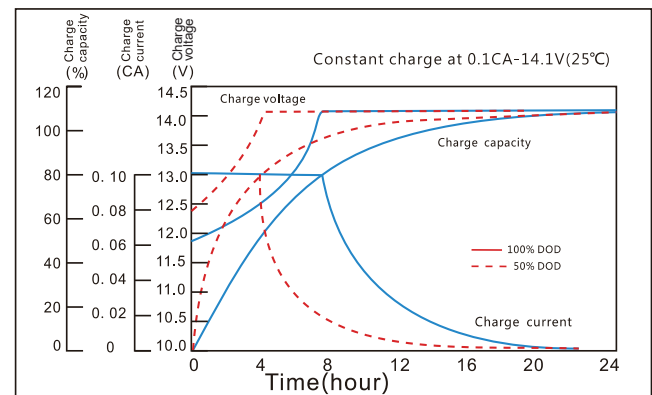


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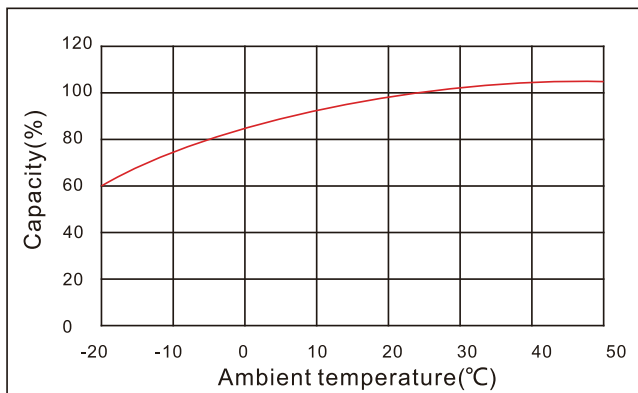
## Discharge characteristic



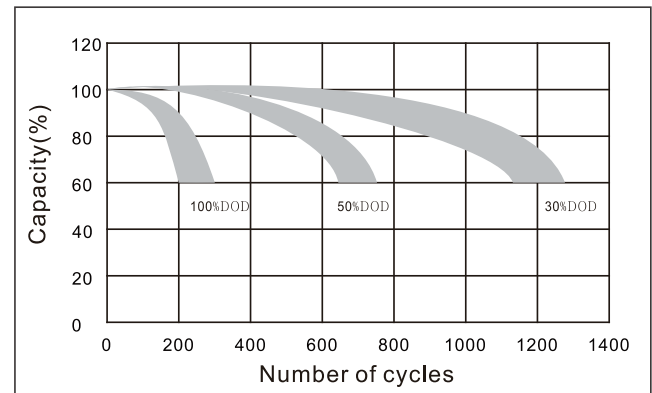
## Charging characteristic



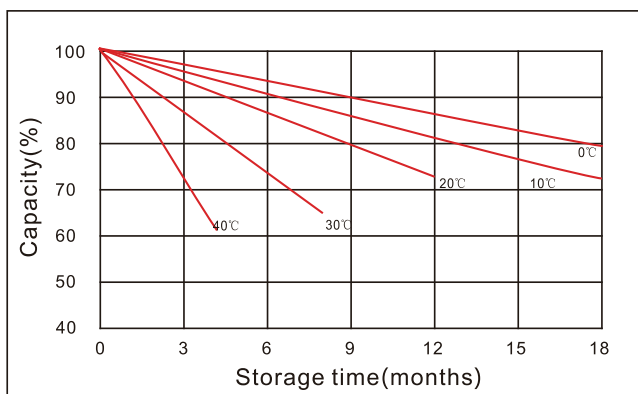
## The effect of temperature on capacity



## The effect of discharge depth on cycle life



## Curves of self-discharge



## The effect of temperature on float life

