

## JH12-48W



### Applications

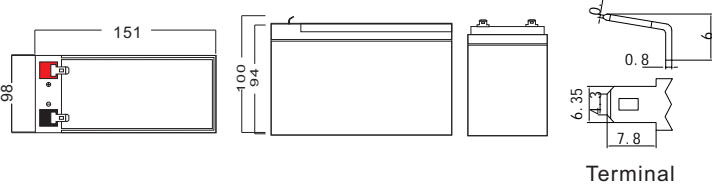
- > UPS/EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Solar/wind generating storage cyclic
- > Other general purpose

### 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: 151(L)×98(W)×94(H)×100(TH) Unit: mm



### Specification

Nominal Voltage	12V
Nominal Capacity	14Ah (48W@15min-rate to 1.67V per cell @25°C)
Design life	8 years
Terminal	F250
Approx. Weight	Approx 3.95kg (8.71bs)
Container Material	ABS (UL94-HB, UL94-V0 Optional)
Rated Capacity	14.0Ah → 20Hour Rate (0.700A to 10.5V)
	11.0Ah → 3Hour Rate (3.68A to 10.2V)
	8.20Ah → 1Hour Rate (8.20A to 9.6V)
Internal resistance	Full charged at 25°C: 18 mΩ
Max. Discharge Current	180A(5S) Discharge: -20 ~50°C (-4 ~ 122°F)
Operating Temperature	Charge: -20 ~50°C (-4 ~ 122°F)
	Storage: -20 ~50°C (-4 ~ 122°F)
	Charge current: Max. 3.5A ; Recom. 1.5A
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

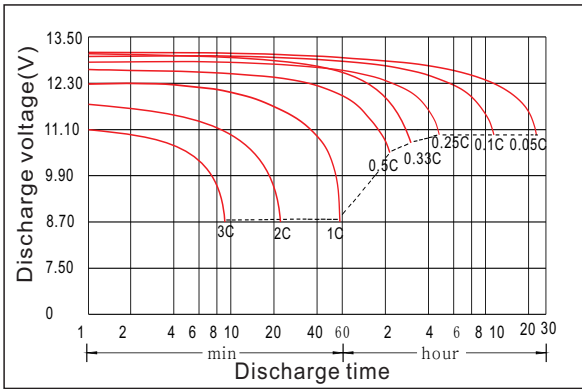
### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

FV/Time	5min	10min	15min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	50.7	36.0	29.1	14.7	10.0	8.20	6.60	5.29	3.86	3.09	2.63	2.04	1.74	1.39	0.742
1.67V	47.3	33.9	28.0	14.2	9.86	8.10	6.30	5.08	3.75	3.00	2.58	2.01	1.71	1.37	0.728
1.70V	45.9	32.8	27.2	13.9	9.65	7.90	6.20	4.98	3.68	2.84	2.55	1.97	1.68	1.34	0.714
1.75V	44.3	31.3	26.2	13.4	9.50	7.80	6.10	4.86	3.63	2.80	2.44	1.94	1.64	1.32	0.700
1.80V	42.4	29.4	25.4	12.9	9.29	7.60	6.00	4.73	3.43	2.74	2.34	1.89	1.60	1.29	0.672
1.85V	39.6	27.7	24.0	12.4	8.98	7.30	5.80	4.57	3.32	2.65	2.26	1.83	1.55	1.25	0.650

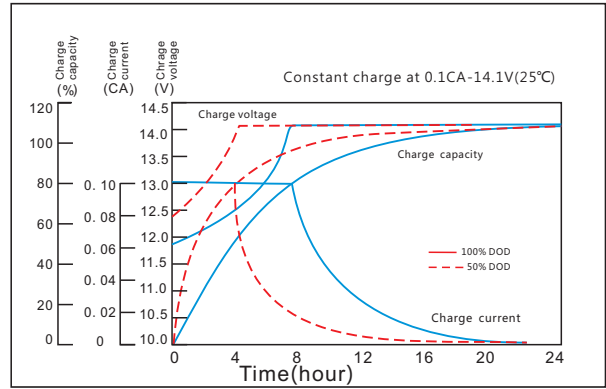
### Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

FV/Time	5min	10min	15min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	86.7	59.8	49.4	27.4	19.4	15.4	12.2	9.92	7.30	5.86	4.97	3.95	3.28	2.69	1.47
1.67V	80.3	57.2	48.0	26.6	18.9	15.0	11.9	9.54	7.09	5.67	4.88	3.86	3.23	2.63	1.43
1.70V	76.0	55.7	47.1	26.2	18.8	14.9	11.8	9.36	6.98	5.39	4.74	3.83	3.19	2.61	1.42
1.75V	74.2	53.7	45.7	25.6	18.4	14.8	11.7	9.15	6.88	5.32	4.64	3.74	3.06	2.55	1.39
1.80V	71.7	51.2	44.4	24.7	18.0	14.6	11.6	9.08	6.70	5.27	4.53	3.67	2.96	2.50	1.38
1.85V	69.1	48.9	42.9	24.0	17.4	14.3	11.3	8.78	6.48	5.09	4.38	3.54	2.86	2.42	1.33

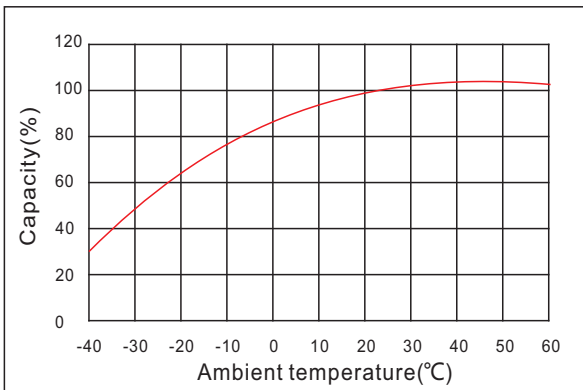
### Discharge characteristic



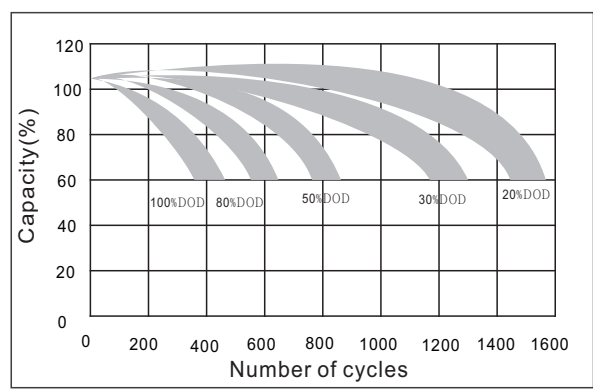
### Charging characteristic



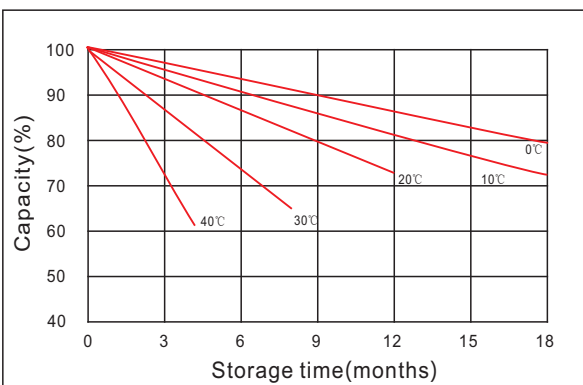
### The effect of temperature on capacity



### The effect of discharge depth on cycle life



### Curves of self-discharge



### Curves of open circuit voltage vs. capacity

