



# DJW SERIES-General Purpose

## DJW12-9.0 (12V9.0AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	9.0AH	
Dimension	Length	151 ± 1mm (5.95 inches)
	Width	98 ± 1mm (3.86 inches)
	Container Height	95 ± 1mm (3.74 inches)
	Total Height (with Terminal)	101 ± 1mm (3.98 inches)
Approx Weight	Approx 3.10 kg (6.83lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	9.00 AH/0.450A	(20hr, 1.80V/cell, 25°C/77°F)
	8.37 AH/0.837A	(10hr, 1.80V/cell, 25°C/77°F)
	7.65 AH/1.53A	(5hr, 1.75V/cell, 25°C/77°F)
	6.90 AH/2.30A	(3hr, 1.75V/cell, 25°C/77°F)
	5.65 AH/5.65A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	135A (5s)	
Internal Resistance	Approx 19mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	0 ~ 40°C (32 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial Charging Current less than 2.7A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	DJW series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



### Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.1	13.2	10.9	9.43	7.29	5.37	4.53	2.68	2.09	1.70	1.39	1.21	0.972	0.812	0.446
1.80V/cell	23.0	16.8	13.2	11.1	8.60	6.25	5.07	2.92	2.25	1.82	1.49	1.29	1.031	0.837	0.450
1.75V/cell	25.9	18.5	14.4	12.0	8.93	6.48	5.30	3.03	2.30	1.86	1.53	1.33	1.049	0.860	0.455
1.70V/cell	28.6	20.1	15.4	12.6	9.29	6.74	5.47	3.11	2.36	1.91	1.57	1.36	1.063	0.877	0.463
1.65V/cell	31.5	21.7	16.3	13.4	9.80	6.91	5.60	3.15	2.46	1.97	1.61	1.39	1.080	0.895	0.469
1.60V/cell	34.7	23.6	17.5	14.3	10.4	7.20	5.65	3.29	2.53	2.04	1.67	1.41	1.090	0.905	0.472

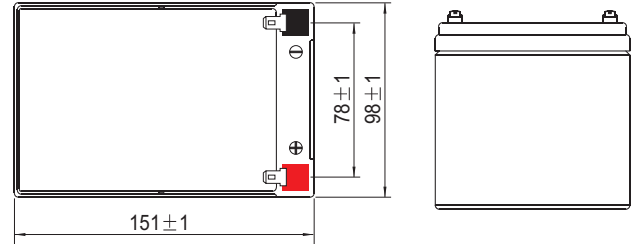
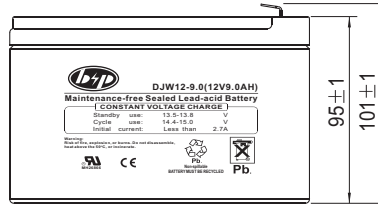
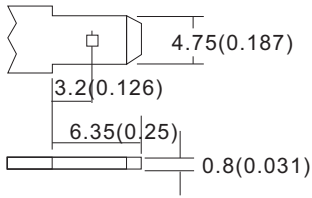
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	31.3	24.3	20.3	17.8	13.9	10.3	8.73	5.20	4.08	3.33	2.72	2.37	1.92	1.61	0.883
1.80V/cell	41.6	30.7	24.2	20.7	16.1	11.9	9.73	5.64	4.37	3.54	2.91	2.53	2.03	1.65	0.890
1.75V/cell	45.9	33.2	26.2	22.1	16.6	12.2	10.1	5.82	4.43	3.60	2.98	2.59	2.06	1.70	0.898
1.70V/cell	49.2	35.4	27.5	23.0	17.2	12.7	10.4	5.95	4.55	3.69	3.05	2.64	2.09	1.73	0.913
1.65V/cell	53.4	37.8	29.1	24.2	18.0	12.9	10.6	6.01	4.72	3.80	3.12	2.69	2.11	1.76	0.925
1.60V/cell	57.6	40.1	30.6	25.6	18.9	13.4	10.6	6.23	4.84	3.91	3.21	2.74	2.13	1.78	0.929

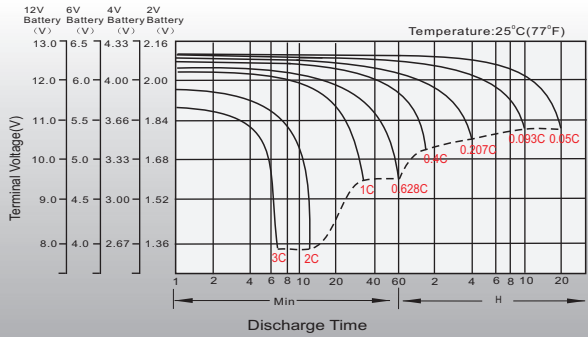
# Dimensions

## T1 Terminal

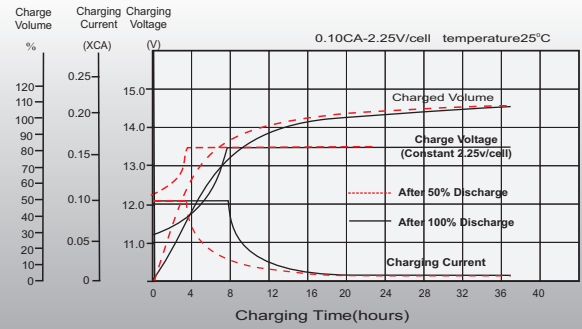
Unit: mm [inches]



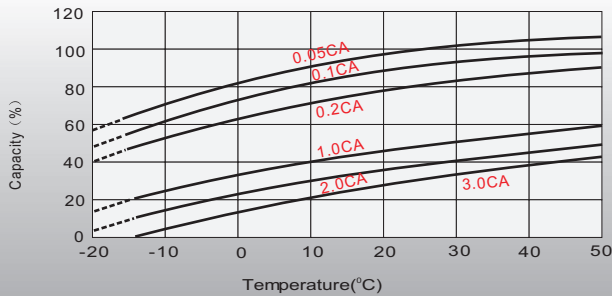
## Discharge Characteristics



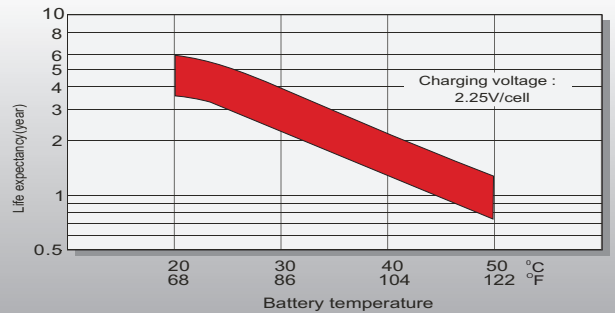
## Float Charging Characteristics



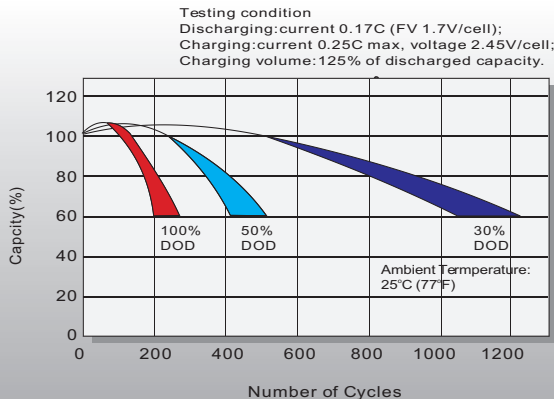
## Temperature Effects in Relation to Battery Capacity



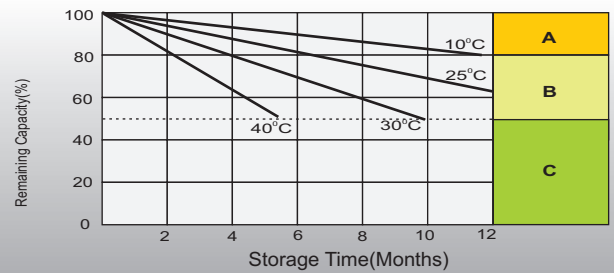
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:  
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
 3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.