



# DJW SERIES-General Purpose

## DJW12-7.0 (12V7.0AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	7.0AH	
Dimension	Length	151 ± 1mm (5.95 inches)
	Width	65 ± 1mm (2.56 inches)
	Container Height	94.5 ± 1mm (3.72 inches)
	Total Height (with Terminal)	100 ± 1mm (3.94 inches)
Approx Weight	Approx 2.2 kg (4.85lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	7.00 AH/0.350A	(20hr, 1.80V/cell, 25°C/77°F)
	6.51 AH/0.651A	(10hr, 1.80V/cell, 25°C/77°F)
	5.95 AH/1.19A	(5hr, 1.75V/cell, 25°C/77°F)
	5.37 AH/1.79A	(3hr, 1.75V/cell, 25°C/77°F)
	4.40 AH/4.40A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	105A (5s)	
Internal Resistance	Approx 23mΩ	
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 2.1A. 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	13.3	10.2	8.48	7.33	5.67	4.18	3.52	2.08	1.63	1.32	1.08	0.94	0.756	0.631	0.347
1.80V/cell	17.9	13.1	10.2	8.67	6.69	4.86	3.94	2.27	1.75	1.41	1.16	1.01	0.802	0.651	0.350
1.75V/cell	20.2	14.4	11.2	9.32	6.94	5.04	4.13	2.36	1.79	1.45	1.19	1.03	0.816	0.669	0.354
1.70V/cell	22.2	15.7	11.9	9.80	7.23	5.24	4.26	2.42	1.83	1.48	1.22	1.05	0.827	0.682	0.360
1.65V/cell	24.5	16.9	12.7	10.4	7.63	5.37	4.35	2.45	1.91	1.54	1.25	1.08	0.840	0.696	0.365
1.60V/cell	27.0	18.4	13.6	11.1	8.05	5.60	4.40	2.56	1.97	1.58	1.30	1.10	0.848	0.704	0.367

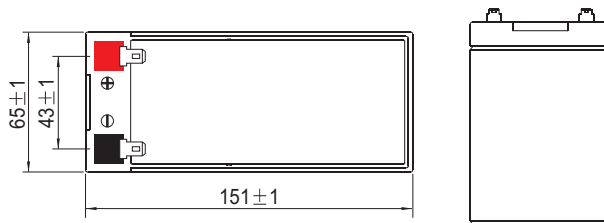
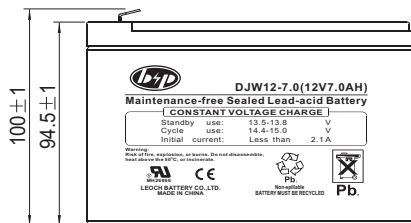
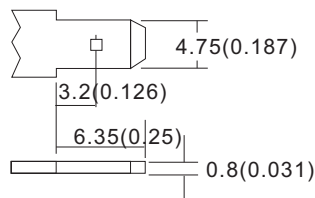
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	24.4	18.9	15.8	13.8	10.8	8.03	6.79	4.04	3.18	2.59	2.12	1.84	1.492	1.250	0.686
1.80V/cell	32.4	23.9	18.9	16.1	12.6	9.26	7.57	4.38	3.40	2.75	2.26	1.97	1.578	1.286	0.692
1.75V/cell	35.7	25.8	20.3	17.2	12.9	9.52	7.88	4.53	3.45	2.80	2.31	2.02	1.602	1.319	0.698
1.70V/cell	38.2	27.5	21.4	17.9	13.4	9.86	8.10	4.63	3.54	2.87	2.37	2.05	1.622	1.345	0.710
1.65V/cell	41.6	29.4	22.6	18.9	14.0	10.0	8.23	4.67	3.67	2.96	2.43	2.09	1.644	1.370	0.719
1.60V/cell	44.8	31.2	23.8	19.9	14.7	10.4	8.26	4.85	3.76	3.04	2.50	2.13	1.656	1.383	0.722

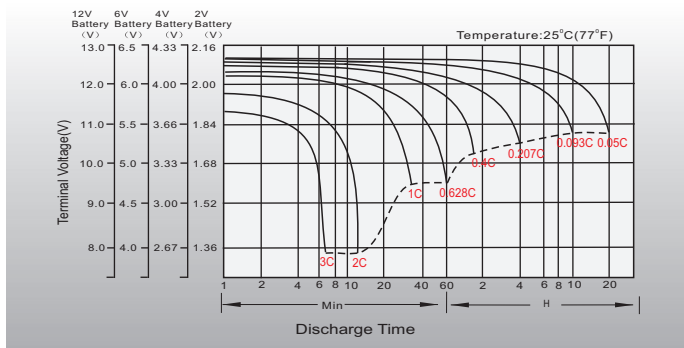
# Dimensions

## T1 Terminal

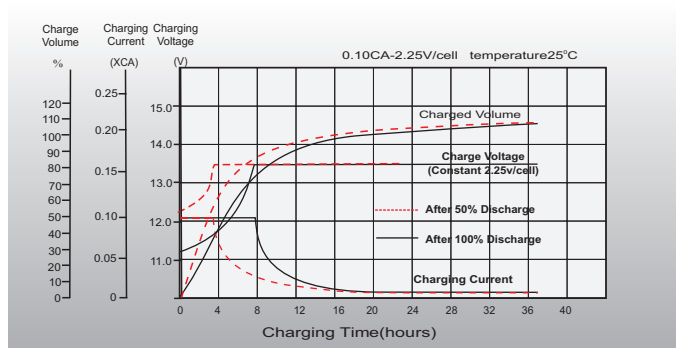
Unit: mm [inches]



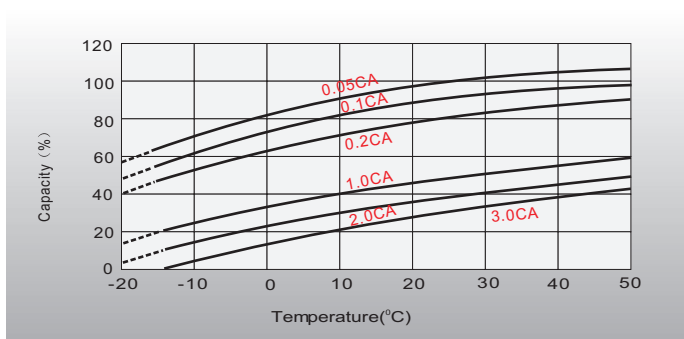
## Discharge Characteristics



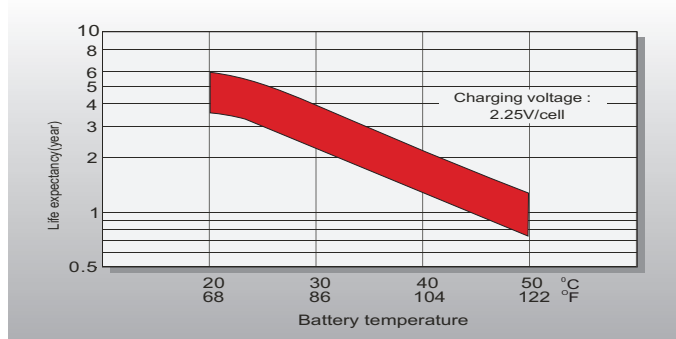
## Float Charging Characteristics



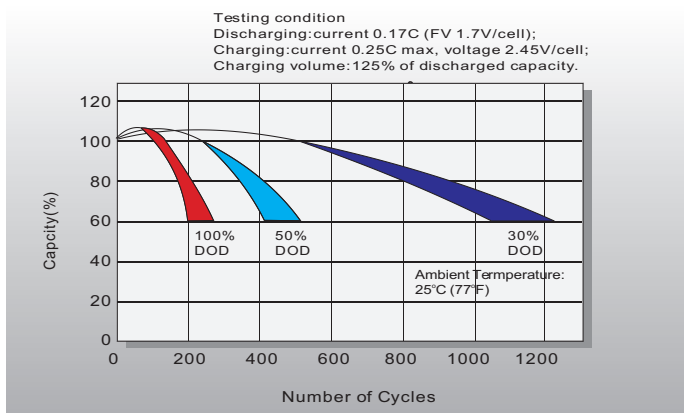
## Temperature Effects in Relation to Battery Capacity



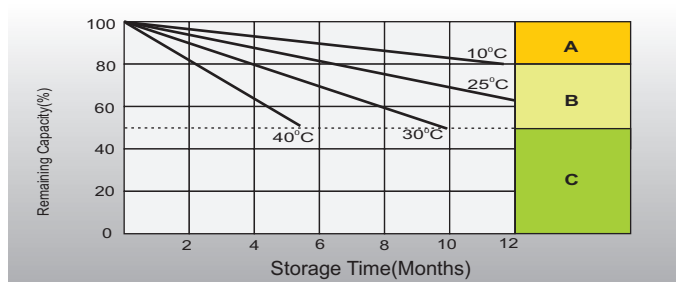
## Effect of Temperature on Long Term Float Life



## 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.