

## CJ 12-40 (12V40AH)



### Specification

Nominal Voltage	12V
Nominal Capacity(20HR)	40.0AH
Dimension	Length 197±2mm (7.76 inches)
	Width 165±2mm (6.50 inches)
	Container Height 170±2mm (6.69 inches)
	Total Height (with Terminal) 170±2mm (6.69 inches)
Approx Weight	Approx 13.2 kg (29.1lbs)
Terminal	T6 / T12
Container Material	ABS
Rated Capacity	40.0 AH/2.0A (20hr, 1.80V/cell, 25°C/77°F)
	38.0 AH/3.8A (10hr, 1.80V/cell, 25°C/77°F)
	32.7 AH/6.55A (5hr, 1.75V/cell, 25°C/77°F)
	29.7 AH/9.89A (3hr, 1.75V/cell, 25°C/77°F)
	23.2 AH/23.2A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	480A (5s)
Internal Resistance	Approx 10mΩ
Operating Temp. Range	Discharge : -15~50°C (5~120°F)
	Charge : 0~40°C (5~104°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 12.0A. Voltage 14.4V~15.0V at 25°C(77°F) Temp. Coefficient -30mV/°C
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F) Temp. Coefficient -20mV/°C
Standby Use	
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	CJ 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	65.0	51.1	43.5	36.4	28.9	21.9	17.9	11.4	9.02	7.37	5.94	5.17	4.20	3.59	1.96
1.80V/cell	87.3	65.3	52.5	43.0	34.1	25.4	20.1	12.5	9.71	7.87	6.38	5.55	4.45	3.80	2.00
1.75V/cell	98.4	71.8	57.4	46.2	35.4	26.4	21.0	12.9	9.89	8.04	6.54	5.70	4.53	3.84	2.02
1.70V/cell	108.4	78.2	61.3	48.6	36.9	27.5	21.7	13.4	10.2	8.26	6.71	5.82	4.59	3.88	2.04
1.65V/cell	119.5	84.4	65.1	51.6	38.9	28.1	22.4	13.8	10.6	8.54	6.90	5.95	4.67	3.96	2.06
1.60V/cell	131.8	91.7	69.7	55.0	41.0	29.3	23.2	14.3	10.9	8.81	7.13	6.08	4.71	4.00	2.07

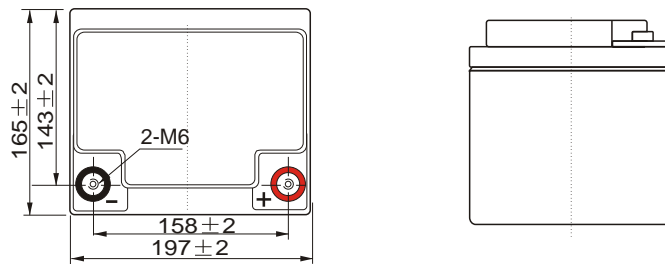
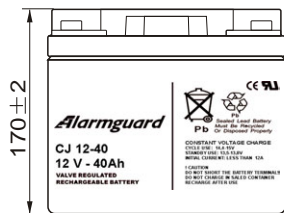
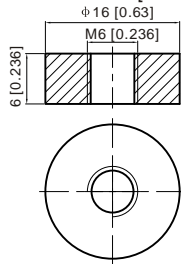
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	118.9	94.5	81.1	68.6	55.1	42.1	34.6	22.2	17.6	14.4	11.6	10.17	8.29	7.10	3.88
1.80V/cell	157.9	119.3	96.7	79.9	64.0	48.5	38.5	24.0	18.8	15.3	12.4	10.86	8.77	7.51	3.91
1.75V/cell	174.3	128.9	104.3	85.1	65.9	49.9	40.1	24.8	19.1	15.6	12.7	11.13	8.90	7.57	3.94
1.70V/cell	186.6	137.4	109.9	88.7	68.2	51.7	41.2	25.8	19.6	16.0	13.0	11.34	9.01	7.64	4.01
1.65V/cell	202.8	146.9	115.9	93.6	71.4	52.5	42.3	26.3	20.3	16.5	13.3	11.56	9.13	7.79	4.06
1.60V/cell	218.5	155.8	121.9	98.6	74.8	54.4	43.6	27.1	20.9	16.9	13.7	11.77	9.20	7.86	4.08

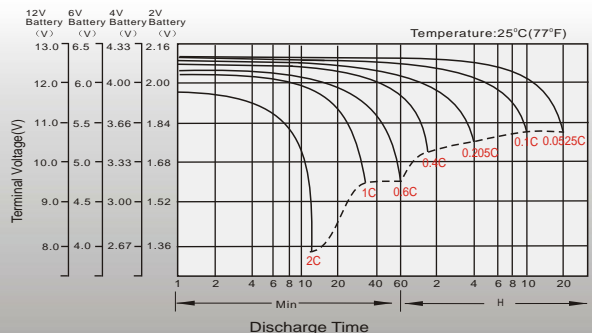
# Dimensions

## T6 Terminal

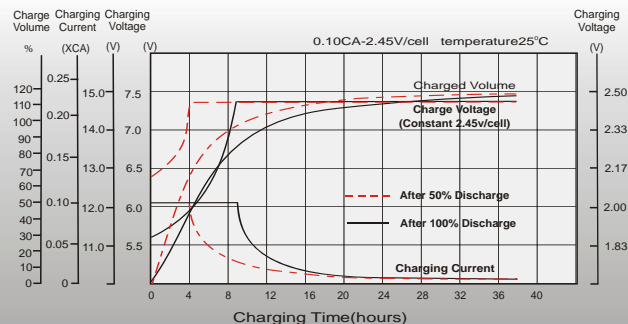
Unit: mm [inches]



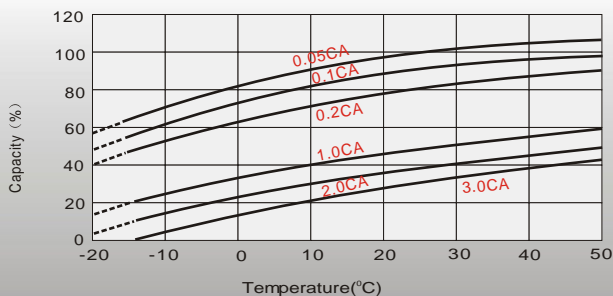
## Discharge Characteristics



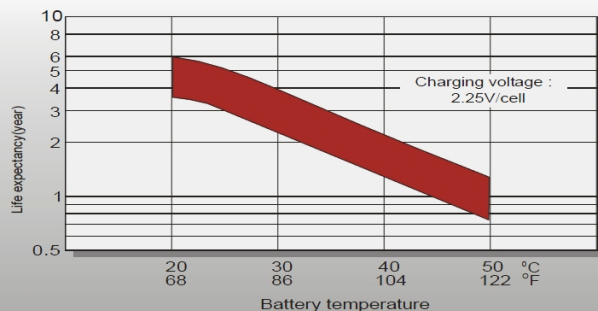
## Charging Characteristics (cycle use)



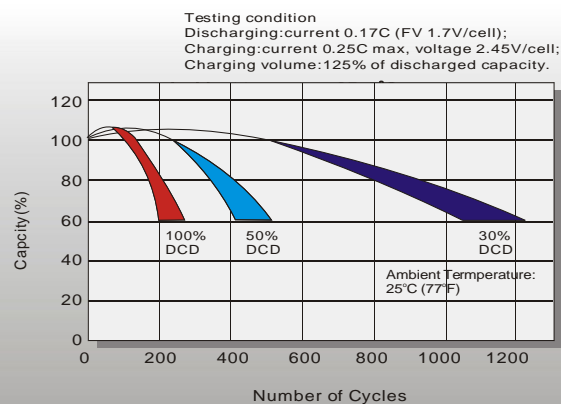
## Temperature Effects in Relation to Batter Capacity



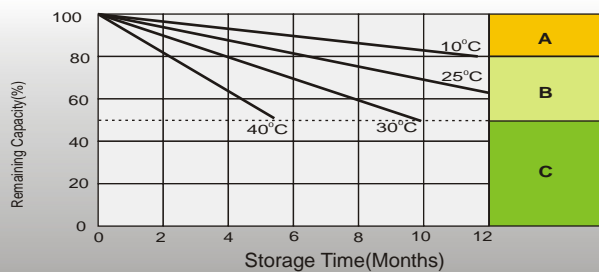
## Effect of Temperature on Long Term Float Life



## 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.