

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	33.0AH	
Dimension	Length	195±2mm (7.68 inches)
	Width	130±2mm (5.12 inches)
	Container Height	164±2mm (6.46 inches)
	Total Height (with Terminal)	167±2mm (6.57 inches)
Approx Weight	Approx 11.2 Kg (24.7lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	35.0AH/1.75A	(20hr, 1.80V/cell, 25°C/77°F)
	33.0AH/3.30A	(10hr, 1.80V/cell, 25°C/77°F)
	28.7AH/5.73A	(5hr, 1.75V/cell, 25°C/77°F)
	26.1AH/8.69A	(3hr, 1.75V/cell, 25°C/77°F)
	20.3AH/20.3A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	396A (5s)	
Internal Resistance	Approx 12.0mΩ	
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 9.9A. 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	LL 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

- ◆ UPS and EPS
- ◆ Emergency light
- ◆ Railway signal and aircraft signal system
- ◆ Marine and power stations Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply, DC power supply

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	42.6	35.5	30.3	24.7	18.7	15.7	10.0	7.93	6.43	5.19	4.56	3.65	3.12	1.73
1.80V/cell	54.4	42.9	35.8	29.2	21.8	17.6	10.9	8.53	6.86	5.58	4.89	3.87	3.30	1.75
1.75V/cell	59.8	46.9	38.5	30.3	22.6	18.4	11.3	8.69	7.03	5.73	5.02	3.94	3.33	1.77
1.70V/cell	65.1	50.0	40.5	31.5	23.5	19.0	11.8	8.93	7.20	5.87	5.13	3.99	3.37	1.80
1.65V/cell	70.3	53.2	43.0	33.3	24.1	19.6	12.1	9.31	7.45	6.03	5.24	4.06	3.44	1.82
1.60V/cell	76.3	56.9	45.8	35.1	25.1	20.3	12.5	9.60	7.68	6.23	5.35	4.10	3.47	1.83

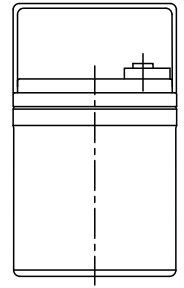
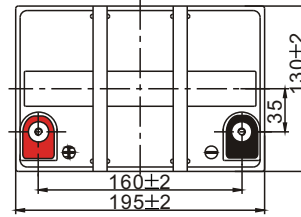
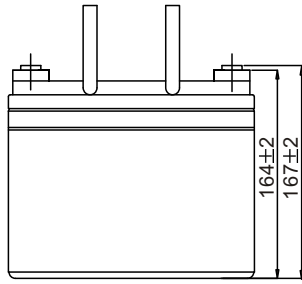
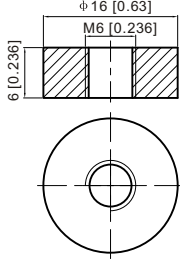
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	80.1	67.5	58.1	48.0	36.6	30.8	19.8	15.7	12.8	10.4	9.1	7.3	6.3	3.5
1.80V/cell	101.2	80.5	67.7	55.8	42.2	34.3	21.5	16.8	13.6	11.1	9.7	7.8	6.6	3.5
1.75V/cell	109.4	86.9	72.2	57.5	43.4	35.7	22.2	17.1	13.9	11.3	10.0	7.9	6.7	3.5
1.70V/cell	116.6	91.5	75.3	59.5	45.0	36.8	23.0	17.5	14.2	11.6	10.2	8.0	6.8	3.6
1.65V/cell	124.7	96.5	79.4	62.2	45.7	37.7	23.5	18.2	14.6	11.9	10.4	8.1	6.9	3.7
1.60V/cell	132.4	101.6	83.7	65.3	47.4	38.9	24.2	18.7	15.0	12.2	10.6	8.1	6.9	3.7

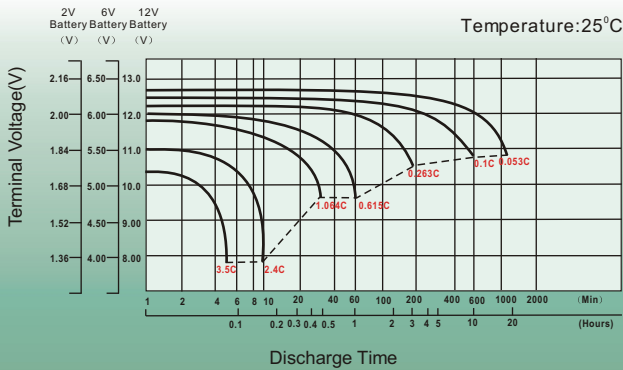
Dimensions

T6 Terminal

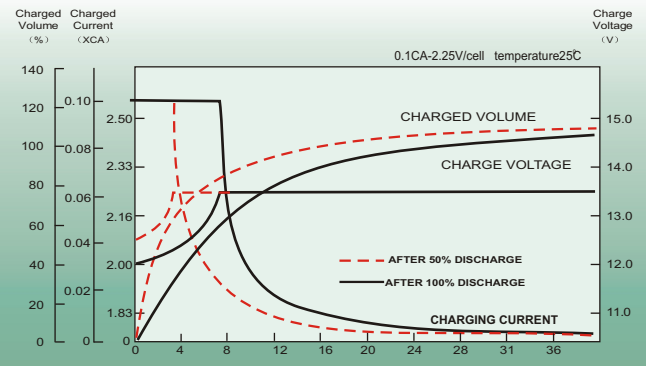
Unit: mm [inches]



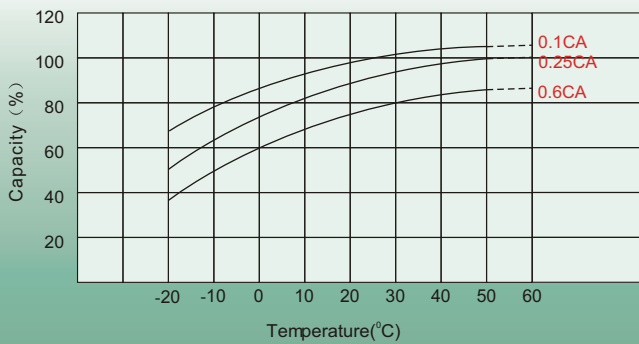
Discharge Characteristics



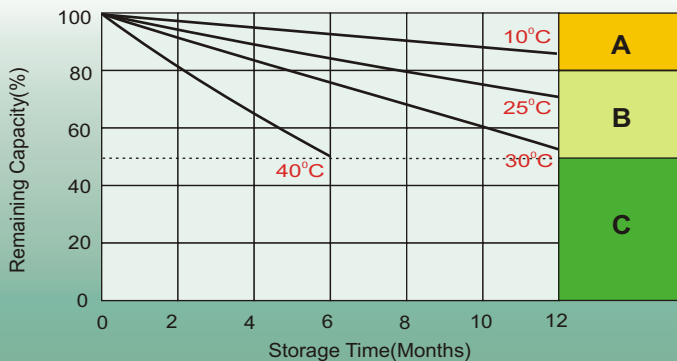
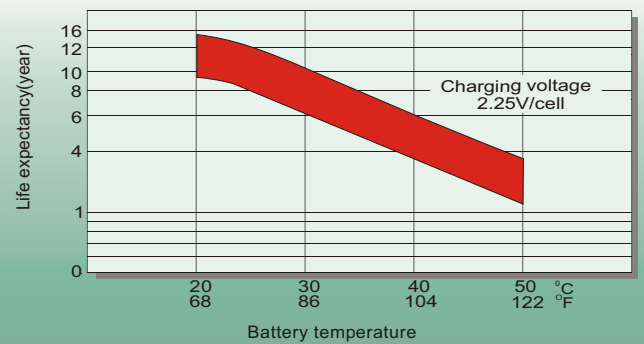
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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 volatge 2.25V/cell.
 2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3. Charged for 8-10hours 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.