

LL SERIES-Long Life

LL12100 (12V 100AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	100.0AH	
Dimension	Length	330±3mm (12.99 inches)
	Width	173±2mm (6.81 inches)
	Container Height	212±3mm (8.35 inches)
	Total Height (with Terminal)	220±3mm (8.66 inches)
Approx Weight	Approx 32.0 Kg (70.5 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	107.0AH/5.35A	(20hr , 1.80V/cell, 25°C/77°F)
	100.0AH/10.0A	(10hr , 1.80V/cell, 25°C/77°F)
	94.5AH/18.9A	(5hr , 1.75V/cell, 25°C/77°F)
	86.1AH/28.7A	(3hr , 1.75V/cell, 25°C/77°F)
	75.7AH/75.7A	(1hr , 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
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 30.0A. 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 20°C(68°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	138.1	124.6	109.3	92.9	69.4	58.5	37.2	26.2	21.2	17.2	15.1	11.3	9.7	5.17
1.80V/cell	176.5	150.5	129.2	103.6	77.8	63.7	40.0	28.2	22.7	18.4	16.2	11.9	10.0	5.35
1.75V/cell	193.9	164.5	139.0	111.4	83.8	68.5	42.0	28.7	23.2	18.9	16.6	12.3	10.3	5.49
1.70V/cell	211.4	175.5	146.0	116.0	87.1	70.8	43.8	29.5	23.8	19.4	16.9	12.8	10.7	5.63
1.65V/cell	228.1	186.6	155.1	122.3	89.3	73.1	44.9	30.8	24.6	19.9	17.3	13.2	11.0	5.80
1.60V/cell	247.7	199.6	165.2	129.1	93.1	75.7	46.5	31.7	25.4	20.6	17.7	13.4	11.2	5.89

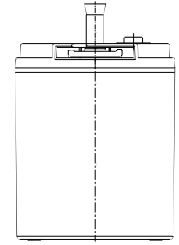
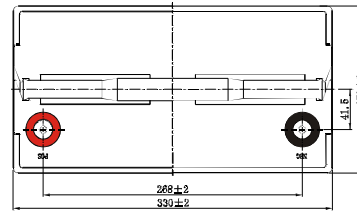
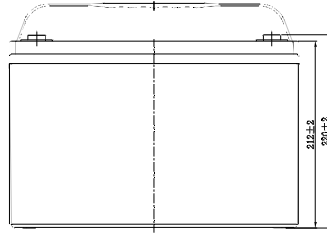
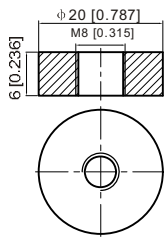
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	257.9	235.0	208.1	178.8	134.8	114.1	72.9	51.6	41.9	34.0	29.9	22.5	19.4	10.3
1.80V/cell	325.7	280.1	242.4	196.5	149.9	123.5	77.9	55.2	44.5	36.3	32.0	23.7	20.0	10.7
1.75V/cell	352.2	302.3	258.3	209.6	160.0	132.3	81.6	56.0	45.5	37.2	32.7	24.4	20.5	11.0
1.70V/cell	375.3	318.2	269.5	217.0	165.8	136.1	84.7	57.5	46.5	38.0	33.4	25.4	21.3	11.2
1.65V/cell	401.4	335.9	284.2	227.0	168.4	139.7	86.7	59.7	47.9	39.0	34.0	26.1	21.9	11.6
1.60V/cell	425.9	353.3	299.4	238.0	174.6	143.9	89.1	61.2	49.3	40.1	34.6	26.4	22.2	11.7

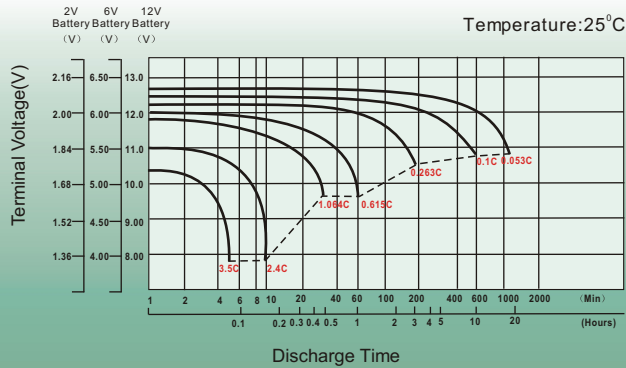
Dimensions

T11 Terminal

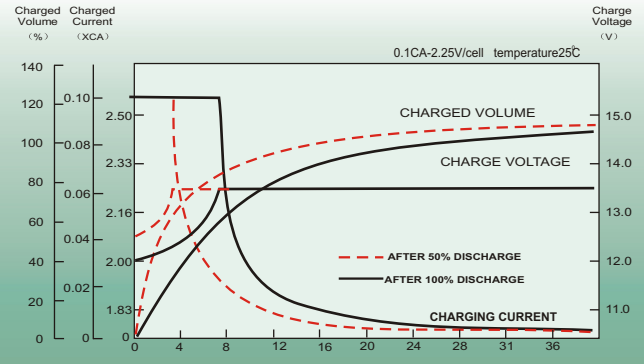
Unit: mm [inches]



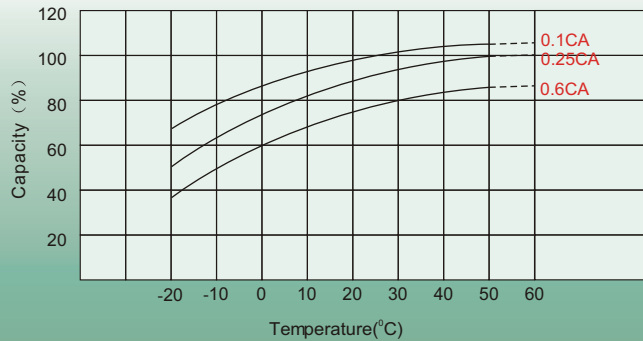
Discharge Characteristics



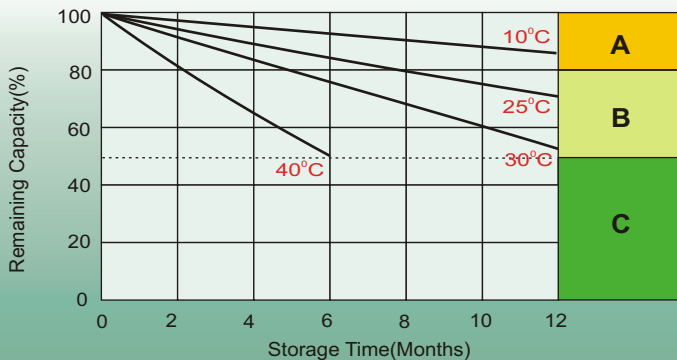
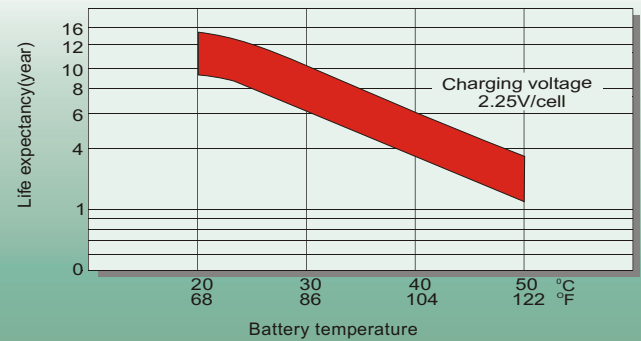
Float Charging Characteristics



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 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.