

LL SERIES-Long Life

LL12070 (12V70 AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	70.0AH	
Dimension	Length	348 ± 3mm (13.70 inches)
	Width	167 ± 2mm (6.57 inches)
	Container Height	178 ± 2mm (7.01 inches)
	Total Height (with Terminal)	178 ± 2mm (7.01 inches)
Approx Weight	Approx 23.7 Kg (52.2 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	75.0 AH/3.75A	(20hr, 1.80V/cell, 25°C/77°F)
	70.0 AH/7.00A	(10hr, 1.80V/cell, 25°C/77°F)
	64.0AH/12.8A	(5hr, 1.75V/cell, 25°C/77°F)
	57.6 AH/19.2A	(3hr, 1.75V/cell, 25°C/77°F)
	49.6 AH/49.6A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	840A (5s)	
Internal Resistance	Approx 6.6mΩ	
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 21.0A. 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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	103.6	89.8	70.6	63.1	47.3	38.3	26.4	17.5	13.7	11.7	10.1	7.89	6.78	3.62
1.80V/cell	117.6	101.8	79.8	68.7	55.0	42.9	28.8	18.9	14.6	12.5	10.9	8.30	7.00	3.75
1.75V/cell	127.5	110.2	86.2	70.1	57.1	44.9	29.9	19.2	15.0	12.8	11.2	8.58	7.19	3.84
1.70V/cell	135.9	117.0	91.4	71.5	59.4	46.3	31.1	19.8	15.4	13.2	11.4	8.94	7.46	3.94
1.65V/cell	140.2	120.4	93.9	72.6	60.9	47.9	32.0	20.6	15.9	13.5	11.7	9.25	7.67	4.06
1.60V/cell	145.1	124.2	96.3	73.7	63.5	49.6	33.0	21.2	16.4	14.0	11.9	9.41	7.83	4.13

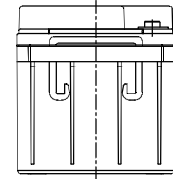
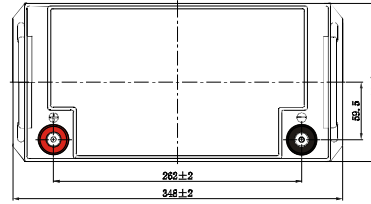
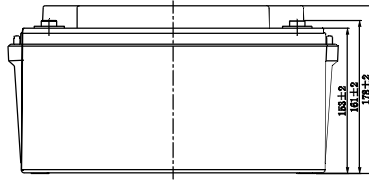
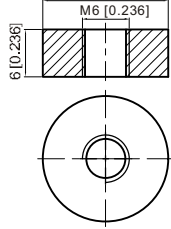
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	194.8	170.0	134.3	120.6	88.8	75.6	46.3	34.2	26.9	23.4	20.7	16.0	13.3	7.06
1.80V/cell	217.9	190.2	150.2	130.3	93.4	77.9	47.6	36.9	28.6	24.5	22.2	16.8	13.9	7.31
1.75V/cell	232.6	203.0	160.3	132.0	96.2	81.4	49.9	37.5	29.0	24.9	22.3	16.8	14.0	7.37
1.70V/cell	244.5	213.4	168.6	133.5	97.5	82.6	50.7	38.1	29.4	25.2	22.4	17.1	14.2	7.44
1.65V/cell	248.5	216.8	171.3	134.4	98.4	83.3	51.3	38.3	29.8	25.7	22.4	17.3	14.3	7.52
1.60V/cell	252.0	219.9	173.7	135.0	98.8	83.9	51.7	38.5	30.0	25.9	22.5	17.5	14.5	7.60

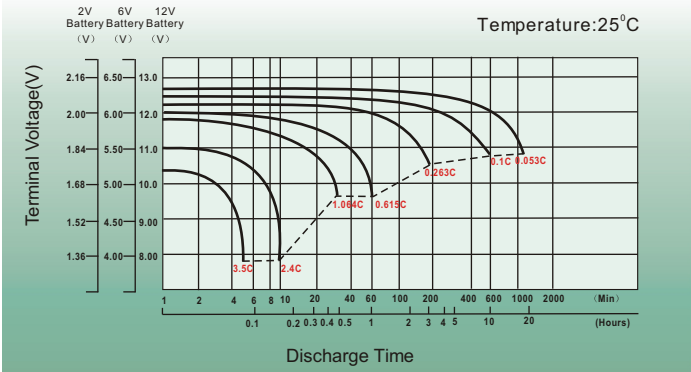
Dimensions

T6 Terminal

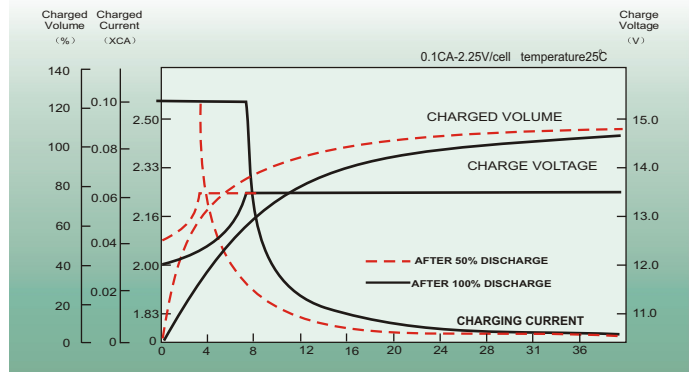
Unit: mm [inches]
± 0.16 [0.63]



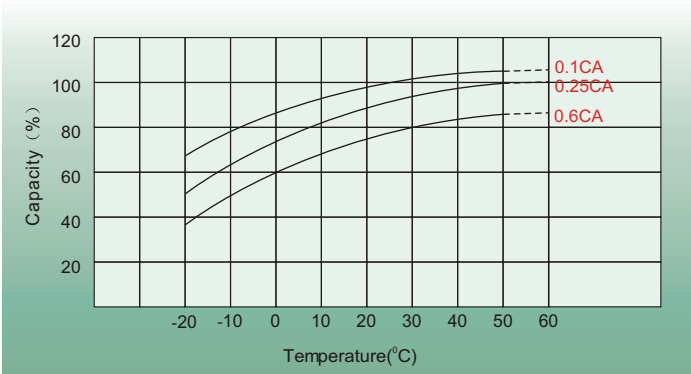
Discharge Characteristics



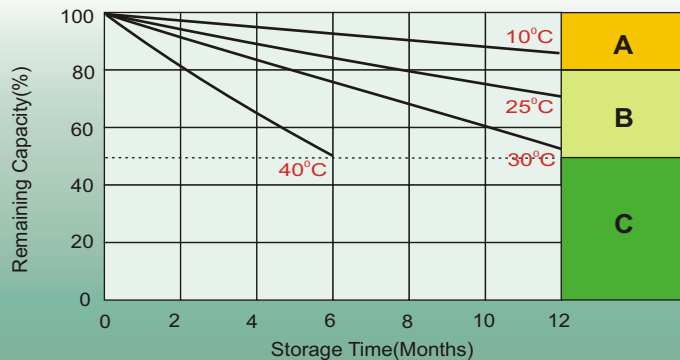
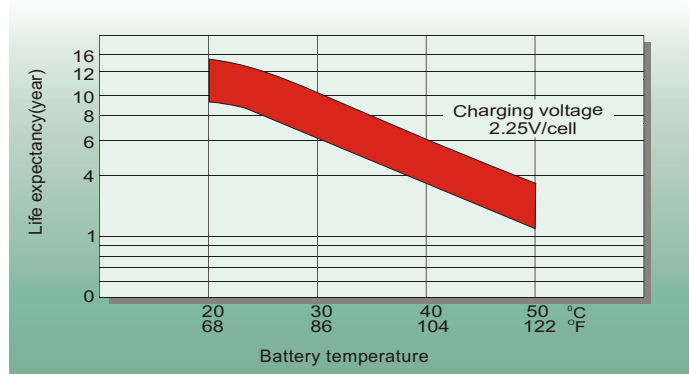
Float Charging Characteristics



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.