



# AL Series Long-Life Standby

## AL12-200s (12V200AH)

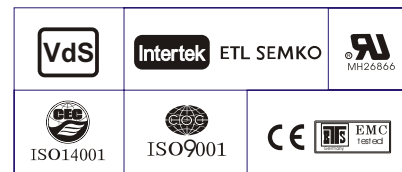
### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	200.0AH	
Dimension	Length	522±3mm (20.55 inches)
	Width	240±2mm (9.45 inches)
	Container Height	218±2mm (8.58 inches)
	Total Height (with Terminal)	224±2mm (8.81 inches)
Approx Weight	Approx 64.0 Kg (141.1 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	214.0 AH/10.7A	(20hr, 1.80V/cell, 25°C/77°F)
	200.0 AH/20.0A	(10hr, 1.80V/cell, 25°C/77°F)
	174.0 AH/34.8A	(5hr, 1.75V/cell, 25°C/77°F)
	156.0 AH/52.0A	(3hr, 1.75V/cell, 25°C/77°F)
	124.0 AH/124.0A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	2000A (5s)	
Internal Resistance	Approx 2.7mΩ	
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 60.0A. 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	Synergy AL 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	234.0	196.8	174.6	144.8	111.7	95.6	61.9	46.5	38.1	32.1	28.1	22.5	19.4	10.3
1.80V/cell	267.8	221.0	193.0	157.3	120.5	100.9	66.5	50.0	40.5	34.0	29.8	23.7	20.0	10.7
1.75V/cell	304.1	249.1	213.3	170.9	131.5	110.0	69.2	52.0	41.9	34.8	30.7	24.5	20.5	11.0
1.70V/cell	343.5	276.3	235.5	186.6	141.6	116.4	72.9	54.7	43.8	36.8	32.2	25.6	21.3	11.3
1.65V/cell	368.8	295.9	250.5	196.9	149.9	120.4	75.6	56.9	45.5	38.0	33.3	26.4	21.9	11.6
1.60V/cell	405.8	324.1	272.1	210.1	155.7	124.0	77.5	58.4	46.5	38.9	34.0	26.9	22.4	11.8

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

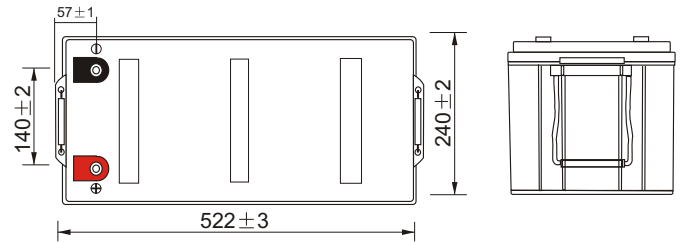
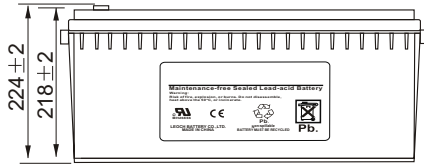
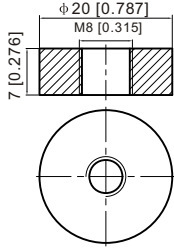
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	436.9	371.2	332.6	278.9	217.0	186.3	121.4	91.7	75.3	63.5	55.8	45.0	38.7	20.7
1.80V/cell	494.1	411.2	362.4	298.3	232.3	195.6	129.7	97.9	79.6	67.0	58.9	47.2	39.9	21.4
1.75V/cell	552.3	457.9	396.7	321.5	251.0	212.3	134.4	101.4	82.1	68.4	60.6	48.6	40.9	21.9
1.70V/cell	609.8	501.0	434.6	349.1	269.3	223.9	141.3	106.6	85.6	72.2	63.4	50.6	42.5	22.4
1.65V/cell	648.9	532.3	458.9	365.4	282.5	230.0	145.6	110.4	88.6	74.2	65.4	52.2	43.6	23.1
1.60V/cell	697.8	573.5	493.2	387.2	292.0	235.6	148.6	112.7	90.3	75.8	66.5	53.0	44.4	23.4



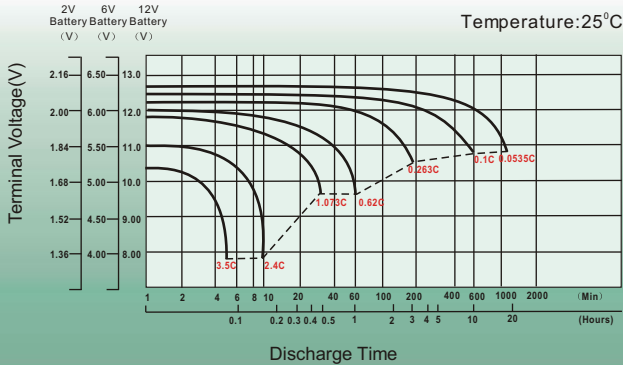
## Dimensions

### T11 Terminal

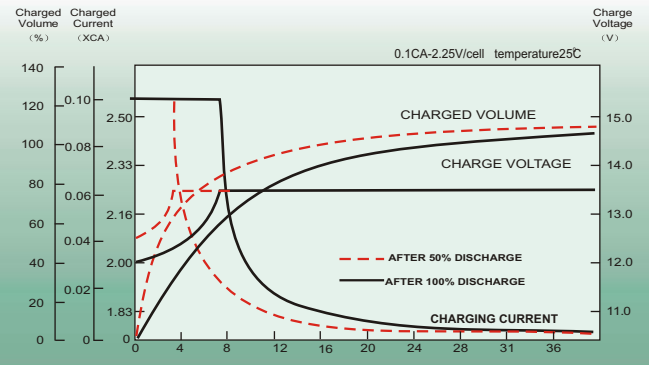
Unit: mm [inches]



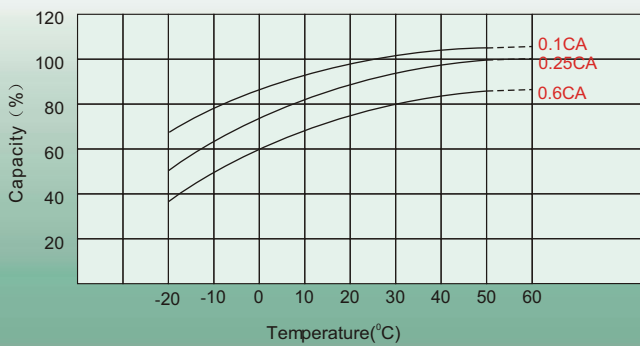
## Discharge Characteristics



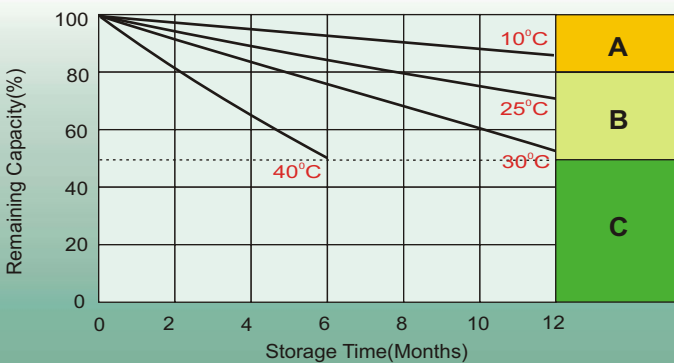
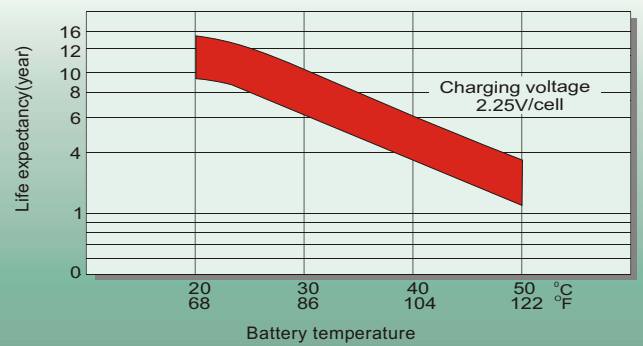
## Float Charging Characteristics



## 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 volatge 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25CA and constant volatge 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.

## Sales Office

Innovative Energies Ltd  
 1 Heremai Street, Auckland, New Zealand  
 Ph: +64 9 8350700  
 Email: info@innovative.co.nz  
[www.innovative.co.nz](http://www.innovative.co.nz)

