



# ULL SERIES-General Purpose

## ULL12-150 (12V150AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	150.0AH	
Dimensions	Length	483±3mm (19.0 inches)
	Width	170±2mm (6.69 inches)
	Container Height	238.5±3mm (9.39 inches)
	Total Height (with Terminal)	238.5±3mm (9.39 inches)
Approx Weight	Approx 43.5 kg	
Terminal	T11	
Container Material	ABS	
Rated Capacity	156.0 AH/7.80A	(20hr ,1.80V/cell,25°C/77°F)
	150.0 AH/15.0A	(10hr,1.80V/cell,25°C/77°F)
	129.0 AH/25.8A	(5hr,1.75V/cell,25°C/77°F)
	117.0 AH/39.0A	(3hr,1.75V/cell,25°C/77°F)
	91.5 AH/91.5A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	1500A (5s)	
Internal Resistance	Approx 3.5mΩ	
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) (10 YEARS OF LIFE)	
Cycle Use	Initial Charging Current less than 45.0A.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	ULL 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	256.7	201.8	171.6	143.6	114.1	86.4	70.7	45.0	35.6	29.1	23.5	20.4	16.6	14.2	7.73
1.80V/cell	344.6	257.9	207.4	169.7	134.6	100.4	79.2	49.2	38.3	31.1	25.2	21.9	17.6	15.0	7.80
1.75V/cell	388.5	283.4	226.5	182.6	139.8	104.2	82.9	51.0	39.0	31.8	25.8	22.5	17.9	15.1	7.88
1.70V/cell	427.9	308.9	241.8	191.9	145.5	108.4	85.5	53.0	40.1	32.6	26.5	23.0	18.1	15.3	8.03
1.65V/cell	471.8	333.3	257.2	203.8	153.5	111.1	88.4	54.5	41.8	33.7	27.2	23.5	18.4	15.6	8.13
1.60V/cell	\	361.9	275.0	217.1	162.0	115.8	91.5	56.3	43.1	34.8	28.1	24.0	18.6	15.8	8.18

### Constant Power Discharge (Watts/cell) 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	469.4	372.8	320.3	270.6	217.5	166.0	136.4	87.5	69.4	56.9	46.0	40.1	32.7	28.0	15.3
1.80V/cell	623.4	470.8	381.8	315.2	252.7	191.6	152.0	94.8	74.3	60.4	49.1	42.9	34.6	29.6	15.4
1.75V/cell	687.9	509.0	411.9	335.8	260.2	196.9	158.3	98.0	75.4	61.5	50.3	43.9	35.1	29.9	15.6
1.70V/cell	736.5	542.2	433.6	350.3	269.3	204.0	162.7	101.7	77.3	63.0	51.4	44.8	35.6	30.2	15.8
1.65V/cell	800.6	579.8	457.5	369.3	281.8	207.2	167.0	103.9	80.2	65.0	52.7	45.6	36.1	30.7	16.0
1.60V/cell	\	615.1	481.2	389.2	295.4	214.8	172.0	106.9	82.3	66.8	54.2	46.5	36.3	31.0	16.1

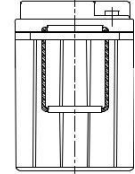
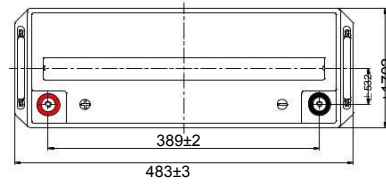
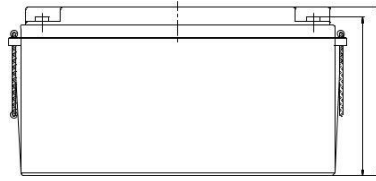
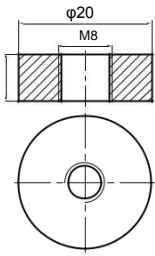
Specifications subject to change without notice.



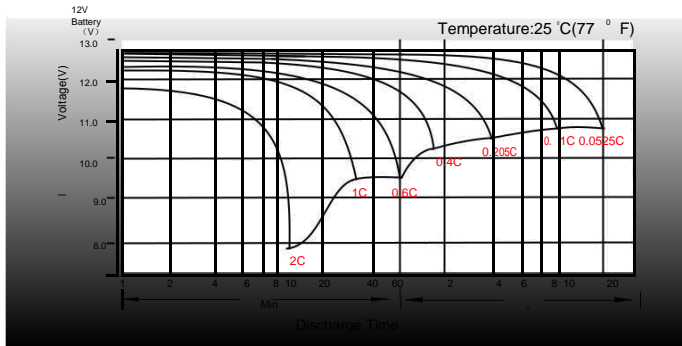
# Dimensions

## T11 Terminal

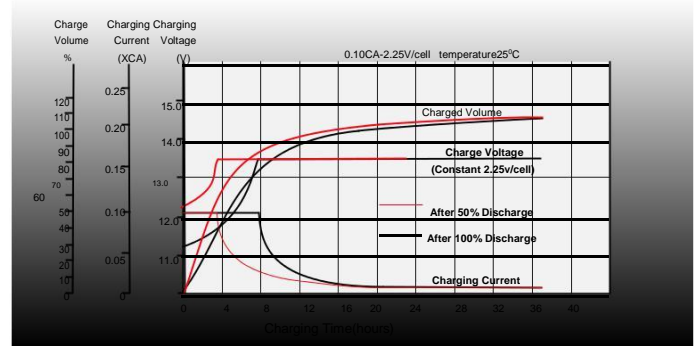
Unit: mm



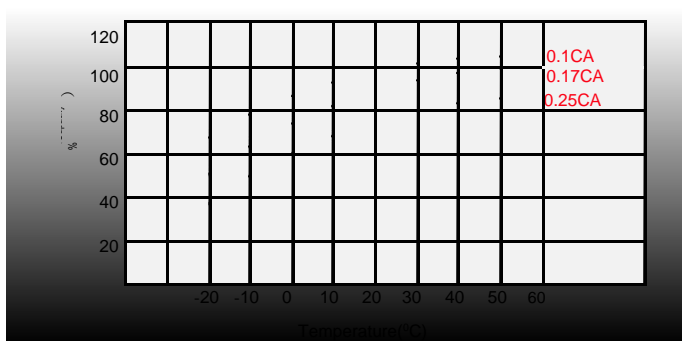
## Discharge Characteristics



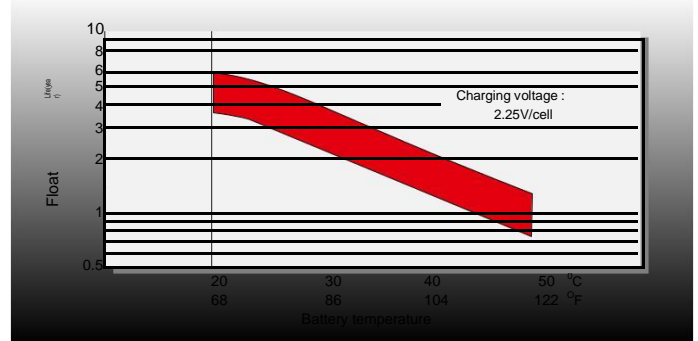
## Float Charging Characteristics



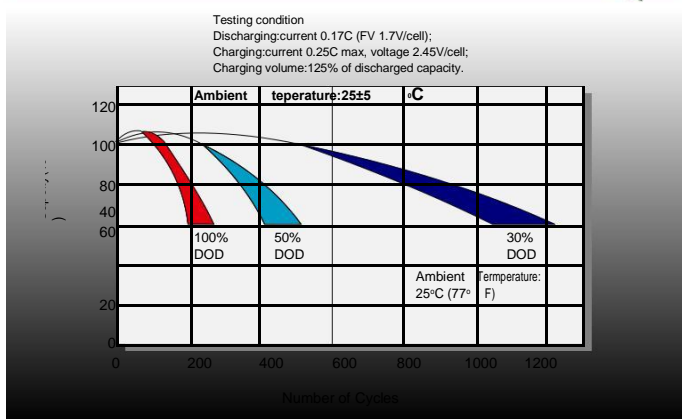
## Temperature Effects in Relation to Battery Capacity



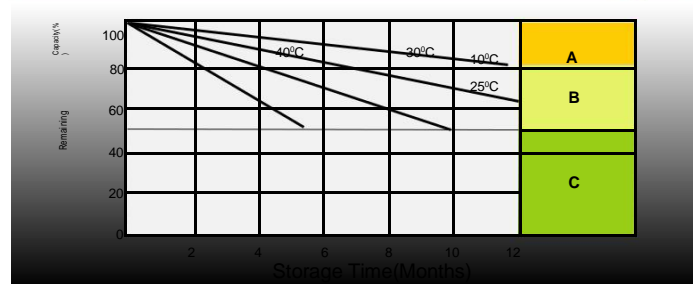
## Effect of Temperature on Long Term Float Life



## 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.)  
 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.
- B** 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.