

# LPL Series-Long Standby Life LPL12-55(12V59Ah)

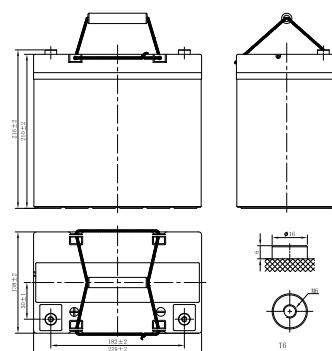


## Specifications

Rated Voltage	12V	
Nominal Capacity	(C <sub>20</sub> , 1.80V/cell)	59.0Ah
Dimension	Length	229±2mm (9.02 inches)
	Width	138±2mm (5.43 inches)
	Container Height	210±2mm (8.27 inches)
	Total Height	230±2mm (9.06 inches)
Approx Weight	17.7 Kg (39.03 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity (25°C)	59.0 Ah	(20hr, 2.95A, 1.80V/cell)
	55.0 Ah	(10hr, 5.50A, 1.80V/cell)
	51.0 Ah	(5hr, 10.2A, 1.75V/cell)
	46.5 Ah	(3hr, 15.5A, 1.75V/cell)
	35.8 Ah	(1hr, 35.8A, 1.60V/cell)
Max. Discharge Current	590A (5s)	
Internal Resistance (25°C)	Approx 9.0mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	-20 ~ 40°C (-4 ~ 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 17.7A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use	
Effect of temp. to Capacity	Initial Charging Current less than 17.7A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
	40°C (104°F)	103%
	25°C (77°F)	100%
Self Discharge	0°C (32°F)	86%
	LPL 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.	



## Layout



## 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	83.0	72.0	56.6	50.6	37.0	31.3	19.1	14.0	11.0	9.54	8.41	6.47	5.36	2.84
1.80V/cell	94.2	81.5	64.0	55.1	39.2	32.5	19.7	15.2	11.7	10.0	9.03	6.80	5.50	2.95
1.75V/cell	102.2	88.3	69.1	56.2	40.6	34.1	20.8	15.5	12.0	10.2	9.10	6.84	5.67	2.97
1.70V/cell	108.9	93.8	73.2	57.3	41.4	34.7	21.2	15.8	12.2	10.4	9.15	6.94	5.72	3.00
1.65V/cell	112.4	96.5	75.2	58.2	42.0	35.3	21.5	15.9	12.3	10.6	9.19	7.04	5.80	3.04
1.60V/cell	116.2	99.5	77.2	59.0	42.6	35.8	21.8	16.1	12.5	10.7	9.26	7.13	5.86	3.08

## 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	156.1	136.2	107.6	96.7	71.1	60.6	37.1	27.4	21.6	18.8	16.6	12.8	10.7	5.66
1.80V/cell	174.7	152.4	120.4	104.4	74.9	62.4	38.2	29.6	22.9	19.7	17.8	13.5	11.1	5.86
1.75V/cell	186.4	162.7	128.5	105.8	77.1	65.2	40.0	30.1	23.3	20.0	17.9	13.5	11.2	5.91
1.70V/cell	196.0	171.0	135.1	107.0	78.1	66.2	40.7	30.5	23.6	20.2	17.9	13.7	11.3	5.96
1.65V/cell	199.2	173.8	137.3	107.7	78.8	66.8	41.1	30.7	23.9	20.6	18.0	13.8	11.5	6.03
1.60V/cell	201.9	176.2	139.2	108.2	79.2	67.3	41.4	30.8	24.0	20.8	18.0	14.0	11.6	6.09

# LPL Series-Long Standby Life LPL12-55(12V59Ah)



## 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

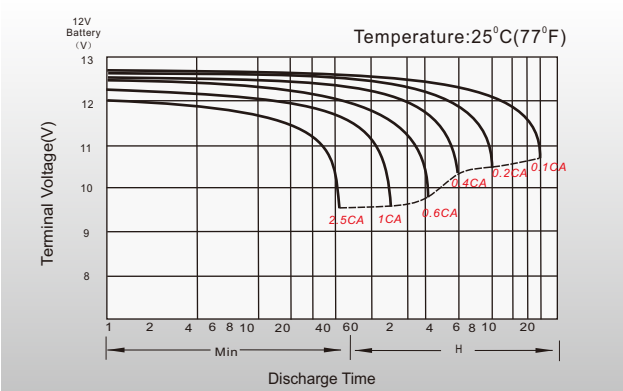
## General Features

- 12 years design life(25°C)
- Grid refining technology and the thicker plates are used to extend the battery standby life and reduce the plate grid corrosion speed
- Using oxygen recombination technology: maintenance-free
- Unique vent valve design: control water losing, prevent air and spark going inside

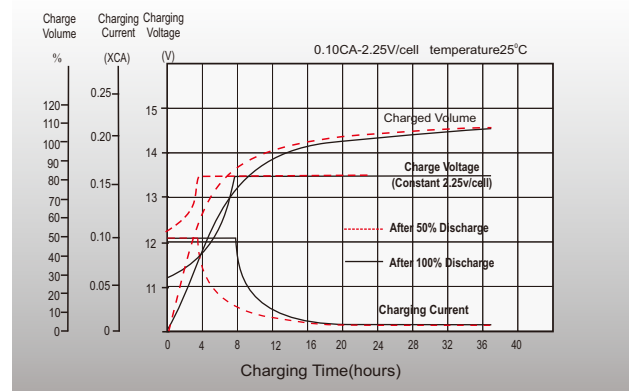
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive

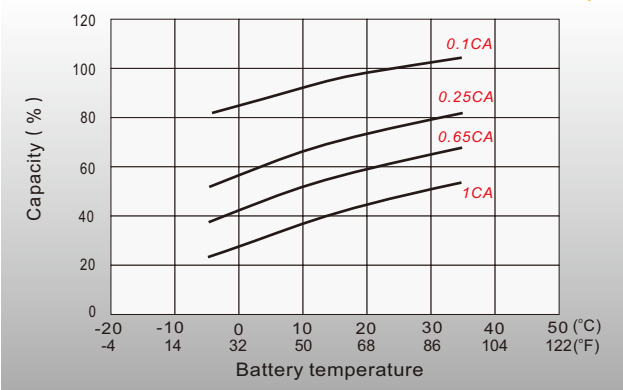
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

