

# LPL Series-Long Standby Life LPL12-75(12V78Ah)

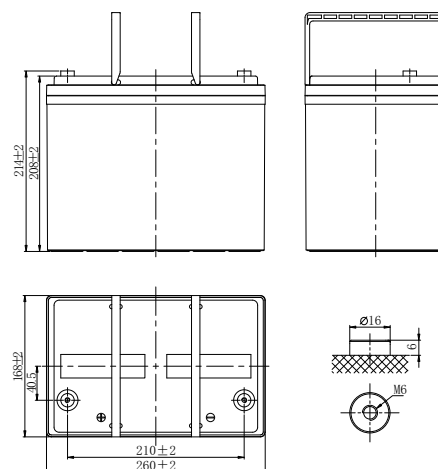


## Specifications

Rated Voltage	12V	
Nominal Capacity	(C <sub>20</sub> , 1.80V/cell)	78.0Ah
Dimension	Length	260±2mm (10.2 inches)
	Width	168±2mm (6.61 inches)
	Container Height	208±2mm (8.19 inches)
	Total Height	214±2mm (8.43 inches)
Approx Weight	22.7 Kg (50.05 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	78.0 Ah	(20hr, 3.90A, 1.80V/cell)
	75.0 Ah	(10hr, 7.50A, 1.80V/cell)
	67.5 Ah	(5hr, 13.5A, 1.75V/cell)
	61.5 Ah	(3hr, 20.5A, 1.75V/cell)
	47.3 Ah	(1hr, 47.3A, 1.60V/cell)
Max. Discharge Current	780A (5s)	
Internal Resistance (25°C)	Approx 7.5mΩ	
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 23.4A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Initial Charging Current less than 23.4A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	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	109.8	95.2	74.9	67.0	49.0	41.5	25.3	18.5	14.5	12.6	11.1	8.56	7.09	3.76
1.80V/cell	124.7	107.9	84.7	72.9	51.9	43.0	26.1	20.1	15.5	13.3	12.0	9.00	7.50	3.90
1.75V/cell	135.2	116.8	91.4	74.4	53.8	45.1	27.5	20.5	15.8	13.5	12.0	9.05	7.52	3.94
1.70V/cell	144.2	124.1	96.9	75.9	54.8	46.0	28.0	20.9	16.1	13.7	12.1	9.19	7.57	3.98
1.65V/cell	148.7	127.7	99.6	77.0	55.6	46.7	28.4	21.1	16.3	14.0	12.2	9.32	7.67	4.03
1.60V/cell	153.8	131.7	102.1	78.1	56.4	47.3	28.8	21.3	16.5	14.2	12.2	9.44	7.76	4.07

## 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	206.7	180.3	142.5	128.0	94.2	80.2	49.2	36.2	28.5	24.9	22.0	17.0	14.1	7.49
1.80V/cell	231.2	201.7	159.4	138.2	99.1	82.6	50.5	39.1	30.3	26.0	23.5	17.8	14.7	7.75
1.75V/cell	246.7	215.3	170.1	140.0	102.1	86.3	53.0	39.8	30.8	26.4	23.6	17.9	14.9	7.82
1.70V/cell	259.4	226.3	178.8	141.6	103.4	87.6	53.8	40.4	31.2	26.8	23.7	18.1	15.0	7.89
1.65V/cell	263.6	230.0	181.7	142.6	104.3	88.4	54.4	40.6	31.6	27.2	23.8	18.3	15.2	7.98
1.60V/cell	267.3	233.2	184.2	143.2	104.8	89.0	54.8	40.8	31.8	27.5	23.7	18.5	15.3	8.06

# LPL Series-Long Standby Life LPL12-75(12V78Ah)



## 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

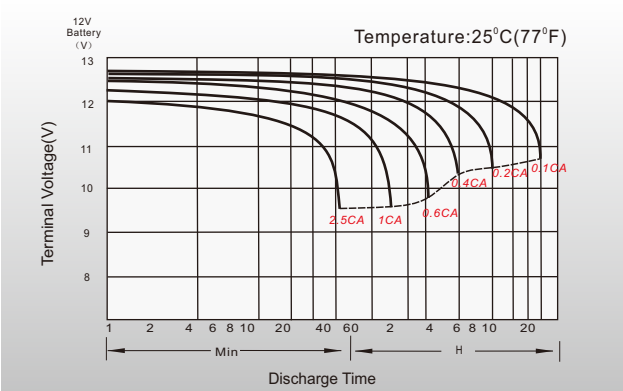
## General Features

- 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

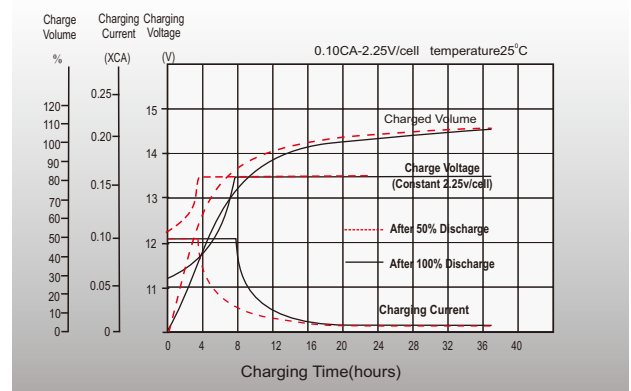
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive

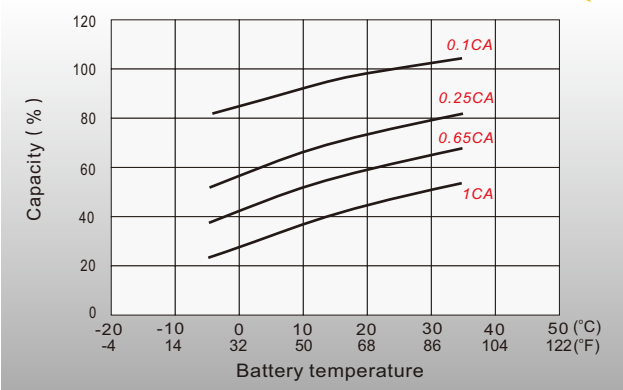
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

