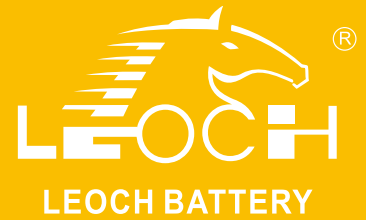




# LPL Series-Long Life Standby LPL12-45(12V45Ah)

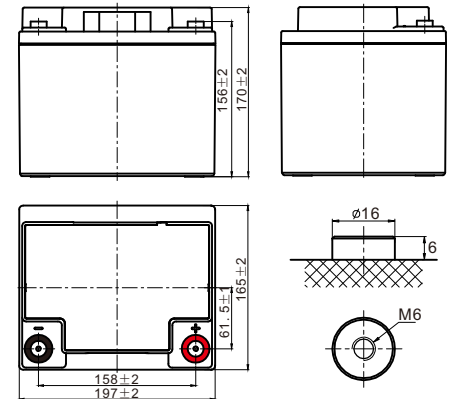


## Specifications

Rated Voltage	12V	
Nominal Capacity	45.0Ah	(C <sub>20</sub> , 1.80V/cell)
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
Approx Weight	14.5 Kg (31.97 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	45.0 Ah	(20hr, 2.25A, 1.80V/cell)
	42.0 Ah	(10hr, 4.20A, 1.80V/cell)
	36.6 Ah	(5hr, 7.31A, 1.75V/cell)
	32.7 Ah	(3hr, 10.9A, 1.75V/cell)
	26.0 Ah	(1hr, 26.0A, 1.60V/cell)
Max. Discharge Current	540A (5s)	
Internal Resistance (25°C)	Approx 9.0mΩ	
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 13.5A. 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 13.5A. 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	20min	30min	45min	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	59.2	40.3	36.1	26.4	20.1	13.0	9.77	8.01	6.74	5.90	4.73	4.07	2.17
1.80V/cell	67.2	45.6	39.3	28.0	21.2	14.0	10.5	8.51	7.14	6.25	4.98	4.20	2.25
1.75V/cell	72.8	49.2	40.1	29.0	23.1	14.5	10.9	8.80	7.31	6.45	5.15	4.31	2.30
1.70V/cell	77.7	52.2	40.9	29.5	24.4	15.3	11.5	9.20	7.73	6.76	5.37	4.48	2.36
1.65V/cell	80.1	53.6	41.5	30.0	25.3	15.9	12.0	9.56	7.97	6.99	5.55	4.60	2.44
1.60V/cell	82.9	55.0	42.1	30.4	26.0	16.3	12.3	9.77	8.17	7.14	5.64	4.70	2.48

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

F.V/Time	10min	20min	30min	45min	1H	2H	3H	4H	5H	6H	8H	10H	20H
1.85V/cell	113.6	78.3	70.3	51.7	39.1	25.5	19.2	15.8	13.3	11.7	9.44	8.14	4.34
1.80V/cell	127.0	87.6	75.9	54.5	41.1	27.2	20.6	16.7	14.1	12.4	9.91	8.38	4.49
1.75V/cell	135.6	93.5	76.9	56.1	44.6	28.2	21.3	17.2	14.4	12.7	10.2	8.60	4.60
1.70V/cell	142.5	98.2	77.8	56.8	47.0	29.7	22.4	18.0	15.2	13.3	10.6	8.92	4.71
1.65V/cell	144.8	99.8	78.3	57.3	48.3	30.6	23.2	18.6	15.6	13.7	11.0	9.16	4.85
1.60V/cell	146.9	101.2	78.7	57.6	49.5	31.2	23.7	19.0	15.9	14.0	11.1	9.33	4.92



# LPL Series-Long Life Standby LPL12-45(12V45Ah)



## 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

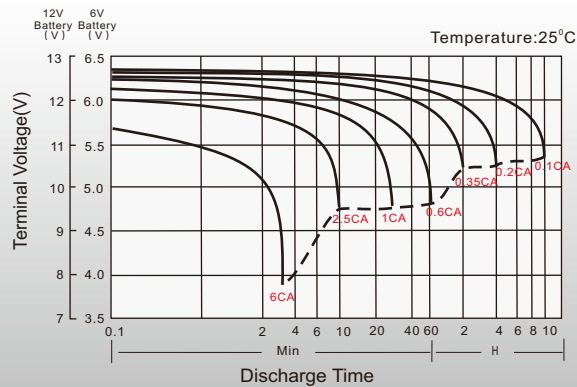
## General Features

- 10 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

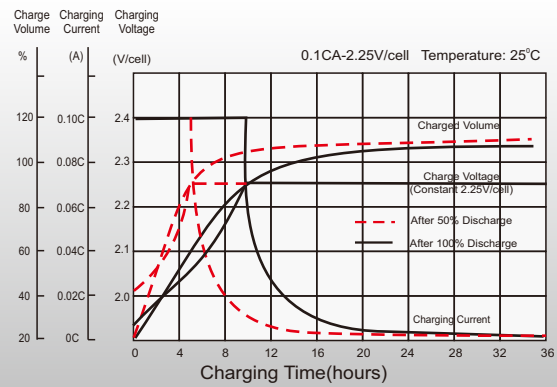
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch@IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

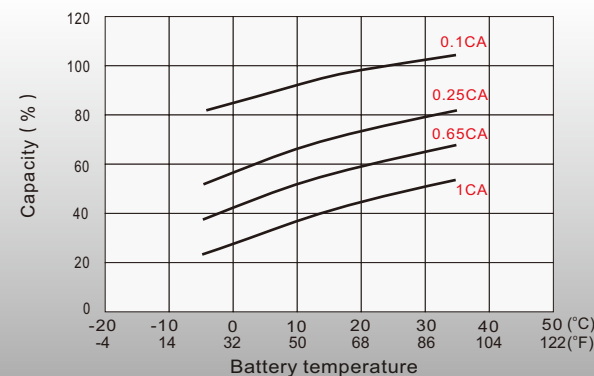
## Discharge Characteristics



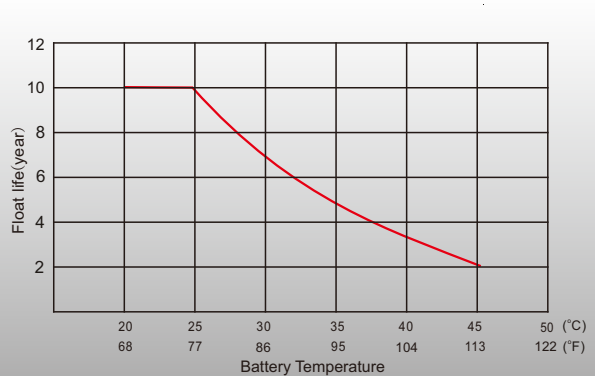
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Sales Offices Worldwide

### China Sales Office

5th Floor, Xinbaohui Bldg., Nanhai Blvd.,  
Nanshan, Shenzhen, China. 518052  
Tel: +86-755-86036060 (100 lines)  
Fax: +86-755-26067269  
E-mail: export@leoch.com

### HongKong Sales Office

Workshop C, 33/F, TML Tower, No. 3 Hoi Shing Road,  
Tsuen Wan, New Territories, Hong Kong  
Tel: +852 35786666  
Fax: +44 1452 690125  
E-mail: sales.hk@leoch.com

### Singapore Sales Office

No. 1 Tech Park Crescent,  
Singapore 638131  
Tel: +65 68636078  
Fax: +65 6863 6079  
Email: sales.sg@Leoch.com

### Australia Sales Office

2/29 Tarlington Place, Smithfield. NSW 2164  
Australia  
Tel: 02 9756 0950  
E-mail: sales.au@leoch.com

### North America Sales Office

19751 Descartes  
Foothill Ranch, CA 92610, USA  
Tel: 949-588-5853  
Fax: 949-588-5966  
E-mail: sales@leoch.us

### UK Sales Office

9B Wheatstone Court. Waterwells, Business Park,  
Gloucester, GL2-2AQ, UK United Kingdom  
Tel: +44(0) 1452 729428 / 1452 729696  
Fax: +44 1452 690125  
E-mail: Sales.Europe@leoch.com

### EMEA Sales Office

1 Deligiorgi St., 121 31 Athens,  
Greece  
Tel: +30 210 5760318 (2 lines)  
E-mail: support\_EMEA@leoch.com

### India Sales Office

Shed no.A-53(b), 2nd Stage of Peenya Industrial Area,  
Bangalore North Taluk, Bangalore-560058, India  
Tel: +91-80-23440018/23440019  
Fax: +91-80-23440017  
E-mail: indiasales@leoch.com



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