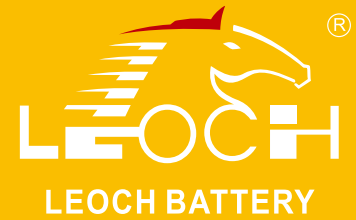


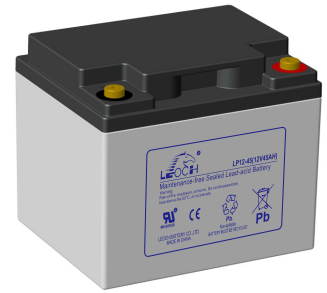


# LP Series-General Purpose LP12-45(12V45Ah)

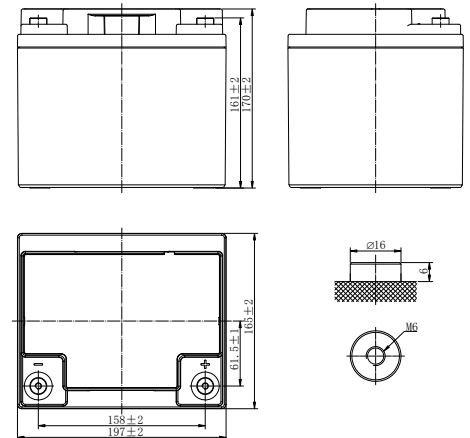


## Specifications

Rated Voltage	12V	
Nominal Capacity	45.0Ah	(C <sub>10</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	13.2kg (29.1 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	46.8 Ah	C20(2.34A, 1.80V/cell)
	45.0 Ah	C10(4.50A, 1.80V/cell)
	40.6 Ah	C5(8.11A, 1.75V/cell)
	39.6 Ah	C3(12.3A, 1.75V/cell)
	28.4 Ah	C1(28.4A, 1.60V/cell)
Max. Discharge Current	450A (5s)	
Internal Resistance (25°C)	≤ 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 13.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Initial Charging Current less than 13.5A. 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	LP 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)

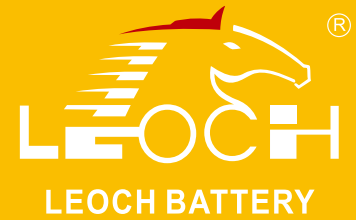
F. V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	63.3	54.9	43.2	40.2	32.6	24.9	15.2	11.1	8.73	7.57	5.96	5.13	4.25	2.26
1.80V/cell	71.9	62.2	48.8	43.7	34.8	25.8	15.7	12.1	9.32	7.97	6.27	5.40	4.50	2.34
1.75V/cell	78.0	67.4	52.7	44.6	35.9	27.1	16.5	12.3	9.49	8.11	6.34	5.43	4.52	2.36
1.70V/cell	83.1	71.6	55.9	45.5	36.6	27.6	16.8	12.5	9.66	8.24	6.44	5.51	4.54	2.39
1.65V/cell	85.8	73.6	57.4	46.2	37.1	28.0	17.1	12.7	9.81	8.41	6.55	5.59	4.60	2.42
1.60V/cell	88.7	75.9	58.9	46.9	37.7	28.4	17.3	12.8	9.92	8.53	6.64	5.66	4.66	2.44

## 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	119.2	104.0	82.1	76.8	62.5	48.1	29.5	21.7	17.1	14.9	11.8	10.2	8.46	4.49
1.80V/cell	133.3	116.3	91.9	82.9	66.3	49.6	30.3	23.5	18.2	15.6	12.4	10.7	8.85	4.65
1.75V/cell	142.3	124.1	98.1	84.0	67.9	51.8	31.8	23.9	18.5	15.8	12.4	10.7	8.92	4.69
1.70V/cell	149.6	130.5	103.1	84.9	68.8	52.6	32.3	24.2	18.7	16.1	12.5	10.6	9.01	4.73
1.65V/cell	152.0	132.6	104.8	85.5	69.3	53.0	32.6	24.4	19.0	16.3	12.8	11.0	9.11	4.79
1.60V/cell	154.1	134.5	106.2	85.9	69.7	53.4	32.9	24.5	19.1	16.5	12.9	11.1	9.20	4.84



# LP Series-General Purpose LP12-45(12V45Ah)



## Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

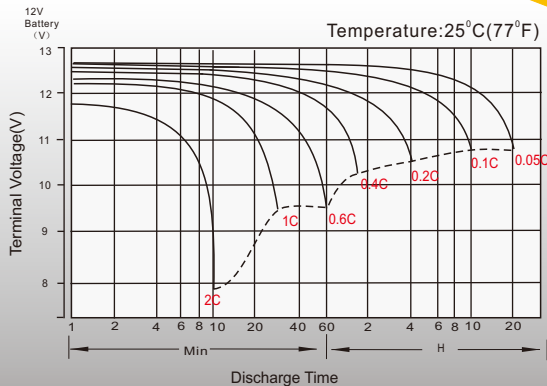
## General Features

- 10 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

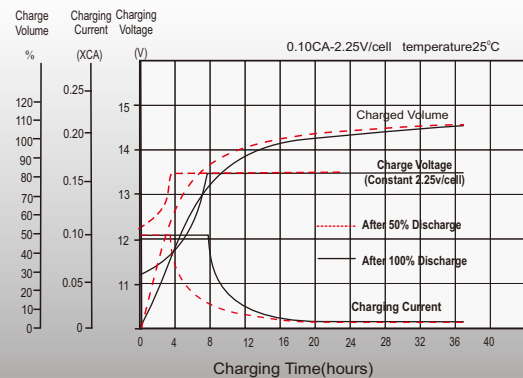
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch®IATF16949, ISO45001,ISO 9001 and ISO 14001 certified production facilities

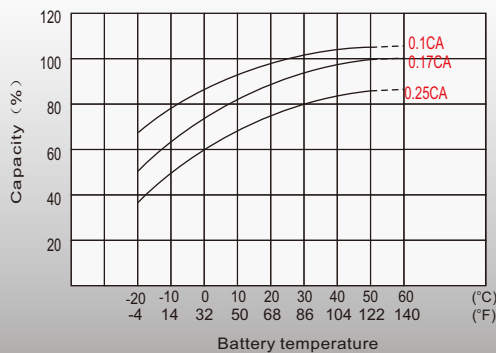
## Discharge Characteristics



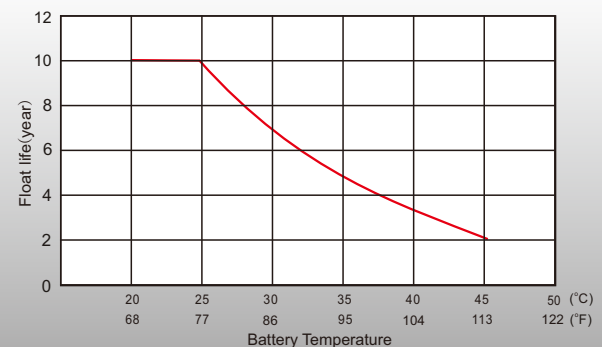
## Float Charging Characteristics



## 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)  
Tel: +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  
Tel: +44 1452 729428 / 1452 729696  
E-mail: sales.hk@leoch.com

### Singapore Sales Office

No. 1 Tech Park Crescent,  
Singapore 638131  
Tel: +65 68636078  
Tel: +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  
Tel: 949-588-5966  
E-mail: sales@leoch.us  
Http:// www.leoch.us

### UK Sales Office

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

### EMEA Sales Office

1 Deligiorgi St., 121 31 Athens,  
Greece  
Tel: +30 210 5760318 (2 lines)  
Tel: support\_EMEA@leoch.com  
Http:// www.leoch.eu

### 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  
Tel: +91-80-23440017  
E-mail: indiasales@leoch.com



[Http://www.leoch.com](http://www.leoch.com)

© 2022 LEOCH. All rights reserved.

Trademarks and logos are the property of LEOCH and its affiliates unless otherwise noted.  
Subject to revisions without prior notice.

Publication No.: LB-LP12-45-PD-DZ-V1.0-202202