Reliable Power Solutions

LOP SERIES-Outside Plant Purpose

LOP12-88FR (12V, 90AH)

Specification

Nominal Voltage	12V
Nominal Capacity(8HR)	88.0AH
Dimensions	Length 306±3mm (12.05 inches) Width 168±2mm (6.61 inches) Container Height 208±3mm (8.19 inches) Total Height (with Terminal) 230±3mm (9.06 inches)
Approx Weight	Approx 27.3 Kg (60.19 lbs)
Terminal	T6 (Term Insert for M6 bolt)
Container Material	ABS Flame Retardant Jars to UL94 V-0 Standard
Rated Capacity	96.4 AH/4.82A (20hr ,1.80V/cell,25°C/77°F) 88.8 AH/8.88A (10hr,1.80V/cell,25°C/77°F) 88.0 AH/11.0A (8hr,1.75V/cell,25°C/77°F) 70.2 AH/23.4A (3hr,1.75V/cell,25°C/77°F) 55.8 AH/55.8A (1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	1080A (5s)
Internal Resistance	Approx 5.0mΩ
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)
Standby (Float) Use	No limit on Initial Charging Current. 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Cycle Use	Initial Charging Current less than 27.0A. 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Capacity affected by Temperature	40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86%
Self Discharge	Leoch LOP 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.

NEBS Level III Certified

Applications

- *Telecommunication Power supply, DC power supply*
- *Power system communication, military communication, etc.*
- *Network communication including: data transmission, television signal transmission, etc.*
- *Uninterruptable Power System (Long duration UPS for Telecom & Utility)*

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	105.3	88.6	78.6	65.2	50.3	43.0	27.9	20.9	17.2	14.4	12.6	9.98	8.62	4.60
1.80V/cell	120.5	99.4	86.9	70.8	54.2	45.4	29.9	22.5	18.2	15.3	13.4	10.56	8.88	4.82
1.75V/cell	136.8	112.1	96.0	76.9	59.2	49.5	31.1	23.4	18.9	15.7	13.8	11.00	9.14	4.94
1.70V/cell	154.6	124.4	106.0	84.0	63.7	52.4	32.8	24.6	19.7	16.6	14.5	11.30	9.50	4.99
1.65V/cell	166.0	133.1	112.7	88.6	67.4	54.2	34.0	25.6	20.5	17.1	15.0	11.77	9.77	5.15
1.60V/cell	182.6	145.8	122.5	94.5	70.1	55.8	34.9	26.3	20.9	17.5	15.3	11.95	9.98	5.22

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

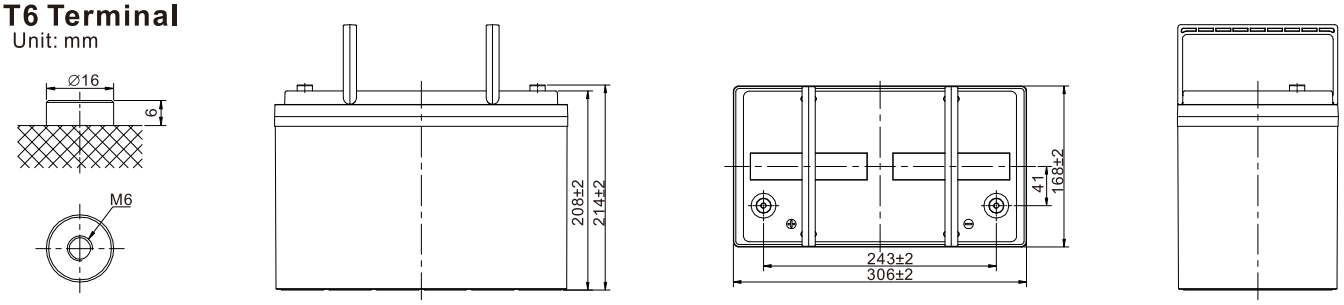
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	196.6	167.0	149.7	125.5	97.7	83.8	54.7	41.2	33.9	28.6	25.1	19.96	17.21	9.22
1.80V/cell	222.4	185.1	163.1	134.2	104.5	88.0	58.4	44.1	35.8	30.2	26.5	20.94	17.79	9.52
1.75V/cell	248.5	206.0	178.5	144.7	112.9	95.5	60.5	45.6	36.9	30.8	27.2	21.66	18.18	9.73
1.70V/cell	274.4	225.4	195.6	157.1	121.2	100.8	63.6	48.0	38.5	32.5	28.5	22.50	18.85	9.95
1.65V/cell	292.0	239.5	206.5	164.4	127.1	103.5	65.5	49.7	39.9	33.4	29.4	23.22	19.38	10.25
1.60V/cell	314.0	258.1	221.9	174.3	131.4	106.0	66.9	50.7	40.7	34.1	29.9	23.59	19.77	10.47

Specifications subject to change without notice.

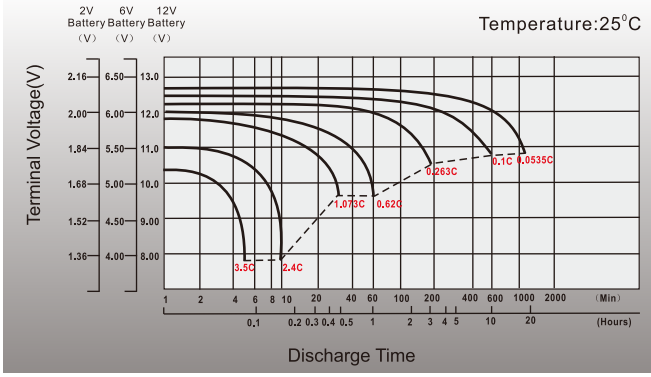
Dimensions

T6 Terminal

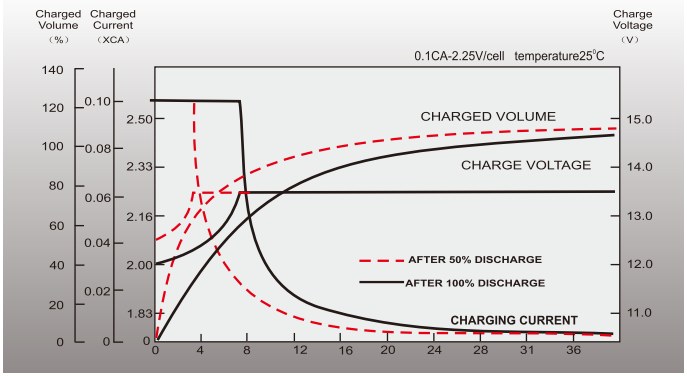
Unit: mm



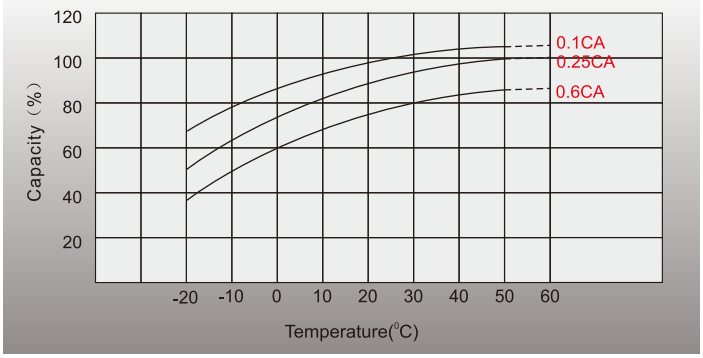
Discharge Characteristics



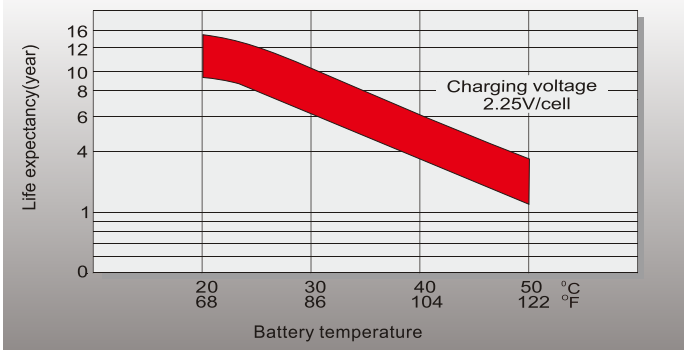
Float Charging Characteristics

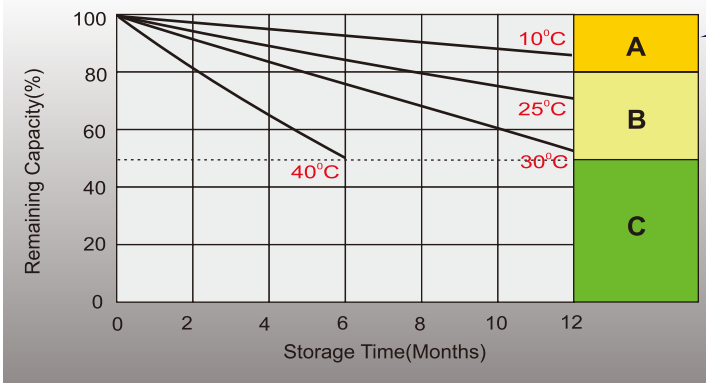


Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life





Self Discharge Characteristics

A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

B Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA.

C Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

Sales Office

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
Http://www.leoch.com

North America sales office:
19751 Descartes, Unit A,
Foothill Ranch, CA 92610, USA
Tel: 949-588-5853
Fax: 949-588-5966
E-mail: sales@leoch.us
Http://www.leoch.us

Europe sales office:
9B Wheatstone Court. Waterwells
Business Park, Gloucester, GL2-2AQ,
UK United Kingdom
Tel: +44(0) 1452 729428 / 1452 729696
Fax: +44 (0)1452-690125
E-mail: Sales.Europe@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: +852 21170016
E-mail: sales.hk@leoch.com

Singapore sales office:
No. 1 Tech Park Crescent,
Singapore 638131
Tel: +65 68636078
Fax: +65 68636079
Email sales.sg@Leoch.com
Http://www.leoch.com

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