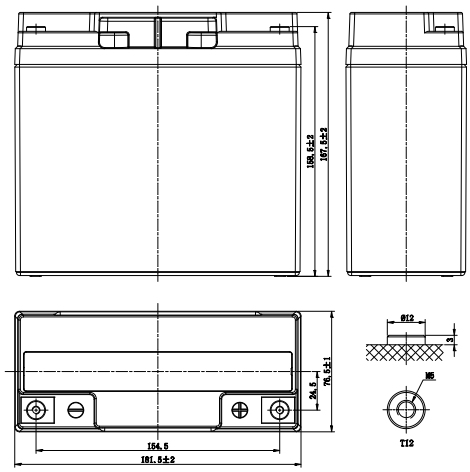
LP SERIES-GENERAL PURPOSE

LP12-18 (12V18Ah)

LEOCH BATTERY





CHARACTERISTICS

Item		Specifications
Rated Voltage		12V
Nominal Capacity (25℃)	C_{20},1.75V/cell	18Ah
Dimension	Length	181.5mm(7.15inches)
	Width	76.5mm(3.01inches)
	Container Height	167.5mm(6.59inches)
	Total Height	167.5mm(6.59inches)
Approx Weight		4.85kg(10.7lbs)
Terminal		T12(M5)
Container Material		ABS (UL94 HB or V-0 optional)
Short-circuit current		504A
Internal Resistance (25℃)		Approx 20 mΩ (Fully charged)
Operating Temp. Range	Discharge	-15~50℃ (5~122°F)
	Charge	-20~40℃ (-4~104°F)
	Storage	-15~40℃ (5~104°F)
Nominal Operating Temp. Range		25±3℃ (77±5°F)
Max.Charging Current (25℃)		0.3C
Charge voltage (25℃)	Standby Use	Cycle Use
	2.25-2.30V/cell	2.35-2.45V/cell
Temp. Coeffcient	-3mV/cell/℃	-5mV/cell/℃
Effect of temp. to Capacity	40℃ (104°F)	103%
	25℃ (77°F)	100%
	0℃ (32°F)	86%
Self Discharge	≤3% per month at 25°C (77°F). LP series batteries may be stored 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.	

DISCHARGE TABLE

Constant Current Discharge (Amperes) at 25°C (77°F)																
F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	49.9	34.4	27.0	21.9	16.2	11.8	9.51	7.20	5.84	4.35	3.40	2.94	2.53	2.01	1.66	0.880
1.80V/cell	53.7	36.5	28.3	22.8	16.7	12.1	9.74	7.35	5.96	4.43	3.45	2.99	2.57	2.04	1.68	0.890
1.75V/cell	56.6	37.9	29.3	23.4	17.1	12.3	9.94	7.49	6.06	4.50	3.49	3.02	2.60	2.07	1.70	0.900
1.70V/cell	59.2	39.5	30.2	24.1	17.6	12.6	10.1	7.61	6.15	4.56	3.54	3.07	2.63	2.09	1.72	0.907
1.67V/cell	61.3	40.6	30.9	24.6	17.9	12.8	10.3	7.71	6.22	4.60	3.57	3.09	2.66	2.10	1.73	0.914
1.60V/cell	65.0	42.3	32.0	25.3	18.3	13.1	10.5	7.88	6.34	4.70	3.64	3.14	2.69	2.13	1.75	0.924
Constant Power Discharge (Watts/cell) at 25°C (77°F)																
F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	93.8	64.7	50.6	42.2	31.3	22.8	18.5	14.1	11.5	8.56	6.69	5.81	5.01	3.99	3.30	1.76
1.80V/cell	99.9	68.1	52.8	43.7	32.1	23.3	18.9	14.3	11.7	8.69	6.77	5.89	5.08	4.05	3.34	1.78
1.75V/cell	104.1	70.3	54.3	44.6	32.8	23.8	19.2	14.6	11.8	8.80	6.86	5.96	5.13	4.09	3.37	1.80
1.70V/cell	107.9	72.6	55.7	45.6	33.4	24.2	19.5	14.8	12.0	8.92	6.94	6.03	5.19	4.13	3.41	1.82
1.67V/cell	110.7	74.3	56.9	46.5	34.0	24.5	19.8	14.9	12.1	8.99	7.00	6.07	5.23	4.16	3.43	1.83
1.60V/cell	115.2	76.5	58.4	47.6	34.8	24.9	20.1	15.2	12.3	9.14	7.10	6.15	5.29	4.21	3.47	1.85

LP SERIES-GENERAL PURPOSE

LP12-18 (12V18Ah)

LEOCH BATTERY

APPLICATIONS

- 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

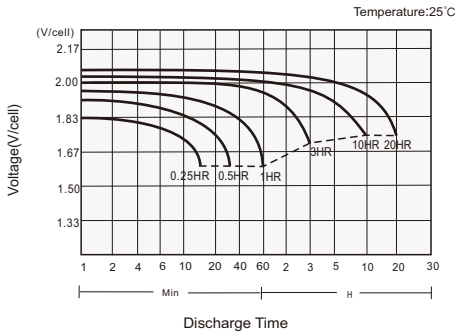
GENERAL FEATURES

- 5 years design life (25℃)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Unique technology optimizes power capacity, cell consistency, and long-term reliability
- Designed for a wide range of applications

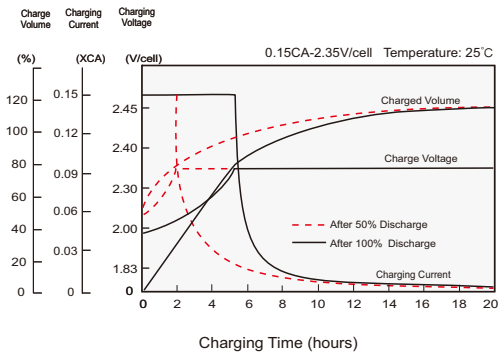
STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL,CE Approved
- Manufactured in Leoch®IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

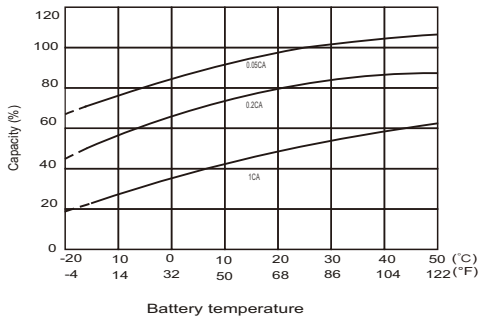
Discharge Characteristics



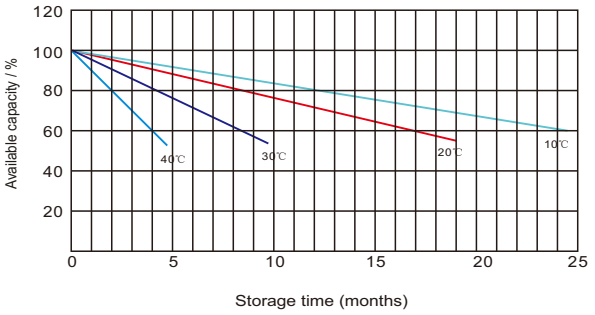
Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics



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Publication No.:LB-LP12-18-PD-EN-V4.0-20250610