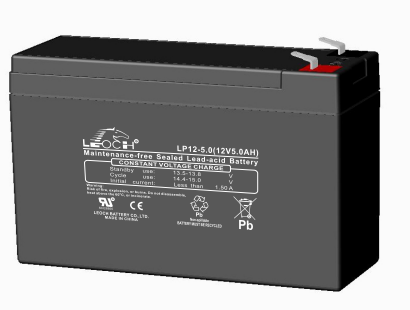
LP Series-General Purpose
LP12-5.0(12V5.0Ah)

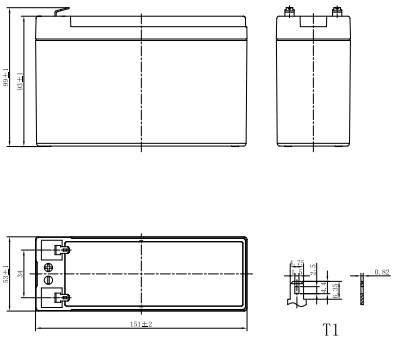
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	5.0Ah	(C_{20},1.75V/cell)
Dimension	Length Width Container Height Total Height	151±2mm (5.94 inches) 53±1mm (2.09 inches) 93±1mm (3.66 inches) 99±1mm (3.90 inches)
Approx Weight		1.73 Kg (3.81 lbs)
Terminal		T1/T2
Container Material		ABS
Rated Capacity (25°C)	5.00 Ah 4.73 Ah 4.32 Ah 3.84 Ah 3.29 Ah	(20hr,0.250A,1.75V/cell) (10hr,0.473A,1.75V/cell) (5hr,0.861A,1.75V/cell) (3hr,1.28A,1.75V/cell) (1hr,3.29A,1.60V/cell)
Max. Discharge Current		75A (5s)
Internal Resistance (25°C)		Approx 35mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 1.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 1.5A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	16.4	10.9	8.33	6.75	4.97	3.63	2.97	2.18	1.71	1.24	0.984	0.838	0.717	0.565	0.462	0.244
1.80V/cell	17.6	11.6	8.74	7.02	5.12	3.73	3.05	2.22	1.74	1.26	1.00	0.850	0.729	0.573	0.468	0.247
1.75V/cell	18.5	12.1	9.03	7.21	5.25	3.81	3.11	2.26	1.77	1.28	1.01	0.861	0.737	0.579	0.473	0.250
1.70V/cell	19.4	12.5	9.33	7.42	5.39	3.89	3.17	2.30	1.80	1.29	1.03	0.872	0.746	0.585	0.478	0.252
1.67V/cell	20.1	12.9	9.56	7.57	5.48	3.96	3.21	2.33	1.82	1.31	1.04	0.880	0.752	0.590	0.481	0.254
1.60V/cell	21.3	13.4	9.89	7.80	5.63	4.06	3.29	2.38	1.86	1.33	1.05	0.894	0.763	0.598	0.487	0.257

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	30.9	20.8	15.9	13.0	9.60	7.04	5.78	4.25	3.35	2.43	1.94	1.65	1.42	1.12	0.918	0.489
1.80V/cell	33.0	21.9	16.6	13.4	9.85	7.21	5.91	4.33	3.41	2.46	1.96	1.68	1.44	1.14	0.930	0.495
1.75V/cell	34.3	22.6	17.1	13.7	10.1	7.33	6.00	4.40	3.46	2.50	1.99	1.69	1.45	1.15	0.938	0.500
1.70V/cell	35.6	23.4	17.5	14.1	10.3	7.47	6.10	4.46	3.50	2.53	2.01	1.72	1.47	1.16	0.947	0.504
1.67V/cell	36.5	23.9	17.9	14.3	10.4	7.57	6.18	4.51	3.53	2.55	2.03	1.73	1.48	1.17	0.954	0.508
1.60V/cell	38.0	24.6	18.4	14.7	10.7	7.71	6.29	4.58	3.59	2.59	2.06	1.75	1.50	1.18	0.965	0.514

LP Series-General Purpose
LP12-5.0(12V5.0Ah)

LEOCH BATTERY

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

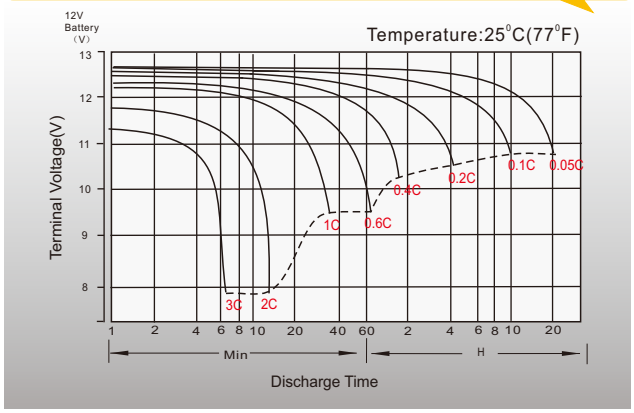
General Features

- 5 years design life(25℃)
- 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

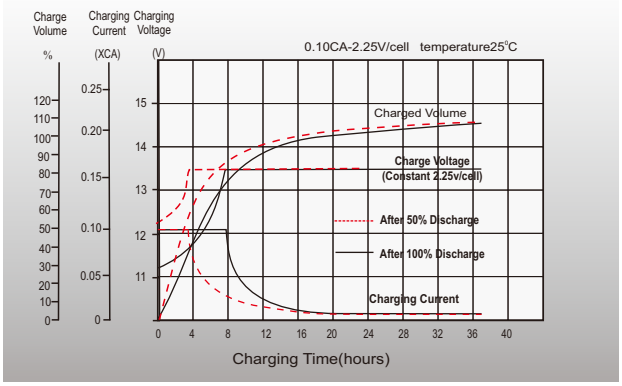
Standards

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

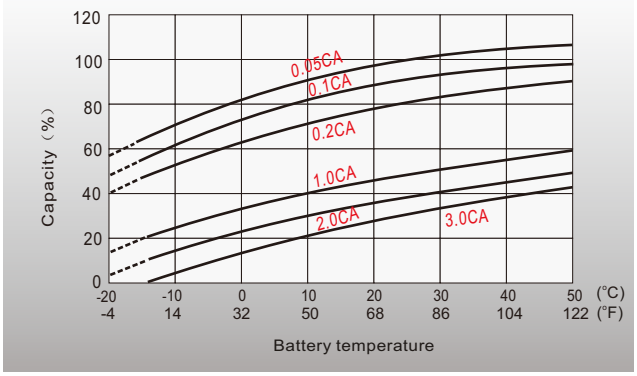
Discharge Characteristics



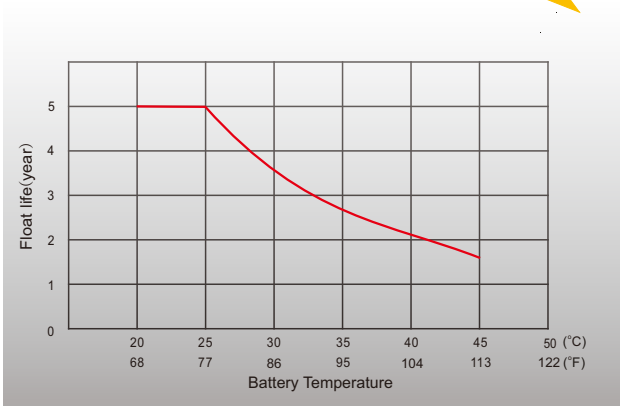
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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LP Series-General Purpose
LP12-7.0(12V7.0Ah)

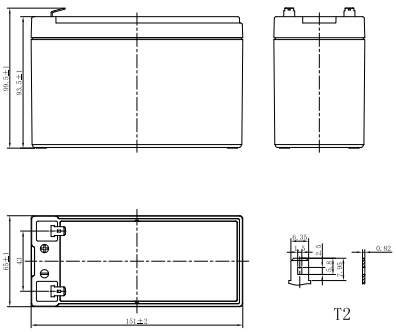
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	7.0Ah	(C_{20},1.80V/cell)
Dimension	Length Width Container Height Total Height	151±2mm (5.95 inches) 65±1mm (2.56 inches) 93.5±1mm (3.68 inches) 99.5±1mm (3.92 inches)
Approx Weight		1.97 Kg (4.34 lbs)
Terminal		T1/T2
Container Material		ABS
Rated Capacity (25°C)	7.00 Ah 6.53 Ah 5.85 Ah 5.30 Ah 4.27 Ah	(20hr,0.350A,1.75V/cell) (10hr,0.653A,1.75V/cell) (5hr,1.19A,1.75V/cell) (3hr,1.77A,1.75V/cell) (1hr,4.27A,1.60V/cell)
Max. Discharge Current		105A (5s)
Internal Resistance (25°C)		Approx 33mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 2.1A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 2.1A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.0	12.5	9.90	8.10	6.12	4.64	3.91	2.90	2.38	1.72	1.36	1.16	0.99	0.780	0.637	0.343
1.80V/cell	18.5	13.2	10.3	8.35	6.28	4.73	3.99	2.95	2.41	1.74	1.38	1.18	1.01	0.790	0.644	0.347
1.75V/cell	19.9	13.8	10.7	8.60	6.43	4.83	4.06	3.00	2.45	1.77	1.40	1.19	1.02	0.800	0.653	0.350
1.70V/cell	21.4	14.4	11.1	8.86	6.57	4.92	4.13	3.05	2.49	1.79	1.42	1.21	1.03	0.809	0.660	0.354
1.67V/cell	22.3	14.8	11.3	9.01	6.67	4.98	4.17	3.08	2.51	1.81	1.43	1.22	1.04	0.816	0.665	0.356
1.60V/cell	24.3	15.7	11.8	9.40	6.87	5.11	4.27	3.14	2.56	1.84	1.46	1.24	1.06	0.829	0.675	0.361

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	32.3	23.9	19.1	15.6	11.8	9.01	7.61	5.67	4.65	3.37	2.69	2.29	1.96	1.55	1.27	0.686
1.80V/cell	34.8	25.0	19.7	16.0	12.1	9.15	7.73	5.74	4.71	3.42	2.72	2.32	1.99	1.57	1.28	0.693
1.75V/cell	37.4	26.1	20.3	16.4	12.3	9.30	7.84	5.82	4.77	3.46	2.76	2.35	2.01	1.58	1.29	0.700
1.70V/cell	39.9	27.2	20.9	16.8	12.5	9.40	7.95	5.90	4.84	3.50	2.79	2.37	2.03	1.60	1.31	0.707
1.67V/cell	41.4	27.8	21.3	17.1	12.7	9.50	8.02	5.95	4.87	3.53	2.81	2.39	2.05	1.61	1.32	0.712
1.60V/cell	44.7	29.2	22.1	17.6	13.0	9.70	8.17	6.05	4.95	3.59	2.85	2.43	2.08	1.64	1.34	0.722

LP Series-General Purpose
LP12-7.0(12V7.0Ah)

LEOCH BATTERY

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

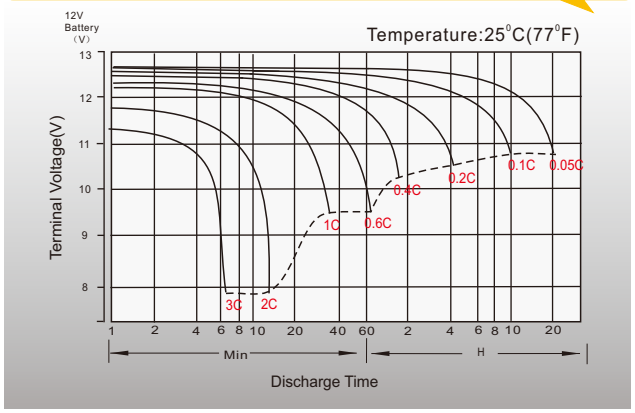
General Features

- 5 years design life(25℃)
- 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

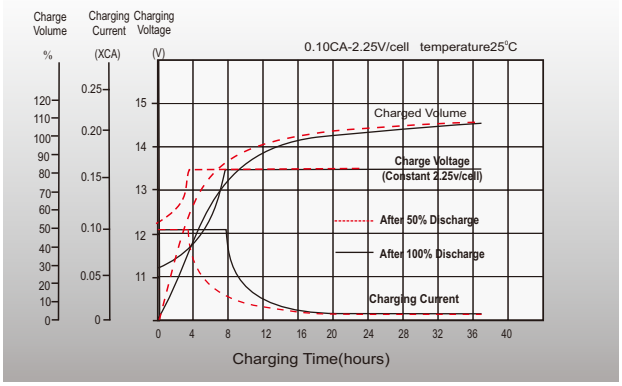
Standards

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

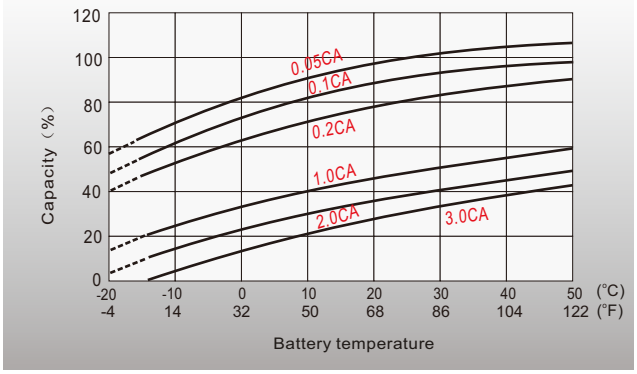
Discharge Characteristics



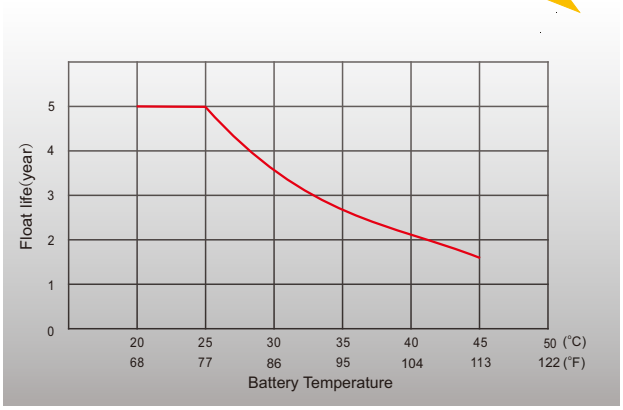
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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Http://www.leoch.com

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LP Series-General Purpose
LP12-9.0(12V9.0Ah)

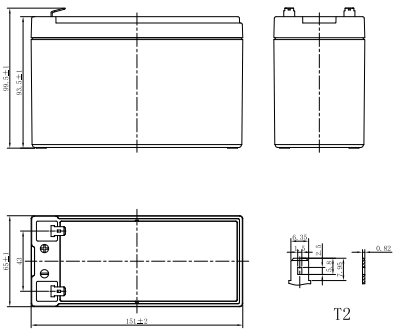
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	9.0Ah	(C_{20},1.75V/cell)
Dimension	Length Width Container Height Total Height	151±2mm (5.95 inches) 65±1mm (2.56 inches) 93.5±1mm (3.68 inches) 99.5±1mm (3.92 inches)
Approx Weight		2.60 Kg (5.73 lbs)
Terminal		T1/T2
Container Material		ABS
Rated Capacity (25°C)	9.00 Ah 8.51 Ah 7.75 Ah 6.90 Ah 5.98 Ah	(20hr,0.450A,1.75V/cell) (10hr,0.851A,1.75V/cell) (5hr,1.55A,1.75V/cell) (3hr,2.30A,1.75V/cell) (1hr,5.98A,1.60V/cell)
Max. Discharge Current		135A (5s)
Internal Resistance (25°C)		Approx 17mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 2.70A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 2.70A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	30.2	20.7	16.1	12.9	9.34	6.72	5.41	3.92	3.08	2.22	1.77	1.51	1.29	1.02	0.832	0.440
1.80V/cell	32.4	21.9	16.9	13.4	9.63	6.90	5.54	4.00	3.14	2.26	1.80	1.53	1.31	1.03	0.843	0.445
1.75V/cell	34.2	22.8	17.4	13.8	9.88	7.05	5.66	4.08	3.19	2.30	1.82	1.55	1.33	1.04	0.851	0.450
1.70V/cell	35.8	23.7	18.0	14.2	10.1	7.21	5.76	4.15	3.24	2.33	1.85	1.57	1.34	1.05	0.860	0.454
1.67V/cell	37.0	24.4	18.5	14.5	10.3	7.32	5.85	4.20	3.28	2.35	1.86	1.58	1.35	1.06	0.866	0.457
1.60V/cell	39.3	25.4	19.1	14.9	10.6	7.50	5.98	4.29	3.34	2.40	1.90	1.61	1.37	1.08	0.877	0.462

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	57.1	39.4	30.8	24.8	18.1	13.0	10.5	7.66	6.03	4.37	3.49	2.98	2.55	2.02	1.65	0.880
1.80V/cell	60.8	41.4	32.1	25.7	18.5	13.3	10.8	7.79	6.13	4.43	3.53	3.02	2.59	2.04	1.67	0.890
1.75V/cell	63.3	42.8	33.0	26.2	18.9	13.6	10.9	7.91	6.22	4.49	3.58	3.05	2.62	2.06	1.69	0.900
1.70V/cell	65.7	44.2	33.9	26.9	19.3	13.8	11.1	8.03	6.30	4.55	3.62	3.09	2.64	2.08	1.71	0.907
1.67V/cell	67.4	45.2	34.6	27.4	19.6	14.0	11.2	8.11	6.36	4.59	3.65	3.11	2.67	2.10	1.72	0.914
1.60V/cell	70.1	46.5	35.6	28.0	20.0	14.3	11.4	8.3	6.46	4.66	3.71	3.15	2.70	2.13	1.74	0.924

LP Series-General Purpose
LP12-9.0(12V9.0Ah)

LEOCH BATTERY

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

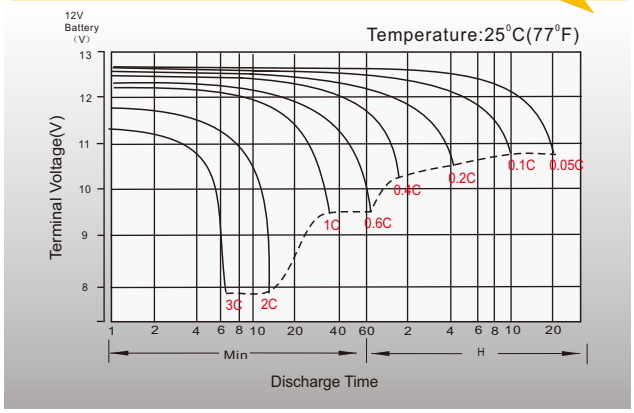
General Features

- 5 years design life(25℃)
- 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

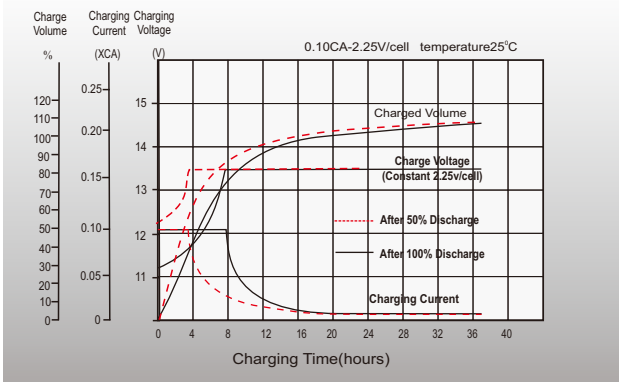
Standards

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

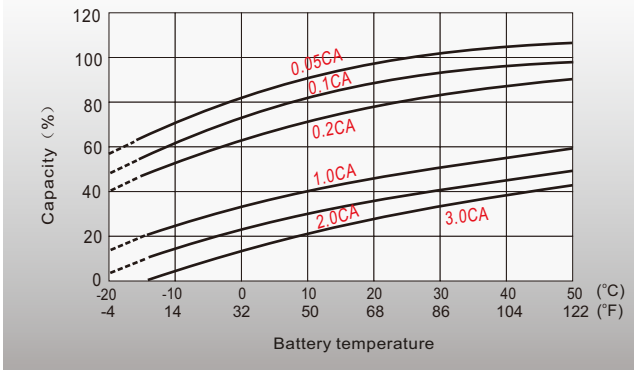
Discharge Characteristics



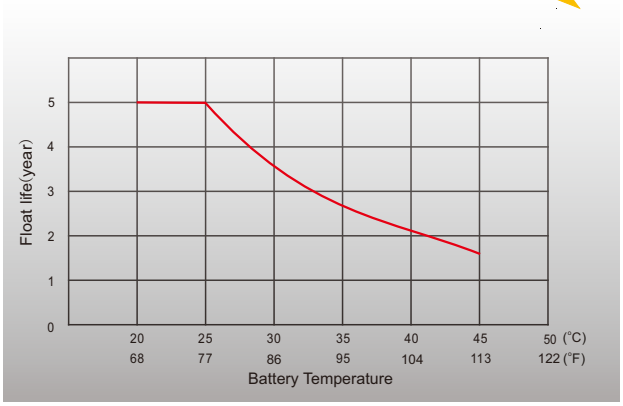
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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Publication No.: LB-LP12-9.0-PD-EN-V2.0-202004

LP Series-General Purpose
LP12-18(12V18Ah)

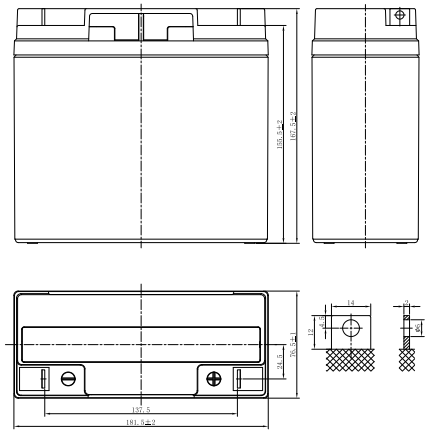
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	18.0Ah	(C_{20},1.75V/cell)
Dimension	Length Width Container Height Total Height	181.5±2mm (7.14 inches) 76.5±1mm (3.01 inches) 167.5±2mm (6.59 inches) 167.5±2mm (6.59 inches)
Approx Weight		5.4 Kg (11.9 lbs)
Terminal		T3
Container Material		ABS
Rated Capacity (25°C)	18.0 Ah 17.0 Ah 15.5 Ah 13.6 Ah 11.2 Ah	(20hr,0.900A,1.75V/cell) (10hr,1.70A,1.75V/cell) (5hr,3.10A,1.75V/cell) (3hr,4.52A,1.75V/cell) (1hr,11.2A,1.60V/cell)
Max. Discharge Current		270A (5s)
Internal Resistance (25°C)		Approx 16mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 5.4A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 5.4A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	49.1	33.7	26.2	21.9	16.6	12.3	10.2	7.5	6.0	4.37	3.52	3.02	2.58	2.03	1.66	0.880
1.80V/cell	52.8	35.7	27.5	22.7	17.1	12.6	10.4	7.7	6.1	4.44	3.57	3.06	2.62	2.06	1.69	0.890
1.75V/cell	55.7	37.1	28.4	23.4	17.5	12.9	10.6	7.8	6.2	4.52	3.62	3.10	2.65	2.09	1.70	0.900
1.70V/cell	58.3	38.6	29.4	24.0	18.0	13.2	10.8	8.0	6.3	4.58	3.67	3.14	2.68	2.11	1.72	0.907
1.67V/cell	60.3	39.7	30.1	24.5	18.3	13.4	11.0	8.1	6.4	4.63	3.71	3.17	2.71	2.12	1.73	0.914
1.60V/cell	64.0	41.4	31.1	25.3	18.8	13.7	11.2	8.2	6.5	4.71	3.77	3.22	2.75	2.15	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	93.0	64.1	50.2	42.1	32.1	23.8	19.8	14.7	11.7	8.59	6.94	5.95	5.11	4.03	3.31	1.76
1.80V/cell	99.0	67.5	52.4	43.6	32.9	24.4	20.2	15.0	11.9	8.72	7.03	6.03	5.18	4.09	3.35	1.78
1.75V/cell	103.2	69.7	53.8	44.5	33.6	24.8	20.5	15.2	12.1	8.83	7.12	6.10	5.23	4.13	3.38	1.80
1.70V/cell	107.0	72.0	55.2	45.6	34.3	25.3	20.8	15.4	12.2	8.95	7.20	6.17	5.29	4.17	3.41	1.81
1.67V/cell	109.8	73.6	56.4	46.4	34.8	25.6	21.1	15.6	12.4	9.02	7.26	6.22	5.33	4.20	3.43	1.83
1.60V/cell	114.2	75.8	57.9	47.6	35.6	26.1	21.5	15.9	12.6	9.17	7.37	6.30	5.40	4.25	3.47	1.85

LP Series-General Purpose
LP12-18(12V18Ah)

LEOCH BATTERY

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

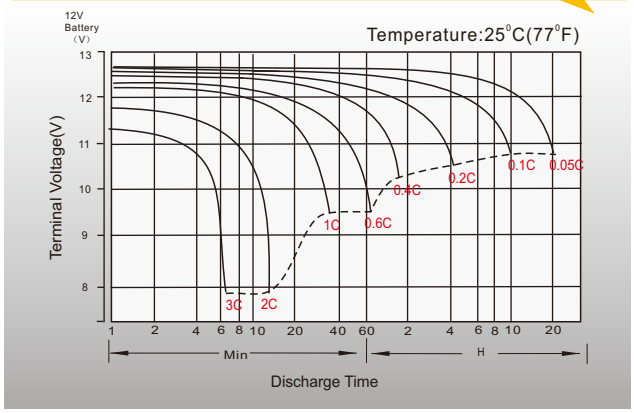
General Features

- 5 years design life(25℃)
- 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

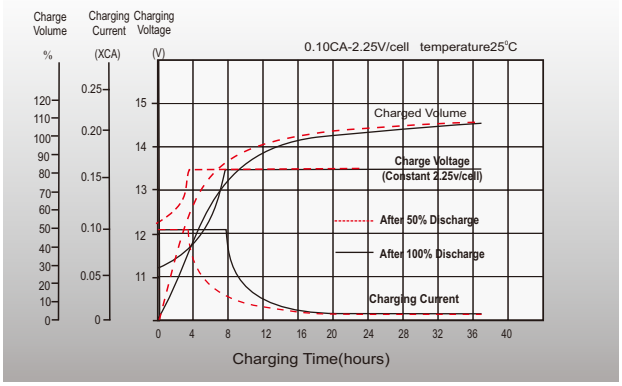
Standards

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

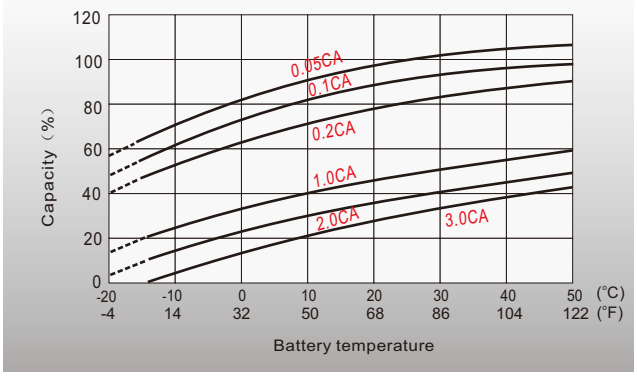
Discharge Characteristics



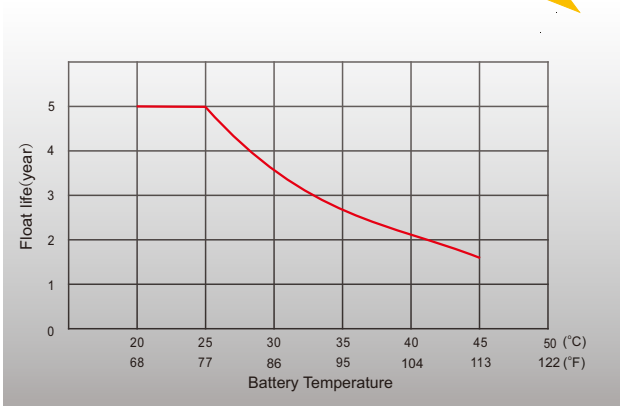
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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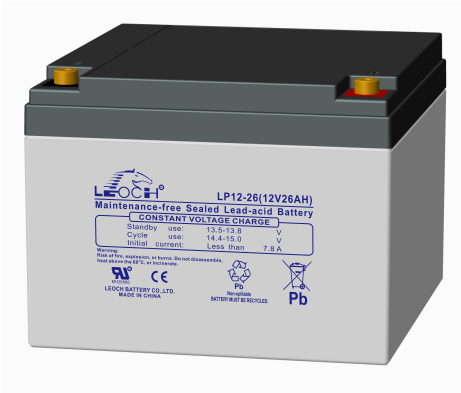
Publication No.: LB-LP12-18-PD-EN-V2.0-202004

LP Series-General Purpose
LP12-26(12V26Ah)

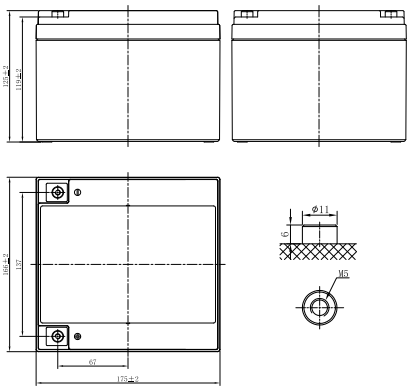
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	26.0Ah	(C_{20},1.75V/cell)
Dimension	Length Width Container Height Total Height	166±2mm (6.54 inches) 175±2mm (6.93 inches) 125±2mm (4.92 inches) 125±2mm (4.92 inches)
Approx Weight		7.8 Kg (17.2 lbs)
Terminal		M5
Container Material		ABS
Rated Capacity (25°C)	26.0 Ah 24.6 Ah 21.9 Ah 19.1 Ah 16.0 Ah	(20hr,1.30A,1.75V/cell) (10hr,2.46A,1.75V/cell) (5hr,4.37A,1.75V/cell) (3hr,6.38A,1.75V/cell) (1hr,16.0A,1.60V/cell)
Max. Discharge Current		390A (5s)
Internal Resistance (25°C)		Approx 14mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 7.8A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 7.8A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	69.9	51.1	38.8	33.1	24.8	18.2	14.5	10.8	8.56	6.18	4.92	4.25	3.64	2.87	2.40	1.27
1.80V/cell	75.1	54.2	40.7	34.4	25.6	18.7	14.8	11.0	8.72	6.28	5.00	4.31	3.70	2.91	2.44	1.29
1.75V/cell	79.2	56.3	42.0	35.3	26.2	19.1	15.1	11.2	8.88	6.38	5.06	4.37	3.74	2.94	2.46	1.30
1.70V/cell	82.9	58.6	43.4	36.4	26.9	19.5	15.4	11.4	9.01	6.47	5.13	4.43	3.78	2.97	2.48	1.31
1.67V/cell	85.8	60.3	44.5	37.1	27.4	19.8	15.6	11.6	9.11	6.54	5.18	4.46	3.82	2.99	2.50	1.32
1.60V/cell	91.0	62.8	46.0	38.2	28.1	20.3	16.0	11.8	9.29	6.66	5.27	4.54	3.87	3.04	2.53	1.34

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	132.2	97.3	74.2	63.7	47.9	35.2	28.2	21.1	16.8	12.1	9.70	8.39	7.20	5.68	4.77	2.54
1.80V/cell	140.8	102.4	77.4	65.9	49.2	36.1	28.8	21.4	17.0	12.3	9.82	8.50	7.30	5.76	4.84	2.57
1.75V/cell	146.7	105.7	79.5	67.3	50.3	36.7	29.2	21.8	17.3	12.5	9.94	8.60	7.38	5.82	4.88	2.60
1.70V/cell	152.1	109.2	81.7	68.9	51.3	37.4	29.7	22.1	17.5	12.6	10.1	8.70	7.45	5.87	4.93	2.62
1.67V/cell	156.1	111.7	83.4	70.2	52.1	37.9	30.1	22.3	17.7	12.8	10.1	8.76	7.52	5.92	4.96	2.64
1.60V/cell	162.4	114.9	85.7	71.9	53.2	38.6	30.6	22.7	18.0	13.0	10.3	8.88	7.61	5.99	5.02	2.67

LP Series-General Purpose
LP12-26(12V26Ah)

LEOCH BATTERY

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

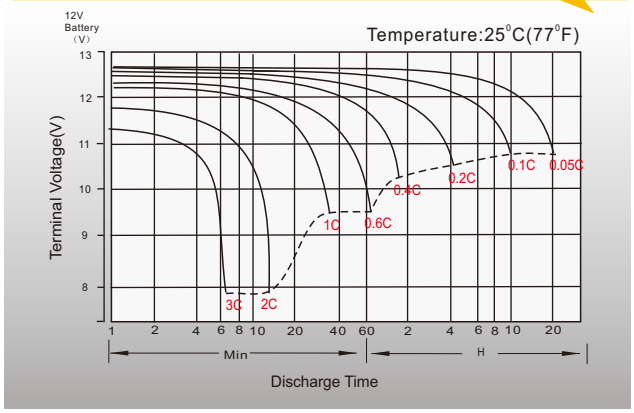
General Features

- 5 years design life(25℃)
- 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

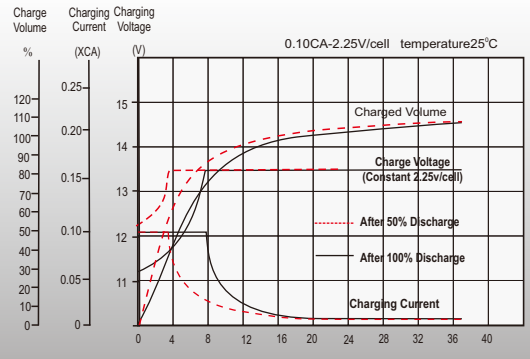
Standards

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- UL, CE Certified
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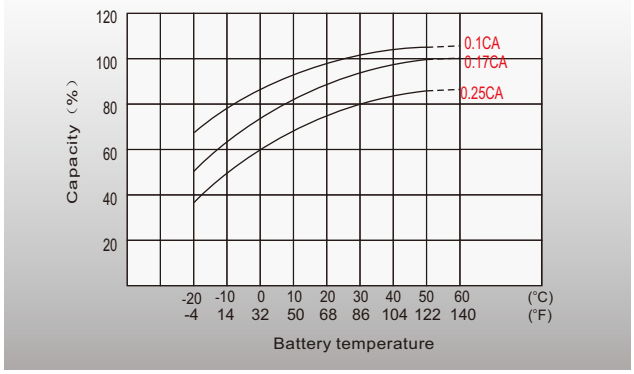
Discharge Characteristics



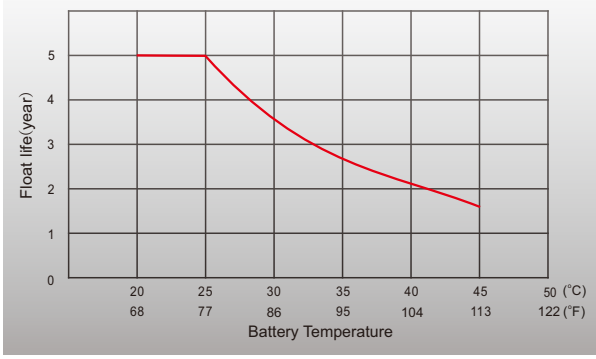
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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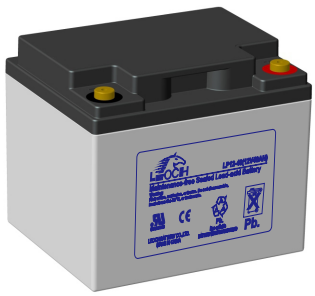
Publication No.: LB-LP12-26-PD-EN-V2.0-202004

LP Series-General Purpose
LP12-40(12V40Ah)

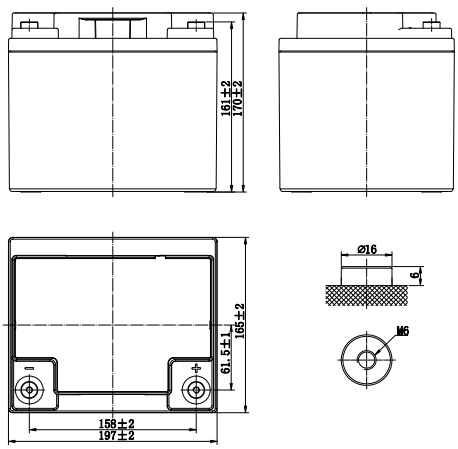
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	40.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	197±2mm (7.76 inches) 165±2mm (6.50 inches) 170±2mm (6.69 inches) 170±2mm (6.69 inches)
Approx Weight		13.7 Kg (26.9 lbs)
Terminal		M6
Container Material		ABS
Rated Capacity (25°C)	42.0 Ah 40.0 Ah 36.4 Ah 33.3 Ah 25.5 Ah	C20(2.10A,1.80V/cell) C10(4.00A,1.80V/cell) C5(7.28A,1.75V/cell) C3(11.1A,1.75V/cell) C1(25.5A,1.60V/cell)
Max. Discharge Current		400A (5s)
Internal Resistance (25°C)		Approx 9.0mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 12.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 12.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	83.2	59.2	51.3	40.3	36.1	26.4	22.3	16.2	13.6	9.99	7.84	6.80	5.99	4.61	3.82	2.03
1.80V/cell	94.6	67.2	58.1	45.6	39.3	28.0	23.1	16.7	14.1	10.8	8.36	7.15	6.44	4.85	4.00	2.10
1.75V/cell	102.8	72.8	62.9	49.2	40.1	29.0	24.3	17.6	14.8	11.1	8.52	7.28	6.49	4.88	4.04	2.12
1.70V/cell	109.9	77.7	66.9	52.2	40.9	29.5	24.8	18.0	15.1	11.3	8.67	7.40	6.52	4.95	4.08	2.14
1.67V/cell	113.7	80.1	68.8	53.6	41.5	30.0	25.1	18.2	15.3	11.4	8.80	7.55	6.55	5.02	4.13	2.17
1.60V/cell	117.8	82.9	70.9	55.0	42.1	30.4	25.5	18.5	15.5	11.5	8.91	7.66	6.60	5.09	4.18	2.19

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	155.4	111.3	97.1	76.7	70.3	50.7	44.1	32.0	27.0	19.9	15.7	13.7	11.8	9.33	7.75	4.12
1.80V/cell	173.9	124.5	108.7	85.8	75.9	53.4	45.4	33.0	27.8	21.5	16.7	14.3	12.7	9.79	8.10	4.26
1.75V/cell	185.6	132.9	116.0	91.6	76.9	55.0	47.4	34.5	29.1	21.9	16.9	14.5	12.7	9.82	8.17	4.30
1.70V/cell	195.1	139.7	121.9	96.3	77.8	55.7	48.1	35.0	29.6	22.2	17.2	14.7	12.8	10.0	8.25	4.34
1.67V/cell	198.3	142.0	123.9	97.9	78.3	56.2	48.6	35.4	29.9	22.3	17.4	15.0	12.8	10.1	8.34	4.39
1.60V/cell	201.0	144.0	125.6	99.3	78.7	56.5	48.9	35.6	30.1	22.4	17.5	15.1	12.9	10.2	8.42	4.43

LP Series-General Purpose
LP12-40(12V40Ah)

LEOCH BATTERY

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

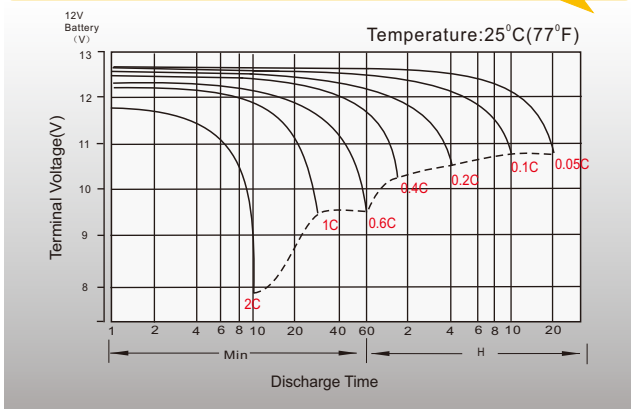
General Features

- 8 years design life(25℃)
- 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

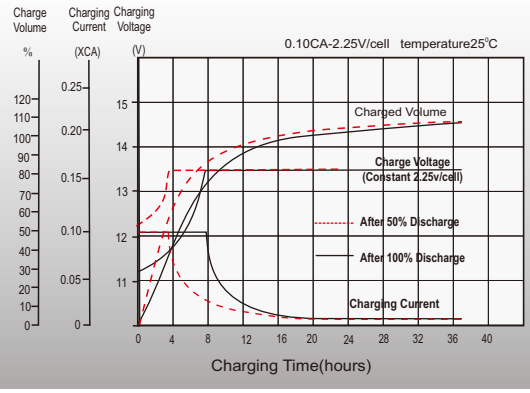
Standards

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

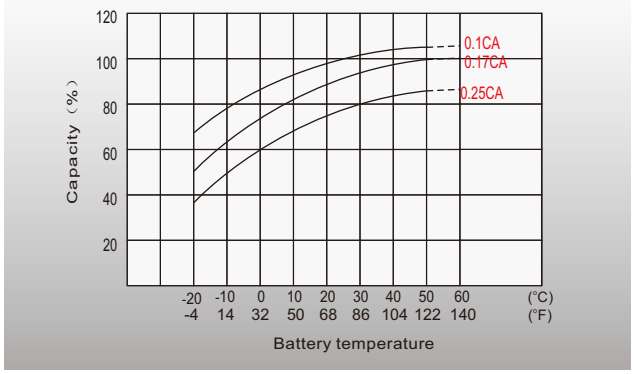
Discharge Characteristics



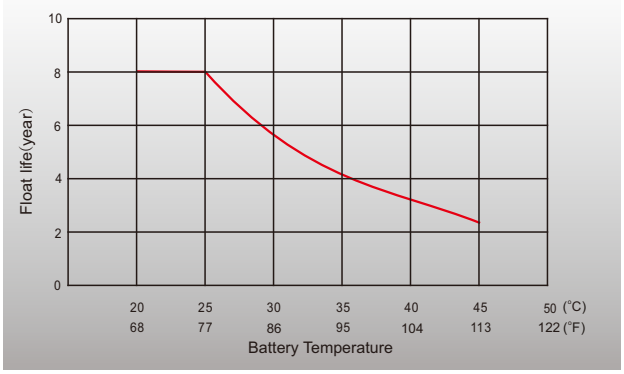
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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LP Series-General Purpose
LP12-55(12V55Ah)

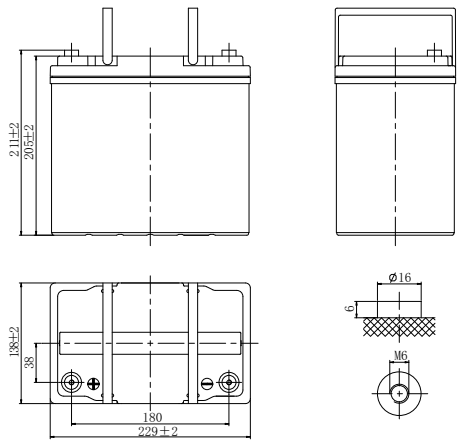
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	55.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	229±2mm (9.02 inches) 138±2mm (5.43 inches) 205±2mm (8.07 inches) 211±2mm (8.31 inches)
Approx Weight		16.2 Kg (35.7 lbs)
Terminal		M6
Container Material		ABS
Rated Capacity (25°C)	57.8 Ah 55.0 Ah 50.0 Ah 45.6 Ah 35.1 Ah	(20hr,2.89A,1.80V/cell) (10hr,5.50A,1.80V/cell) (5hr,10.0A,1.75V/cell) (3hr,15.2A,1.75V/cell) (1hr,35.1A,1.60V/cell)
Max. Discharge Current		550A (5s)
Internal Resistance (25°C)		Approx 9.0mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 16.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 16.5A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	112.1	79.7	70.5	55.5	49.6	36.3	30.7	22.3	18.7	13.7	10.8	9.35	8.24	6.34	5.25	2.79
1.80V/cell	127.5	90.5	79.9	62.7	54.0	38.4	31.8	23.0	19.3	14.9	11.5	9.83	8.86	6.67	5.50	2.89
1.75V/cell	138.5	98.2	86.5	67.7	55.1	39.8	33.4	24.2	20.4	15.2	11.7	10.0	8.93	6.70	5.56	2.92
1.70V/cell	148.1	104.7	91.9	71.8	56.2	40.6	34.1	24.7	20.8	15.5	11.9	10.2	8.97	6.81	5.61	2.95
1.67V/cell	153.3	108.0	94.6	73.8	57.0	41.2	34.6	25.1	21.1	15.6	12.1	10.4	9.01	6.90	5.68	2.98
1.60V/cell	158.7	111.7	97.5	75.7	57.9	41.8	35.1	25.4	21.4	15.8	12.2	10.5	9.08	6.99	5.75	3.02

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	203.0	145.4	133.6	105.5	94.8	69.7	59.4	43.2	36.4	26.8	21.1	18.4	16.3	12.6	10.4	5.55
1.80V/cell	227.1	162.7	149.4	118.0	102.4	73.4	61.2	44.4	37.4	29.0	22.5	19.3	17.4	13.2	10.9	5.74
1.75V/cell	242.4	173.6	159.5	126.0	103.7	75.6	64.0	46.5	39.2	29.5	22.8	19.6	17.5	13.2	11.0	5.79
1.70V/cell	254.8	182.5	167.6	132.4	104.9	76.6	64.9	47.2	39.9	29.9	23.1	19.8	17.6	13.4	11.1	5.84
1.67V/cell	259.0	185.5	170.4	134.6	105.6	77.3	65.5	47.7	40.3	30.1	23.4	20.2	17.6	13.6	11.2	5.91
1.60V/cell	262.6	188.1	172.8	136.5	106.1	77.7	66.0	48.0	40.6	30.2	23.6	20.4	17.7	13.7	11.4	5.97

LP Series-General Purpose
LP12-55(12V55Ah)

LEOCH BATTERY

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

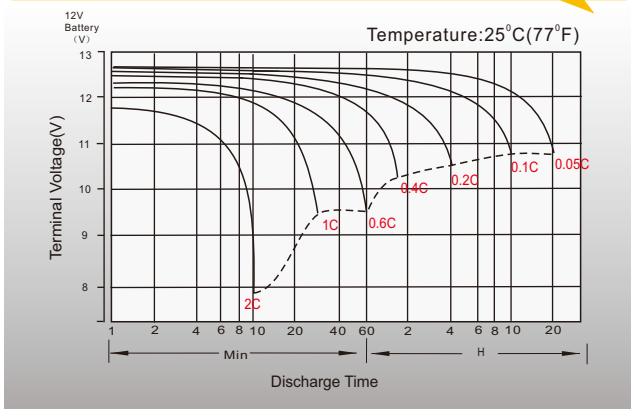
General Features

- 8 years design life(25℃)
- 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

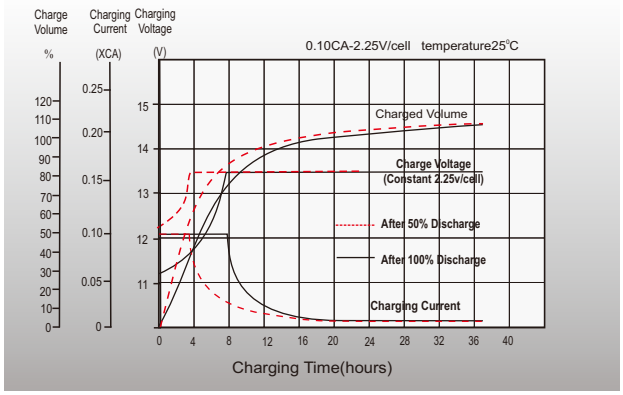
Standards

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

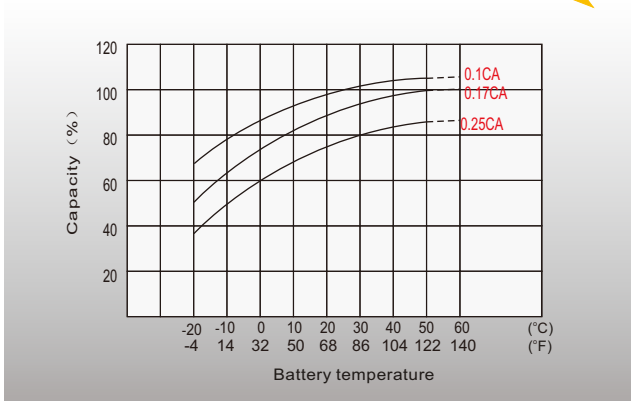
Discharge Characteristics



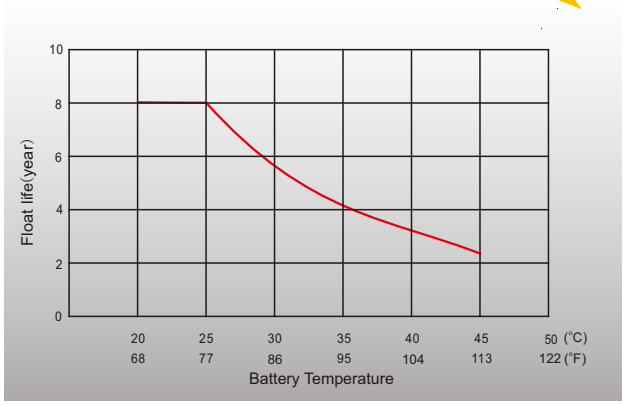
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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LP Series-General Purpose
LP12-75(12V75Ah)

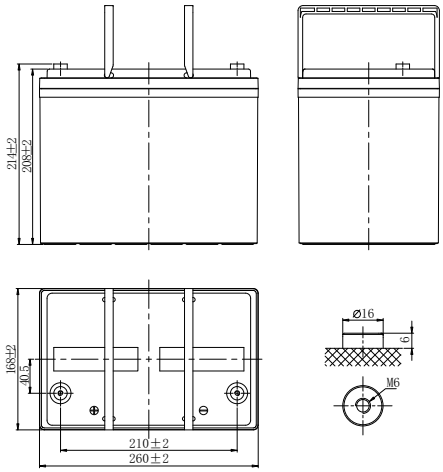
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	75.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	260±2mm (10.2 inches) 168±2mm (6.61 inches) 208±2mm (8.19 inches) 214±2mm (8.43 inches)
Approx Weight		22.3 Kg (49.06 lbs)
Terminal		M6
Container Material		ABS
Rated Capacity (25°C)	78.2 Ah 75.0 Ah 68.5 Ah 62.1 Ah 47.8 Ah	(20hr,3.94A,1.80V/cell) (10hr,7.50A,1.80V/cell) (5hr,13.7A,1.75V/cell) (3hr,20.7A,1.75V/cell) (1hr,47.8A,1.60V/cell)
Max. Discharge Current		750A (5s)
Internal Resistance (25°C)		Approx 6.6mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 22.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 22.5A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	149.8	106.5	96.2	75.7	67.6	49.5	41.9	30.4	25.5	18.7	14.7	12.8	11.2	8.64	7.16	3.80
1.80V/cell	170.4	120.9	109.0	85.5	73.6	52.4	43.4	31.4	26.4	20.3	15.7	13.4	12.1	9.09	7.50	3.94
1.75V/cell	185.1	131.1	118.0	92.3	75.2	54.3	45.5	33.0	27.8	20.7	16.0	13.7	12.2	9.14	7.58	3.98
1.70V/cell	197.8	139.8	125.3	97.9	76.7	55.4	46.5	33.7	28.3	21.1	16.3	13.9	12.2	9.28	7.65	4.02
1.67V/cell	204.7	144.2	129.0	100.6	77.8	56.2	47.1	34.2	28.7	21.3	16.5	14.2	12.3	9.41	7.75	4.07
1.60V/cell	212.0	149.2	133.0	103.2	78.9	57.0	47.8	34.7	29.1	21.5	16.7	14.4	12.4	9.53	7.84	4.11

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	279.8	200.4	182.1	143.9	129.3	93.2	81.0	58.9	49.7	36.6	28.8	25.1	21.8	17.2	14.2	7.57
1.80V/cell	313.0	224.2	203.8	161.0	139.6	98.1	83.5	60.6	51.0	39.5	30.7	26.3	23.3	18.0	14.9	7.83
1.75V/cell	334.0	239.2	217.5	171.8	141.4	101.0	87.2	63.4	53.5	40.2	31.1	26.7	23.4	18.0	15.0	7.90
1.70V/cell	351.1	251.5	228.6	180.6	143.0	102.4	88.5	64.4	54.3	40.8	31.5	27.0	23.5	18.3	15.2	7.97
1.67V/cell	356.9	255.6	232.3	183.5	144.0	103.3	89.3	65.0	54.9	41.0	31.9	27.5	23.5	18.5	15.3	8.06
1.60V/cell	361.9	259.2	235.6	186.1	144.6	103.8	89.9	65.5	55.4	41.2	32.2	27.8	23.6	18.7	15.5	8.14

LP Series-General Purpose
LP12-75(12V75Ah)

LEOCH BATTERY

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

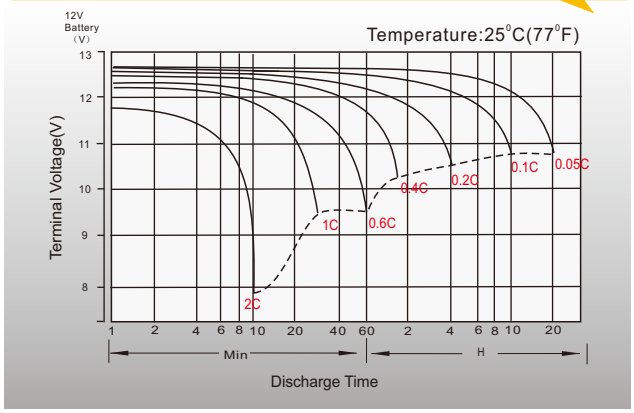
General Features

- 8 years design life(25℃)
- 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

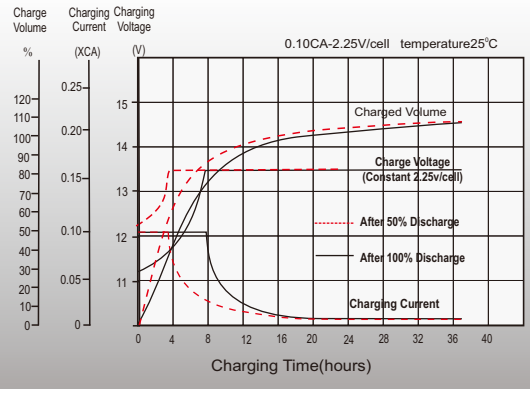
Standards

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

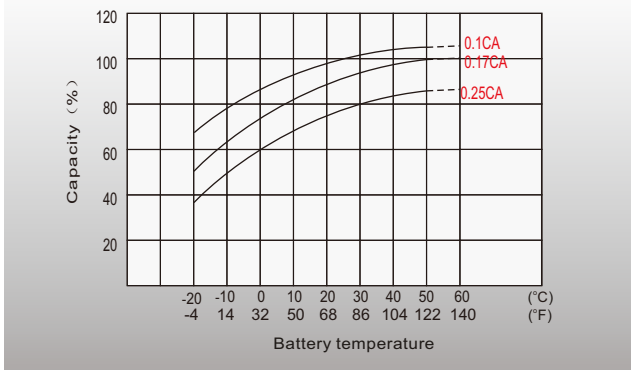
Discharge Characteristics



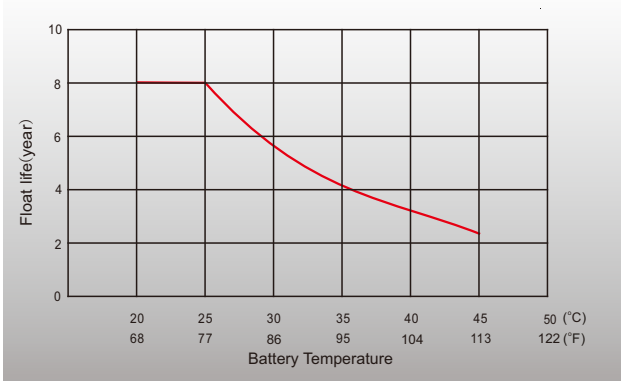
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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Publication No.: LB-LP12-75-PD-EN-V2.0-202004

LP Series-General Purpose
LP12-80(12V80Ah)

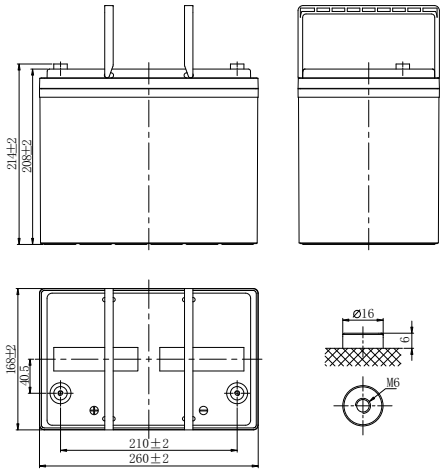
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	80.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	260±2mm (10.2 inches) 168±2mm (6.61 inches) 208±2mm (8.19 inches) 214±2mm (8.43 inches)
Approx Weight		23.8 Kg (52.36 lbs)
Terminal		M6
Container Material		ABS
Rated Capacity (25°C)	85.6Ah 80.0 Ah 74.5 Ah 67.5 Ah 52.0 Ah	(20hr,4.28A,1.80V/cell) (10hr,8.00A,1.80V/cell) (5hr,14.9A,1.75V/cell) (3hr,22.5A,1.75V/cell) (1hr,52.0A,1.60V/cell)
Max. Discharge Current		800A (5s)
Internal Resistance (25°C)		Approx 6.2mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 24.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 24.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	162.8	115.7	104.7	82.3	73.6	53.8	45.6	33.0	27.8	20.4	16.0	13.9	12.2	9.40	7.79	4.13
1.80V/cell	185.1	131.4	118.6	93.1	80.1	57.0	47.2	34.2	28.7	22.1	17.1	14.6	13.1	9.89	8.00	4.28
1.75V/cell	201.1	142.5	128.4	100.5	81.8	59.0	49.5	35.9	30.2	22.5	17.4	14.9	13.2	9.95	8.24	4.33
1.70V/cell	215.0	151.9	136.4	106.5	83.4	60.2	50.5	36.6	30.8	23.0	17.7	15.1	13.3	10.1	8.32	4.37
1.67V/cell	222.5	156.7	140.4	109.4	84.6	61.1	51.3	37.2	31.2	23.2	18.0	15.4	13.4	10.2	8.43	4.43
1.60V/cell	230.4	162.1	144.7	112.2	85.9	62.0	52.0	37.7	31.7	23.4	18.2	15.6	13.4	10.4	8.53	4.48

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	304.0	217.8	198.2	156.6	140.6	101.3	88.2	64.1	54.0	39.8	31.4	27.3	24.1	18.7	15.5	8.23
1.80V/cell	340.1	243.6	221.7	175.1	151.9	106.6	90.8	65.9	55.5	43.0	33.4	28.6	25.8	19.6	16.2	8.52
1.75V/cell	363.0	260.0	236.6	186.9	153.8	109.8	94.9	69.0	58.2	43.7	33.9	29.0	25.9	19.6	16.3	8.59
1.70V/cell	381.6	273.3	248.7	196.5	155.6	111.2	96.3	70.1	59.1	44.4	34.3	29.4	26.0	19.9	16.5	8.67
1.67V/cell	387.8	277.8	252.8	199.7	156.7	112.2	97.1	70.7	59.7	44.6	34.7	29.9	26.1	20.1	16.7	8.77
1.60V/cell	393.2	281.6	256.3	202.5	157.4	112.8	97.9	71.3	60.2	44.8	35.0	30.2	26.2	20.4	16.8	8.86

LP Series-General Purpose
LP12-80(12V80Ah)

LEOCH BATTERY

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

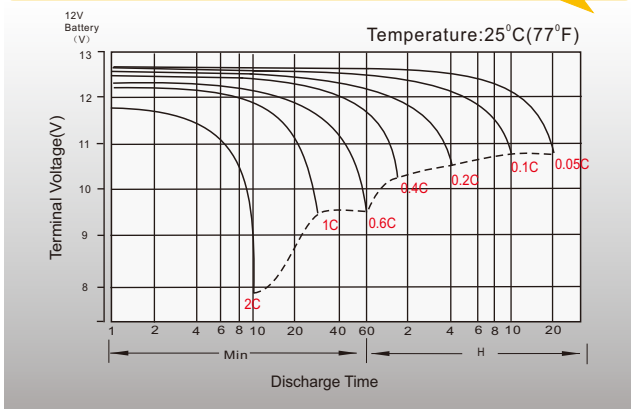
General Features

- 8 years design life(25℃)
- 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

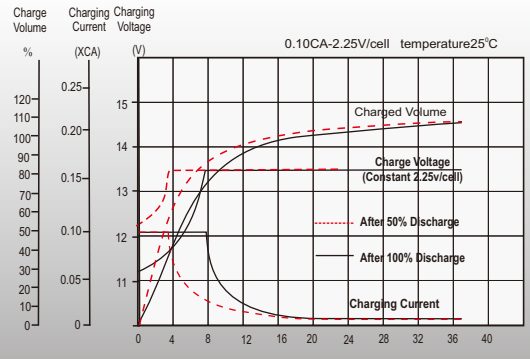
Standards

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

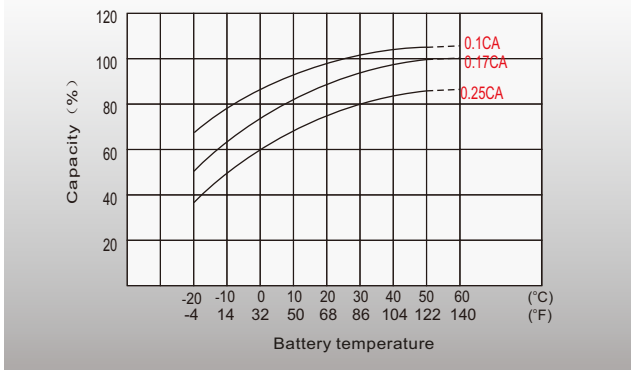
Discharge Characteristics



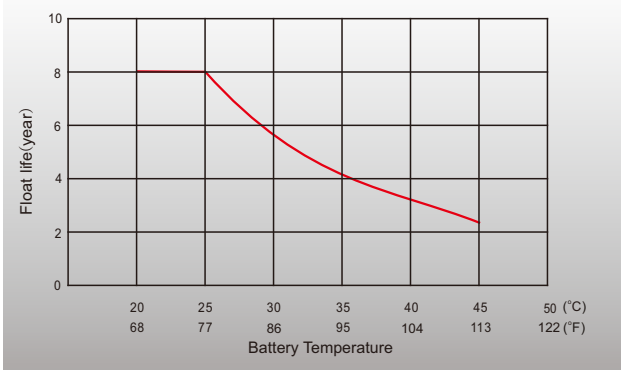
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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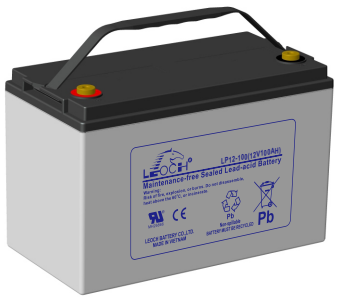
Publication No.: LB-LP12-80-PD-EN-V2.0-202004

LP Series-General Purpose
LP12-100(12V100Ah)

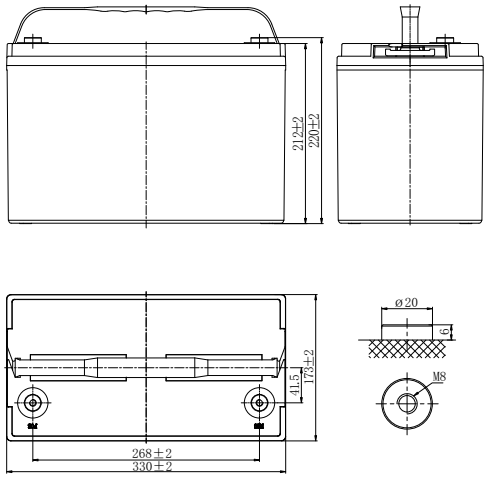
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	100.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	330±2mm (12.99 inches) 173±2mm (6.81 inches) 212±2mm (8.35 inches) 220±2mm (8.66 inches)
Approx Weight		28.0 Kg (61.7 lbs)
Terminal		M8
Container Material		ABS
Rated Capacity (25°C)	105.0 Ah 100.0 Ah 89.0 Ah 77.1 Ah 64.6 Ah	(20hr,5.25A,1.80V/cell) (10hr,10.0A,1.80V/cell) (5hr,17.8A,1.75V/cell) (3hr,25.7A,1.75V/cell) (1hr,64.6A,1.60V/cell)
Max. Discharge Current		1000A (5s)
Internal Resistance (25°C)		Approx 5.0mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 30.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 30.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	152.8	119.2	82.5	67.5	52.5	35.5	29.9	23.8	19.4	16.6	15.0	11.7	9.39	4.93
1.80V/cell	170.3	132.8	92.0	73.8	55.6	37.5	31.5	25.0	20.3	17.2	15.5	12.0	10.0	5.25
1.75V/cell	177.7	138.6	96.0	77.5	59.0	39.7	33.0	25.7	21.1	17.8	15.9	12.2	10.2	5.36
1.70V/cell	179.9	140.3	97.2	79.5	61.7	41.5	34.2	26.5	21.6	18.1	16.2	12.4	10.3	5.41
1.67V/cell	182.7	142.5	98.7	81.3	63.9	42.9	35.2	27.3	22.1	18.4	16.5	12.6	10.4	5.46
1.60V/cell	185.5	144.7	100.2	82.4	64.6	44.0	35.8	27.8	22.4	18.7	16.7	12.7	10.5	5.51

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

F.V/Time	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	280.1	218.5	151.3	117.9	84.4	64.3	52.9	40.4	33.2	30.4	26.9	20.0	16.7	8.79
1.80V/cell	312.2	243.5	168.6	129.7	90.7	69.3	57.1	43.3	35.1	32.2	28.4	20.7	17.0	8.94
1.75V/cell	325.8	254.1	175.9	135.7	95.4	72.3	59.3	44.6	36.3	33.2	29.1	21.0	17.2	9.04
1.70V/cell	329.9	257.3	178.1	138.9	99.7	74.8	60.9	45.8	37.2	33.9	29.6	21.1	17.4	9.14
1.67V/cell	335.0	261.3	180.9	142.5	104.1	77.5	62.6	47.2	38.2	34.3	30.0	21.3	17.6	9.24
1.60V/cell	340.0	265.2	183.6	145.9	108.2	79.9	63.9	48.1	38.7	34.7	30.4	21.7	17.9	9.40

LP Series-General Purpose
LP12-100(12V100Ah)

LEOCH BATTERY

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

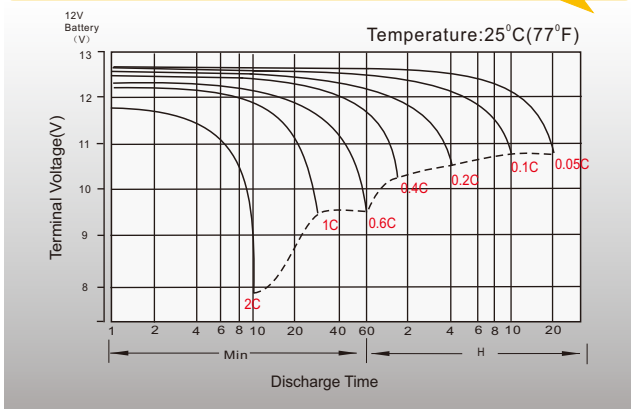
General Features

- 8 years design life(25℃)
- 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

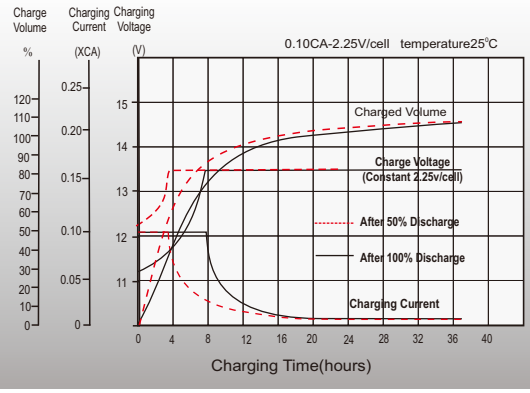
Standards

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- UL, CE Certified
- Manufactured in Leoch®IATF16949, ISO45001,ISO 9001 and ISO 14001 certified production facilities

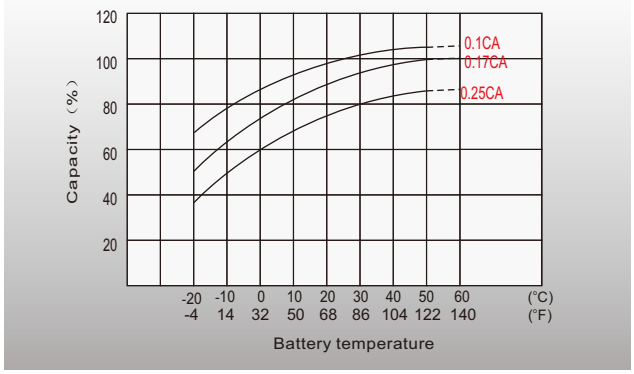
Discharge Characteristics



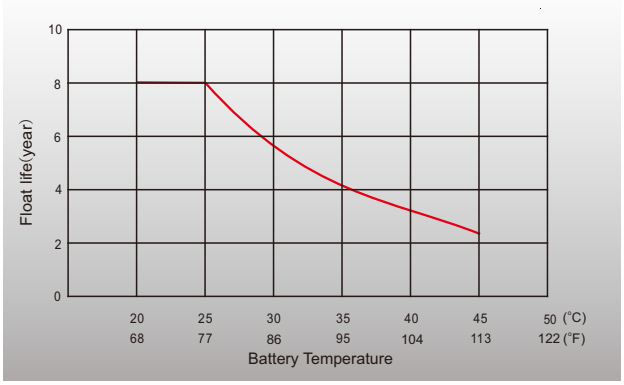
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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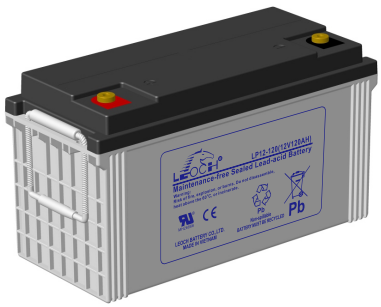
Publication No.: LB-LP12-100-PD-EN-V2.0-202004

LP Series-General Purpose
LP12-120(12V120Ah)

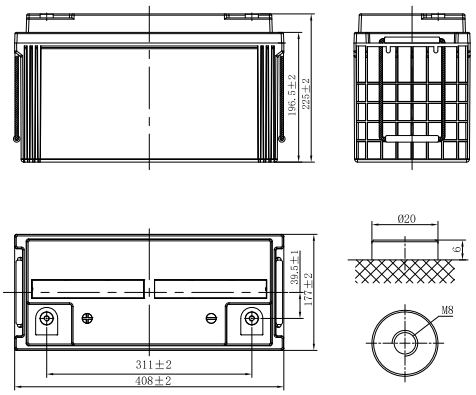
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	120.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	408±2mm (16.1 inches) 177±2mm (6.97 inches) 225±2mm (8.86 inches) 225±2mm (8.86 inches)
Approx Weight		35.0 Kg (77.2 lbs)
Terminal		M8
Container Material		ABS
Rated Capacity (25°C)	123.4 Ah 120.0 Ah 107.0 Ah 97.5 Ah 75.0 Ah	(20hr,6.17A,1.80V/cell) (10hr,12.0A,1.80V/cell) (5hr,21.4A,1.75V/cell) (3hr,32.5A,1.75V/cell) (1hr,75.0A,1.60V/cell)
Max. Discharge Current		1200A (5s)
Internal Resistance (25°C)		Approx 4.0mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 36.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 36.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	234.7	166.9	150.8	118.6	106.1	77.5	65.7	47.6	40.0	29.4	23.0	20.0	17.6	13.6	11.2	5.96
1.80V/cell	266.9	189.4	170.9	134.1	115.5	82.1	68.1	49.2	41.3	31.9	24.6	21.0	18.9	14.3	12.0	6.17
1.75V/cell	289.9	205.4	185.1	144.8	117.8	85.1	71.4	51.8	43.5	32.5	25.1	21.4	19.1	14.3	12.1	6.24
1.70V/cell	309.9	219.0	196.5	153.5	120.2	86.8	72.8	52.8	44.4	33.1	25.5	21.8	19.2	14.6	12.2	6.30
1.67V/cell	320.8	226.0	202.3	157.7	122.0	88.1	73.9	53.6	45.0	33.4	25.9	22.2	19.3	14.8	12.3	6.38
1.60V/cell	332.1	233.7	208.6	161.8	123.7	89.3	75.0	54.3	45.7	33.7	26.2	22.5	19.4	14.9	12.4	6.45

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	438.3	313.9	285.6	225.6	202.7	149.0	127.1	92.4	77.9	57.4	45.2	39.4	34.8	26.9	22.3	11.9
1.80V/cell	490.3	351.2	319.5	252.4	218.9	156.8	130.9	95.0	80.0	62.0	48.1	41.2	37.2	28.2	23.4	12.3
1.75V/cell	523.3	374.8	341.0	269.4	221.7	161.5	136.7	99.4	83.9	63.0	48.8	41.8	37.4	28.3	23.6	12.4
1.70V/cell	550.1	394.0	358.5	283.2	224.2	163.6	138.7	101.0	85.2	64.0	49.5	42.4	37.5	28.7	23.8	12.5
1.67V/cell	559.1	400.4	364.3	287.8	225.8	165.1	140.0	101.9	86.1	64.3	50.1	43.1	37.6	29.0	24.0	12.6
1.60V/cell	566.9	406.0	369.4	291.8	226.8	165.9	141.0	102.7	86.8	64.6	50.4	43.5	37.7	29.3	24.3	12.8

LP Series-General Purpose
LP12-120(12V120Ah)

LEOCH BATTERY

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

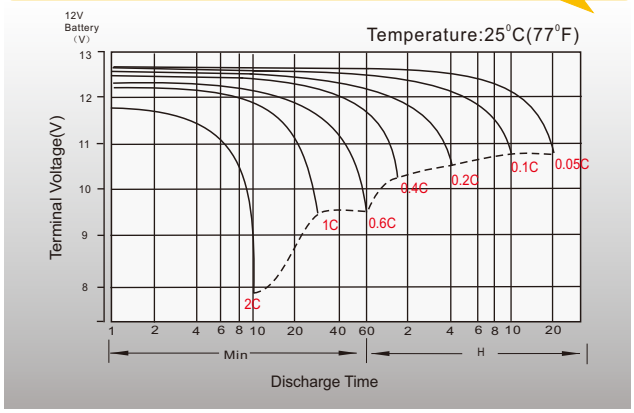
General Features

- 8 years design life(25℃)
- 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

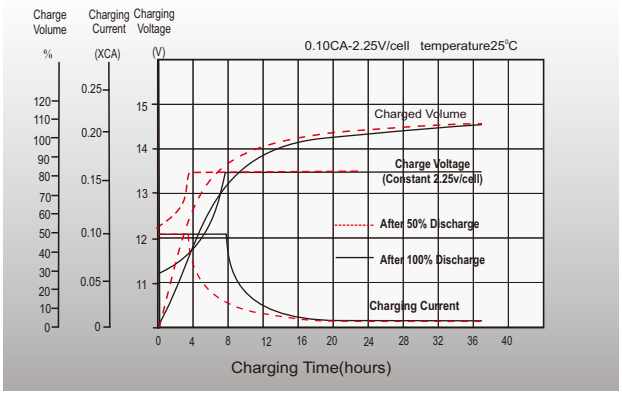
Standards

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

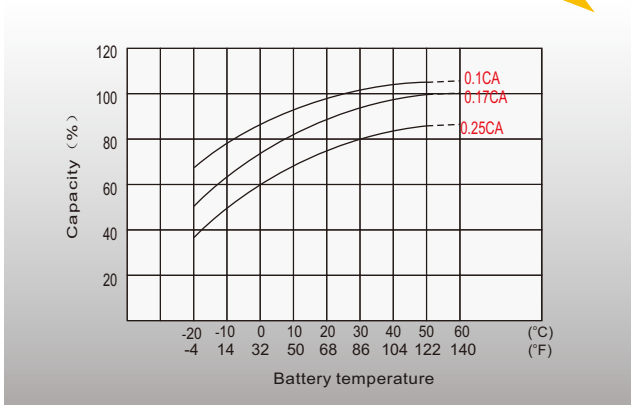
Discharge Characteristics



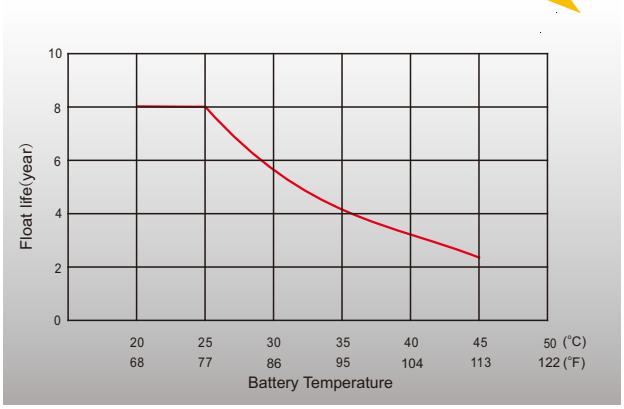
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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LP Series-General Purpose
LP12-200(12V200Ah)

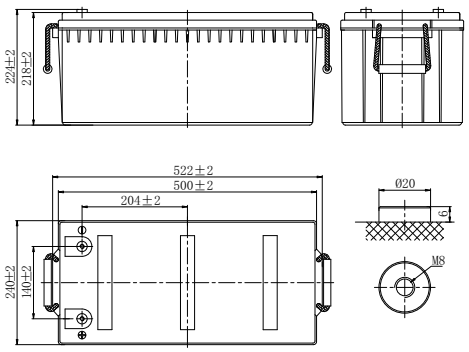
LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Capacity	200.0Ah	(C_{10},1.80V/cell)
Dimension	Length Width Container Height Total Height	522±2mm (20.55 inches) 240±2mm (9.45 inches) 218±2mm (8.58 inches) 224±2mm (8.81 inches)
Approx Weight		59.8 Kg (131.9 lbs)
Terminal		M8
Container Material		ABS
Rated Capacity (25°C)	208.0 Ah 200.0 Ah 180.0 Ah 164.1 Ah 126.2 Ah	(20hr,10.4A,1.80V/cell) (10hr,20.0A,1.80V/cell) (5hr,36.0A,1.75V/cell) (3hr,54.7A,1.75V/cell) (1hr,126.2A,1.60V/cell)
Max. Discharge Current		2000A (5s)
Internal Resistance (25°C)		Approx 3.2mΩ
Operating Temp.Range	Discharge Charge Storage	-15 ~ 50°C (5 ~ 122°F) 0 ~ 40°C (32 ~ 104°F) -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 60.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 60.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F) 25°C (77°F) 0°C (32°F)	103% 100% 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	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	287.1	254.0	199.7	178.6	130.6	110.6	80.2	67.4	49.4	38.8	33.7	29.7	22.8	18.9	10.0
1.80V/cell	325.8	287.8	225.8	194.4	138.4	114.6	82.9	69.6	53.7	41.4	35.4	31.9	24.0	20.0	10.4
1.75V/cell	353.4	311.6	243.8	198.4	143.4	120.2	87.1	73.3	54.7	42.2	36.0	32.1	24.1	20.1	10.5
1.70V/cell	376.8	330.9	258.5	202.4	146.2	122.6	88.9	74.7	55.8	42.9	36.6	32.3	24.5	20.2	10.6
1.67V/cell	388.7	340.6	265.5	205.3	148.4	124.4	90.2	75.8	56.3	43.6	37.4	32.4	24.8	20.5	10.7
1.60V/cell	402.0	351.1	272.4	208.3	150.5	126.2	91.5	76.9	56.8	44.1	37.9	32.7	25.2	20.7	10.9

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

F.V/Time	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	529.0	480.9	379.9	341.2	251.1	213.9	155.5	131.1	96.6	76.1	66.3	58.6	45.3	37.6	20.0
1.80V/cell	591.8	537.9	424.9	368.6	264.3	220.4	160.0	134.7	104.4	80.9	69.4	62.7	47.5	39.3	20.7
1.75V/cell	631.6	574.1	453.5	373.2	272.2	230.2	167.4	141.3	106.1	82.2	70.4	63.0	47.6	39.7	20.8
1.70V/cell	664.0	603.5	476.8	377.5	275.7	233.6	170.0	143.5	107.8	83.3	71.4	63.3	48.3	40.0	21.0
1.67V/cell	674.8	613.3	484.5	380.2	278.2	235.7	171.6	145.0	108.3	84.3	72.6	63.4	48.9	40.5	21.3
1.60V/cell	684.2	621.9	491.3	381.8	279.6	237.5	173.0	146.2	108.8	84.9	73.3	63.6	49.4	40.9	21.5

LP Series-General Purpose
LP12-200(12V200Ah)

LEOCH BATTERY

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

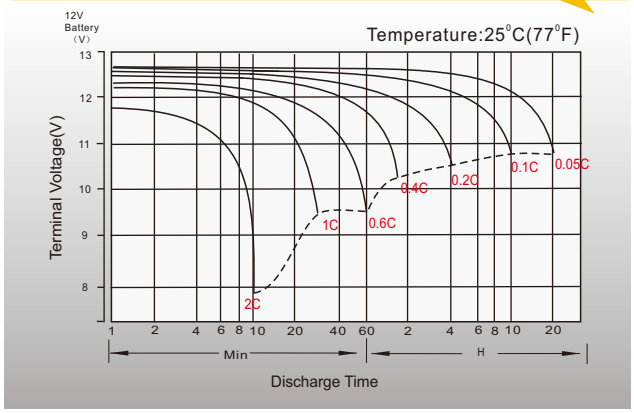
General Features

- 8 years design life(25℃)
- 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

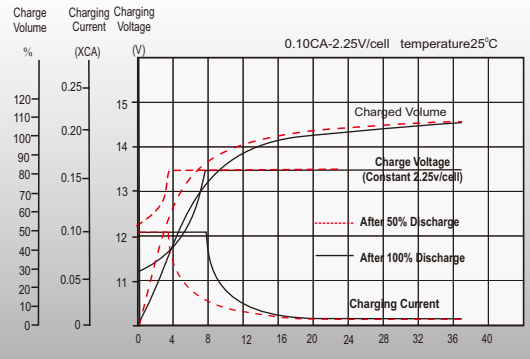
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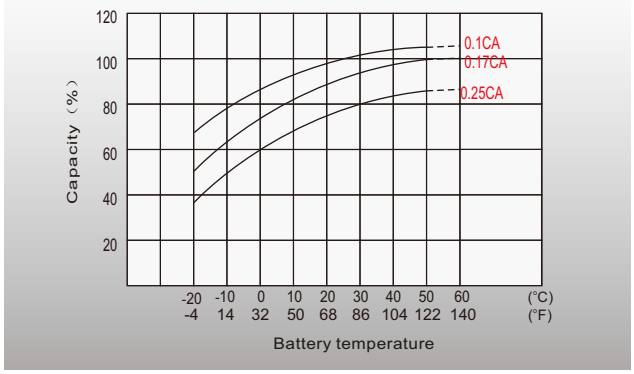
Discharge Characteristics



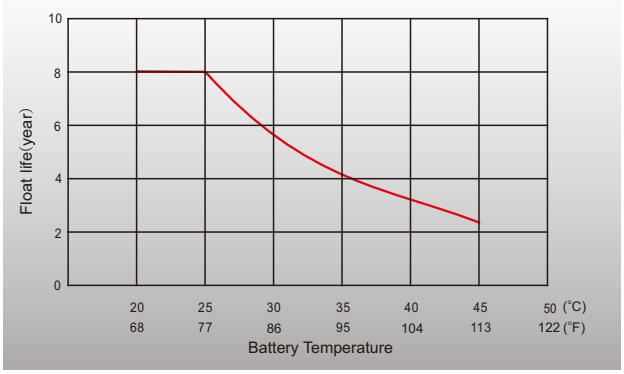
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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CERTIFICATE OF COMPLIANCE

Certificate Number:	20170727-MH20896
Report Reference:	MH20896-20000810
Issue Date:	2017-JULY-27

Issued to: SHENZHEN LEOCH BATTERIES TECHNOLOGY CO LTD
XINBAOHUI BLDG, 22ND FL, UNIT D & E
NANSHAN, NANYOU BLVD
SHENZHEN
GUANGDONG 518052 CHINA

This is to certify that representative samples of: COMPONENT - BATTERIES, STANDBY
See Addendum Page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 1989, Standby Batteries

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

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Bruce Mahrenholz, Director North American Certification Program
UL LLC

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