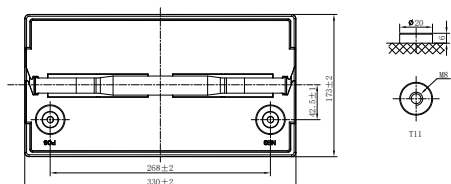
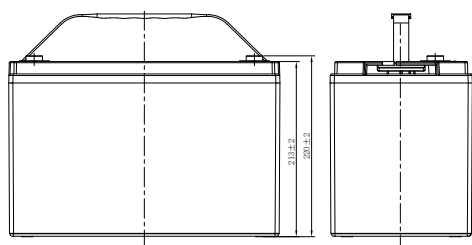


LP SERIES-GENERAL PURPOSE

LP12-90 (12V90Ah)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C_{10} 1.80V/cell	90Ah
Dimension	Length	330mm (13.0inches)
	Width	173mm (6.81inches)
	Container Height	213mm (8.39inches)
	Total Height	220mm (8.66inches)
Approx Weight	27.8kg (61.3lbs)	
Terminal	T11(M8)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	2070A	
Internal Resistance (25°C)	Approx 5.5 mΩ (Fully charged)	
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)	
Max.Charging Current (25°C)	0.3C	
Charge voltage (25°C)	Standby Use	Cycle Use
	2.25-2.30V/cell	2.35-2.40V/cell
Temp. Coefficient	-3mV/cell/°C	-5mV/cell/°C
	40°C (104°F)	103%
Effect of temp. to Capacity	25°C (77°F)	100%
	0°C (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	179.8	127.8	115.4	90.8	81.2	59.4	50.3	36.4	30.6	22.5	17.6	15.3	13.5	10.4	8.60	4.78
1.80V/cell	204.4	145.1	130.8	102.6	88.4	62.9	52.1	37.7	31.6	24.4	18.8	16.1	14.5	10.9	9.00	4.95
1.75V/cell	222.1	157.4	141.6	110.8	90.2	65.2	54.6	39.6	33.3	24.9	19.2	16.4	14.6	11.0	9.09	5.00
1.70V/cell	237.4	167.8	150.4	117.5	92.0	66.5	55.7	40.4	34.0	25.3	19.5	16.7	14.7	11.1	9.18	5.05
1.67V/cell	245.7	173.1	154.8	120.7	93.3	67.4	56.6	41.0	34.5	25.6	19.8	17.0	14.7	11.3	9.30	5.11
1.60V/cell	254.4	179.0	159.6	123.8	94.7	68.4	57.4	41.6	35.0	25.8	20.0	17.2	14.9	11.4	9.41	5.18
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	335.7	240.5	218.6	172.7	155.1	114.1	97.2	70.7	59.6	43.9	34.6	30.1	26.6	20.6	17.1	9.08
1.80V/cell	375.6	269.0	244.5	193.2	167.5	120.1	100.2	72.7	61.2	47.4	36.8	31.6	28.5	21.6	17.9	9.39
1.75V/cell	400.8	287.1	261.0	206.2	169.7	123.7	104.7	76.1	64.2	48.2	37.3	32.0	28.7	21.7	18.0	9.48
1.70V/cell	421.4	301.8	274.3	216.7	171.6	125.3	106.2	77.3	65.2	49.0	37.9	32.4	28.8	22.0	18.2	9.56
1.67V/cell	428.2	306.7	278.8	220.2	172.8	126.5	107.1	78.0	65.9	49.2	38.3	33.0	28.8	22.2	18.4	9.67
1.60V/cell	434.2	311.0	282.7	223.3	173.6	127.1	107.9	78.6	66.4	49.4	38.6	33.3	28.9	22.5	18.6	9.77

LP SERIES-GENERAL PURPOSE

LP12-90 (12V90Ah)



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

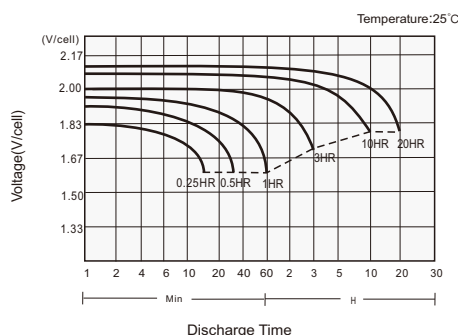
GENERAL FEATURES

- 10 years design life (25°C)
- 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

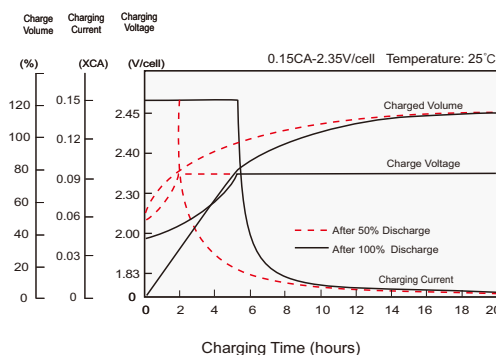
STANDARDS

- 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

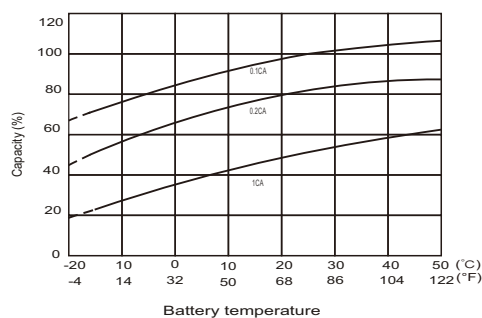
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

