



LP Series-General Purpose LP12-90(12V90Ah)

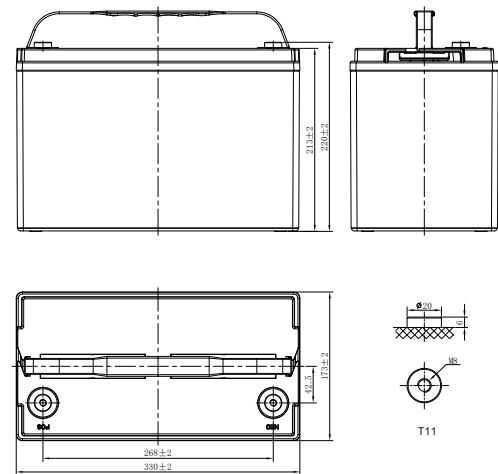


Specifications

Rated Voltage	12V	
Nominal Capacity	90.0Ah	(C ₁₀ , 1.80V/cell)
Dimension	Length	330±2mm (12.99 inches)
	Width	173±2mm (6.81 inches)
	Container Height	213±2mm (8.39 inches)
	Total Height	220±2mm (8.66 inches)
Approx Weight	27.8 Kg (61.3 lbs)	
Terminal	T11(M8)	
Container Material	ABS	
Rated Capacity (25°C)	99.0 Ah	(20hr, 4.95A, 1.80V/cell)
	90.0 Ah	(10hr, 9.00A, 1.80V/cell)
	82.0 Ah	(5hr, 16.4A, 1.75V/cell)
	74.7 Ah	(3hr, 24.9A, 1.75V/cell)
	57.4 Ah	(1hr, 57.4A, 1.60V/cell)
Max. Discharge Current	900A (5s)	
Internal Resistance (25°C)	Approx 5.5mΩ	
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 27.0A. Voltage 14.1V~14.4V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Initial Charging Current less than 27.0A. 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	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



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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

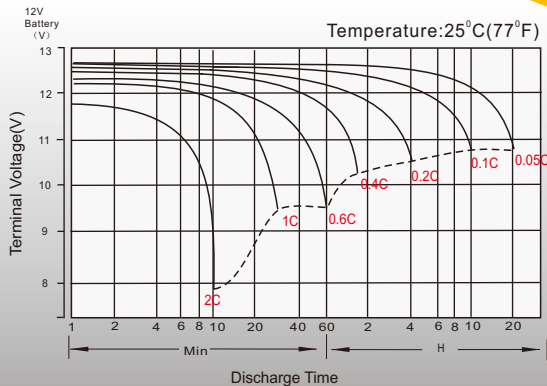
General Features

- 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

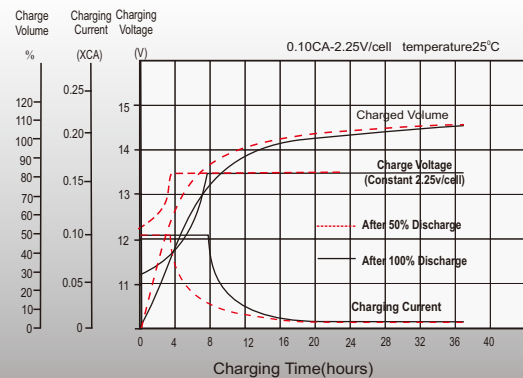
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch®IATF 16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities

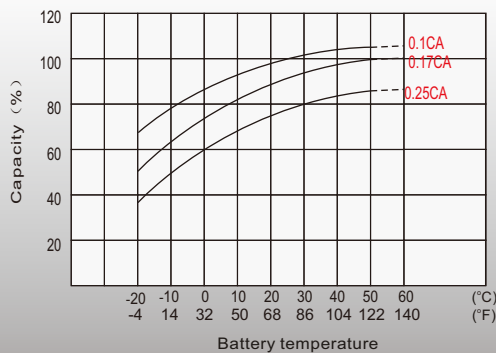
Discharge Characteristics



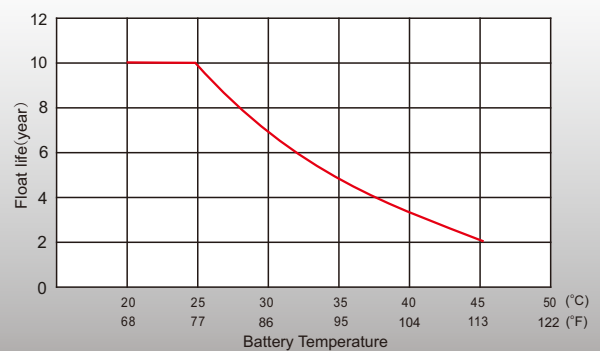
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Charging Temperature on Long Term Float Life



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