



# LP Series-General Purpose LP12-180(12V180Ah)

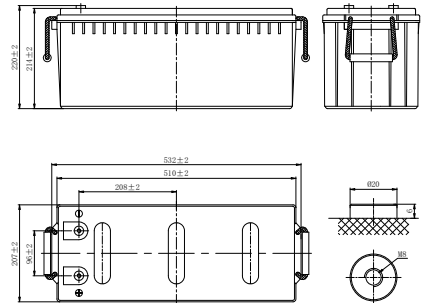


## Specifications

Rated Voltage	12V	
Nominal Capacity	180.0Ah	(C <sub>10</sub> , 1.80V/cell)
Dimension	Length	532±2mm (20.9 inches)
	Width	207±2mm (8.15 inches)
	Container Height	214±2mm (8.42 inches)
	Total Height	220±2mm (8.66 inches)
Approx Weight	51.0 Kg (112.4 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity (25°C)	189.0 Ah	(20hr, 9.45A, 1.80V/cell)
	180.0 Ah	(10hr, 18.0A, 1.80V/cell)
	164.0 Ah	(5hr, 32.8A, 1.75V/cell)
	149.1 Ah	(3hr, 49.7A, 1.75V/cell)
	114.8Ah	(1hr, 114.8A, 1.60V/cell)
Max. Discharge Current	1800A (5s)	
Internal Resistance (25°C)	Approx 3.5mΩ	
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 54.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 54.0A. 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	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	207.8	163.4	146.1	106.8	100.6	72.9	61.3	44.9	35.3	30.6	27.0	20.7	17.2	9.12
1.80V/cell	235.5	184.7	159.1	113.2	104.2	75.4	63.3	48.8	37.6	32.2	29.0	21.8	18.0	9.45
1.75V/cell	254.9	199.4	162.3	117.3	109.3	79.2	66.6	49.7	38.3	32.8	29.2	21.9	18.2	9.54
1.70V/cell	270.8	211.5	165.6	119.6	111.5	80.8	67.9	50.7	39.0	33.3	29.4	22.3	18.4	9.64
1.67V/cell	278.6	217.3	168.0	121.4	113.1	82.0	68.9	51.2	39.6	34.0	29.5	22.6	18.6	9.76
1.60V/cell	287.3	222.8	170.4	123.2	114.8	83.2	69.9	51.7	40.1	34.5	29.7	22.9	18.8	9.88

## 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	393.4	310.8	279.2	205.4	175.0	127.2	107.3	79.1	69.2	60.3	53.3	41.2	34.2	18.2
1.80V/cell	440.1	347.7	301.6	216.2	180.3	130.9	110.2	85.4	73.6	63.1	57.0	43.2	35.7	18.8
1.75V/cell	469.7	371.1	305.4	222.7	188.4	137.0	115.6	86.8	74.7	64.0	57.3	43.3	36.1	19.0
1.70V/cell	493.8	390.1	308.9	225.6	191.1	139.1	117.4	88.2	75.7	64.9	57.5	43.9	36.4	19.1
1.67V/cell	501.8	396.4	311.1	227.6	192.8	140.4	118.6	88.6	76.6	66.0	57.6	44.4	36.8	19.3
1.60V/cell	508.9	402.0	312.4	228.8	194.3	141.5	119.6	89.0	77.2	66.6	57.8	44.9	37.2	19.5



# LP Series-General Purpose LP12-180(12V180Ah)



## 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

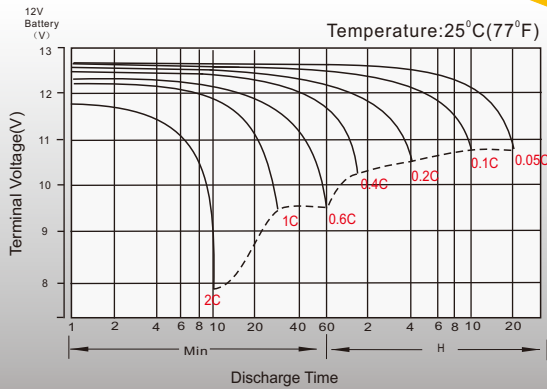
## General Features

- 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

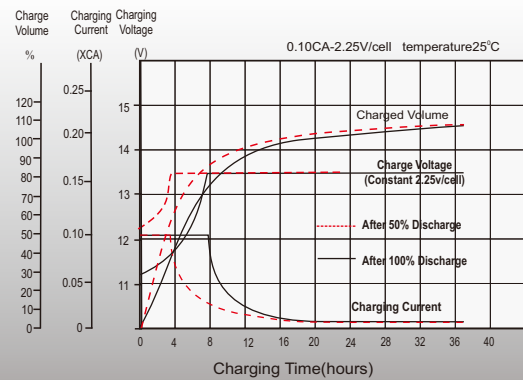
## Standards

- 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

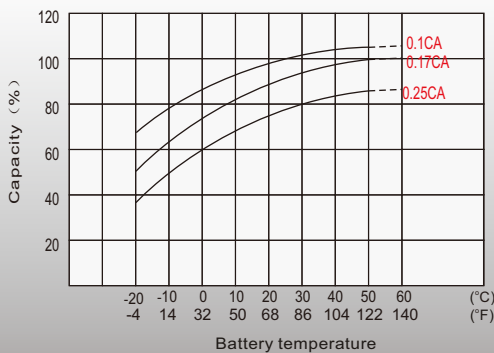
## Discharge Characteristics



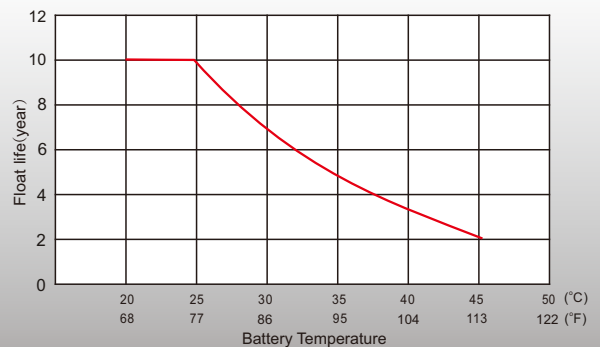
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



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