



# LP Series-General Purpose LP12-28(12V28Ah)

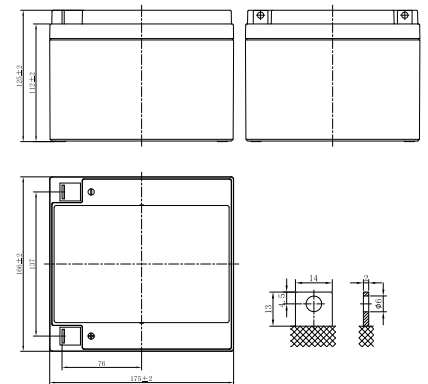


## Specifications

Rated Voltage	12V	
Nominal Capacity	28.0Ah	(C <sub>20</sub> , 1.75V/cell)
Dimension	Length	166±2mm (6.54 inches)
	Width	175±2mm (6.93 inches)
	Container Height	125±2mm (4.92 inches)
	Total Height	125±2mm (4.92 inches)
Approx Weight	8.4 Kg (18.5 lbs)	
Terminal	T3	
Container Material	ABS	
Rated Capacity (25°C)	28.0 Ah	(20hr, 1.40A, 1.75V/cell)
	26.3 Ah	(10hr, 2.63A, 1.75V/cell)
	23.9 Ah	(5hr, 4.78A, 1.75V/cell)
	21.2 Ah	(3hr, 7.08A, 1.75V/cell)
	18.2 Ah	(1hr, 18.2A, 1.60V/cell)
Max. Discharge Current	420A (5s)	
Internal Resistance (25°C)	Approx 14mΩ	
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 8.4A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use	
Effect of temp. to Capacity	Initial Charging Current less than 8.4A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
	40°C (104°F)	103%
	25°C (77°F)	100%
Self Discharge	0°C (32°F)	86%
	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	73.1	53.3	43.1	35.5	26.8	20.0	16.5	12.1	9.50	6.86	5.46	4.65	3.98	3.14	2.57	1.37
1.80V/cell	78.6	56.5	45.3	36.9	27.7	20.5	16.9	12.3	9.68	6.97	5.54	4.72	4.04	3.18	2.60	1.38
1.75V/cell	82.8	58.8	46.8	37.9	28.4	21.0	17.3	12.6	9.85	7.08	5.62	4.78	4.09	3.22	2.63	1.40
1.70V/cell	86.7	61.1	48.3	39.0	29.1	21.4	17.6	12.8	10.0	7.18	5.70	4.84	4.14	3.25	2.65	1.41
1.67V/cell	89.7	62.8	49.5	39.8	29.6	21.8	17.8	12.9	10.1	7.25	5.75	4.89	4.18	3.28	2.67	1.42
1.60V/cell	95.2	65.5	51.2	41.0	30.4	22.3	18.2	13.2	10.3	7.39	5.85	4.96	4.24	3.32	2.71	1.44

## 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	138.3	101.4	82.6	68.4	51.8	38.7	32.1	23.6	18.6	13.5	10.8	9.18	7.88	6.22	5.10	2.74
1.80V/cell	147.2	106.8	86.2	70.7	53.2	39.6	32.8	24.0	18.9	13.7	10.9	9.30	7.99	6.30	5.16	2.77
1.75V/cell	153.5	110.3	88.5	72.3	54.3	40.3	33.3	24.4	19.2	13.9	11.0	9.41	8.07	6.37	5.21	2.80
1.70V/cell	159.1	113.9	90.9	74.0	55.5	41.1	33.8	24.8	19.4	14.0	11.2	9.52	8.16	6.43	5.26	2.82
1.67V/cell	163.3	116.5	92.8	75.3	56.3	41.6	34.3	25.0	19.6	14.2	11.3	9.59	8.23	6.47	5.29	2.84
1.60V/cell	169.9	119.9	95.4	77.2	57.6	42.4	34.9	25.5	19.9	14.4	11.4	9.72	8.32	6.56	5.36	2.88



# LP Series-General Purpose LP12-28(12V28Ah)



## 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

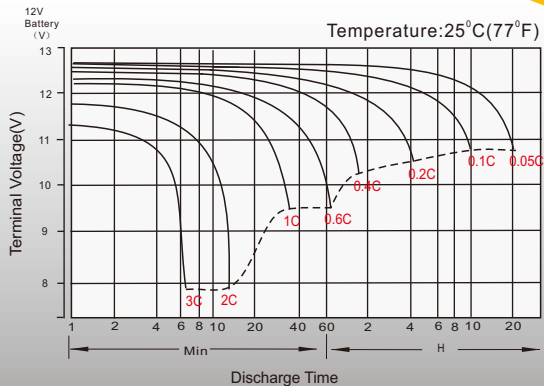
## General Features

- 5 years design life(25°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

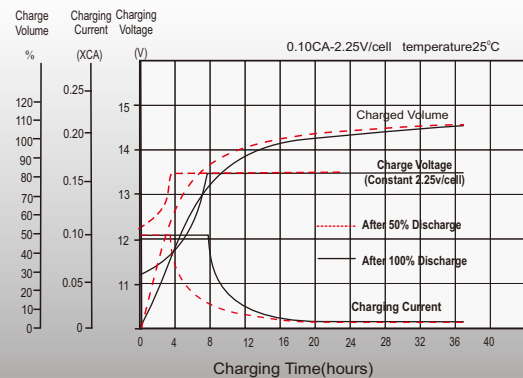
## Standards

- 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

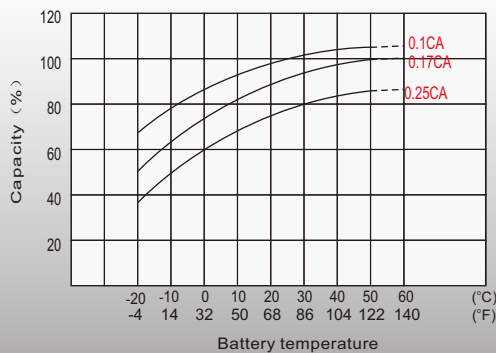
## Discharge Characteristics



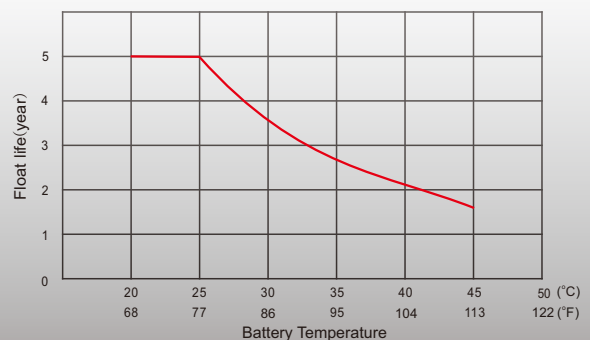
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Float Service Life



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