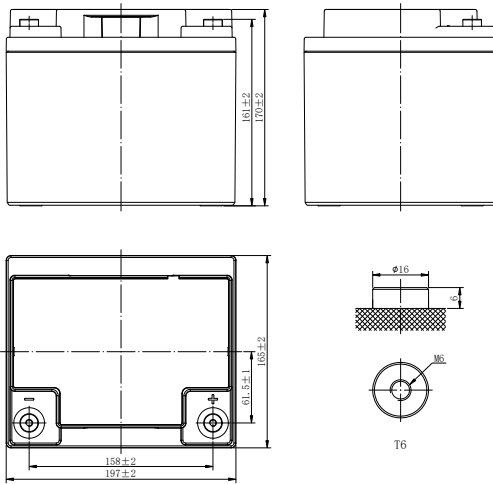
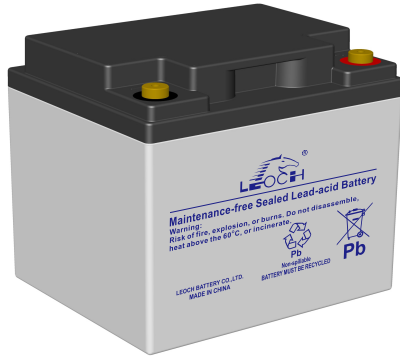


# LP SERIES-GENERAL PURPOSE

## LP12-45 (12V45Ah)



### CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C <sub>10</sub> , 1.80V/cell	45Ah
Dimension	Length	197mm (7.76inches)
	Width	165mm (6.50inches)
	Container Height	170mm (6.69inches)
	Total Height	170mm (6.69inches)
Approx Weight	14.2kg (31.3lbs)	
Terminal	T6(M6)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	1125A	
Internal Resistance (25°C)	Approx 9 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%
	≤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.	
Self Discharge		

### 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	93.7	69.9	58.2	48.9	37.6	28.1	23.7	17.8	14.2	10.7	8.55	7.15	6.21	5.04	4.22	2.26
1.80V/cell	109.2	82.4	67.7	56.4	42.5	31.4	26.2	19.5	15.5	11.6	9.22	7.70	6.66	5.40	4.50	2.39
1.75V/cell	119.1	88.4	71.6	59.2	44.4	32.7	27.2	20.1	16.0	11.9	9.45	7.88	6.80	5.50	4.57	2.42
1.70V/cell	129.0	94.3	75.7	62.3	46.4	33.9	28.2	20.8	16.5	12.3	9.69	8.05	6.94	5.60	4.64	2.45
1.67V/cell	134.7	97.7	78.1	64.0	47.6	34.7	28.8	21.2	16.7	12.5	9.82	8.15	7.02	5.65	4.68	2.46
1.60V/cell	148.5	105.8	83.7	68.2	50.3	36.5	30.2	22.1	17.4	12.9	10.1	8.40	7.22	5.79	4.78	2.51
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	178.0	133.8	111.9	94.3	72.7	54.4	46.1	34.7	27.8	21.0	16.8	14.1	12.2	10.0	8.34	4.49
1.80V/cell	204.3	155.9	128.7	107.6	81.5	60.4	50.7	37.7	30.1	22.7	18.1	15.1	13.1	10.6	8.89	4.74
1.75V/cell	219.5	165.2	134.8	111.8	84.5	62.4	52.2	38.8	30.9	23.2	18.4	15.4	13.3	10.8	9.02	4.79
1.70V/cell	233.9	173.8	140.8	116.5	87.4	64.2	53.7	39.8	31.7	23.8	18.8	15.7	13.6	11.0	9.14	4.85
1.67V/cell	241.9	178.8	145.6	119.0	89.1	65.4	54.6	40.4	32.1	24.0	19.0	15.9	13.7	11.1	9.21	4.88
1.60V/cell	259.9	189.5	151.9	124.8	92.9	68.0	56.7	41.8	33.2	24.8	19.6	16.3	14.0	11.3	9.38	4.97

# LP SERIES-GENERAL PURPOSE

## LP12-45 (12V45Ah)



### 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

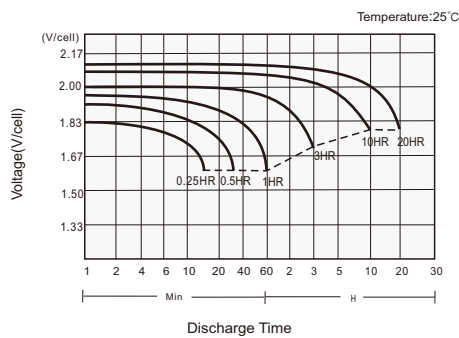
### GENERAL FEATURES

- 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

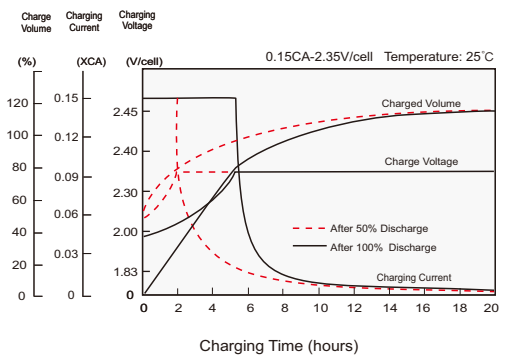
### STANDARDS

- 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

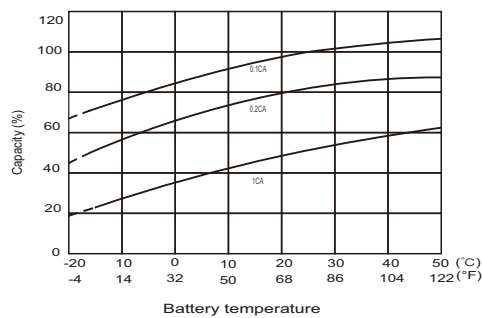
#### Discharge Characteristics



#### Charging Characteristics



#### Effects of Temperature on Capacity



#### Self Discharge Characteristics

