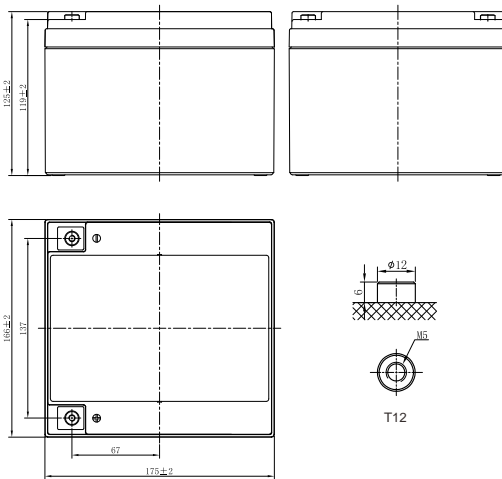


# LP SERIES-GENERAL PURPOSE

## LP12-28 (12V28Ah)



### CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	$C_{20}, 1.75V/cell$	28Ah
Dimension	Length	166mm (6.54inches)
	Width	175mm (6.89inches)
	Container Height	125mm (4.92inches)
	Total Height	125mm (4.92inches)
Approx Weight	8.2kg (18.1lbs)	
Terminal	T12/T12-I(M5)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	700A	
Internal Resistance (25°C)	Approx 11 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	2.35-2.45V/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	84.0	57.6	44.8	37.1	27.8	20.3	16.7	12.2	9.58	6.92	5.51	4.69	4.02	3.16	2.57	1.37
1.80V/cell	90.3	61.0	47.0	38.6	28.7	20.9	17.1	12.5	9.76	7.03	5.59	4.76	4.08	3.21	2.60	1.39
1.75V/cell	85.1	63.5	48.6	39.7	29.4	21.3	17.4	12.7	9.94	7.14	5.67	4.82	4.13	3.25	2.63	1.40
1.70V/cell	99.6	66.0	50.2	40.8	30.2	21.8	17.7	12.9	10.1	7.25	5.75	4.89	4.18	3.28	2.65	1.41
1.67V/cell	103.1	67.9	51.4	41.7	30.7	22.2	18.0	13.1	10.2	7.32	5.80	4.93	4.21	3.31	2.67	1.42
1.60V/cell	109.4	70.7	53.2	42.9	31.5	22.7	18.4	13.3	10.4	7.45	5.90	5.01	4.27	3.35	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	158.8	109.6	85.8	71.5	53.8	39.4	32.4	23.8	18.8	13.6	10.9	9.26	7.95	6.27	5.10	2.74
1.80V/cell	169.2	115.3	89.5	73.9	55.2	40.4	33.1	24.2	19.1	13.8	11.0	9.38	8.06	6.36	5.16	2.77
1.75V/cell	176.3	119.1	91.9	75.6	56.4	41.1	33.6	24.6	19.4	14.0	11.1	9.49	8.14	6.42	5.21	2.80
1.70V/cell	182.8	123.0	94.4	77.4	57.5	41.8	34.1	25.0	19.6	14.2	11.3	9.61	8.23	6.48	5.26	2.82
1.67V/cell	187.6	125.8	96.4	78.8	58.4	42.4	34.6	25.2	19.8	14.3	11.4	9.68	8.30	6.53	5.29	2.85
1.60V/cell	195.2	129.5	99.0	80.7	59.7	43.2	35.2	25.7	20.1	14.5	11.5	9.81	8.40	6.62	5.36	2.88

# LP SERIES-GENERAL PURPOSE

## LP12-28 (12V28Ah)



### APPLICATIONS

- 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

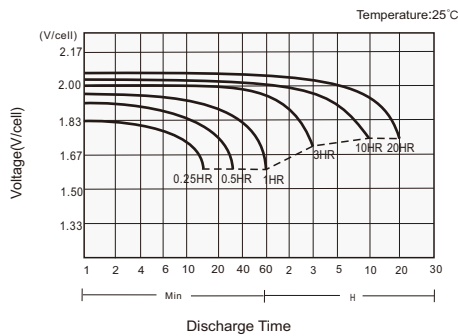
### GENERAL FEATURES

- 5 years design life (25°C)
- 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

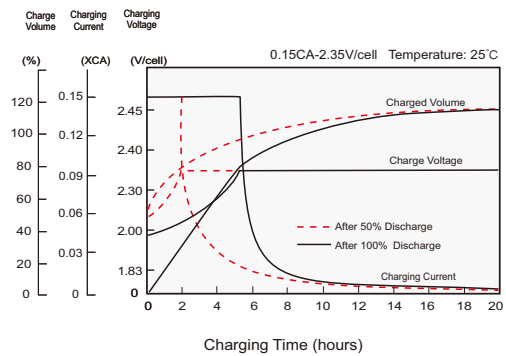
### STANDARDS

- 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

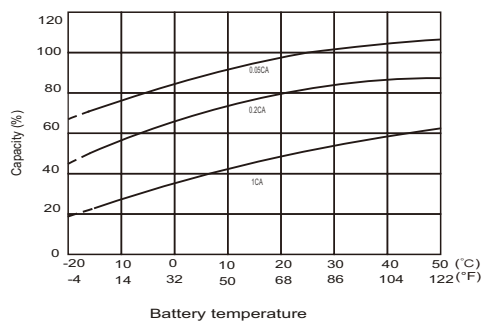
#### Discharge Characteristics



#### Charging Characteristics



#### Effects of Temperature on Capacity



#### Self Discharge Characteristics

