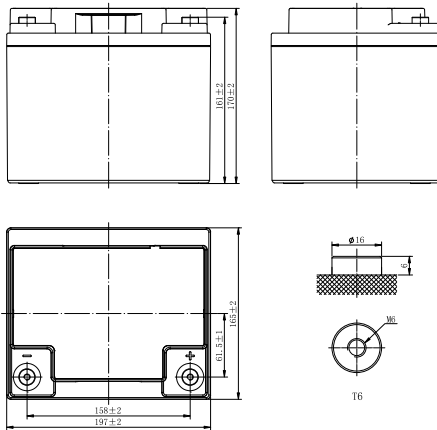


LPL SERIES-LONG LIFE STANDBY

LPL12-28 (12V32Ah)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C ₁₀ , 1.80V/cell	32Ah
Dimension	Length	197mm (7.76inches)
	Width	165mm (6.50inches)
	Container Height	170mm (6.69inches)
	Total Height	170mm (6.69inches)
Approx Weight	12.7kg (28.0lbs)	
Terminal	T6(M6)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	800A	
Internal Resistance (25°C)	Approx 10 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). LPL 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	66.6	49.7	41.4	34.8	26.8	20.0	16.8	12.6	10.1	7.40	6.08	5.09	4.41	3.59	3.00	1.63
1.80V/cell	77.6	58.6	48.2	40.1	30.2	22.3	18.7	13.8	11.0	8.00	6.56	5.47	4.73	3.84	3.20	1.71
1.75V/cell	84.7	62.9	50.9	42.1	31.6	23.2	19.4	14.3	11.4	8.24	6.72	5.60	4.83	3.91	3.25	1.75
1.70V/cell	91.8	67.0	53.8	44.3	33.0	24.1	20.0	14.8	11.7	8.48	6.89	5.73	4.93	3.98	3.30	1.76
1.67V/cell	95.8	69.5	55.5	45.6	33.9	24.7	20.5	15.1	11.9	8.56	6.98	5.80	4.99	4.02	3.33	1.78
1.60V/cell	105.6	75.2	59.5	48.5	35.7	25.9	21.5	15.7	12.4	8.89	7.22	5.98	5.14	4.12	3.40	1.80
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	126.5	95.2	79.5	67.1	51.7	38.8	32.7	24.6	19.8	14.5	12.0	10.0	8.70	7.10	5.94	3.24
1.80V/cell	145.2	110.9	91.6	76.6	57.9	42.9	36.1	26.8	21.3	15.7	12.8	10.8	9.30	7.57	6.32	3.40
1.75V/cell	156.1	117.5	95.7	79.5	60.1	44.3	37.1	27.5	22.0	16.0	13.1	10.9	9.50	7.70	6.41	3.47
1.70V/cell	166.3	123.6	100.1	82.9	62.1	45.7	38.2	28.3	22.6	16.4	13.4	11.2	9.70	7.81	6.50	3.49
1.67V/cell	171.9	127.2	103.6	84.7	63.4	46.5	38.9	28.8	22.9	16.6	13.6	11.3	9.80	7.89	6.56	3.53
1.60V/cell	184.8	134.7	108.0	88.7	66.1	48.3	40.4	29.6	23.6	17.0	13.9	11.6	10.00	8.05	6.67	3.56

Constant Current Discharge (Amperes) at 20°C (68°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	63.4	47.3	39.4	33.1	25.5	19.0	16.0	12.2	9.81	7.18	5.90	4.94	4.28	3.49	2.91	1.58
1.80V/cell	73.9	55.8	45.8	38.2	28.7	21.2	17.8	13.4	10.7	7.76	6.37	5.31	4.59	3.72	3.11	1.66
1.75V/cell	80.7	59.9	48.5	40.1	30.1	22.1	18.5	13.9	11.1	8.00	6.52	5.44	4.69	3.80	3.16	1.70
1.70V/cell	87.4	63.8	51.1	42.2	31.4	23.0	19.0	14.4	11.3	8.23	6.69	5.56	4.79	3.86	3.20	1.71
1.67V/cell	91.2	66.2	52.9	43.4	32.3	23.5	19.5	14.7	11.6	8.31	6.78	5.63	4.84	3.90	3.23	1.73
1.60V/cell	100.6	71.6	56.7	46.2	34.0	24.7	20.5	15.2	12.0	8.63	7.01	5.81	4.99	4.00	3.30	1.75

Constant Power Discharge (Watts/cell) at 20°C (68°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	120.5	90.7	75.7	63.9	49.2	37.0	31.1	23.9	19.2	14.1	11.7	9.71	8.45	6.89	5.77	3.15
1.80V/cell	138.3	105.6	87.2	73.0	55.1	40.9	34.4	26.0	20.7	15.2	12.4	10.5	9.03	7.35	6.14	3.30
1.75V/cell	148.7	111.9	91.1	75.7	57.2	42.2	35.3	26.7	21.4	15.5	12.7	10.6	9.22	7.48	6.22	3.37
1.70V/cell	158.4	117.7	95.3	79.0	59.1	43.5	36.4	27.5	21.9	15.9	13.0	10.9	9.42	7.58	6.31	3.39
1.67V/cell	163.7	121.1	98.7	80.7	60.4	44.3	37.0	28.0	22.2	16.1	13.2	11.0	9.51	7.66	6.37	3.43
1.60V/cell	176.0	128.3	102.9	84.5	63.0	46.0	38.5	28.7	22.9	16.5	13.5	11.3	9.71	7.82	6.48	3.46

APPLICATIONS

- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

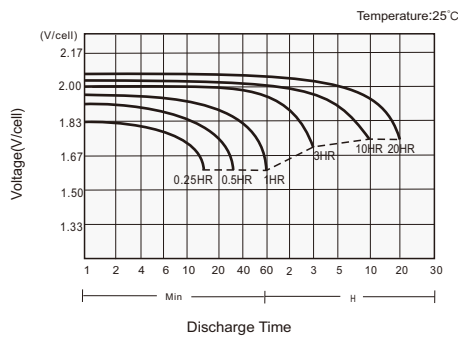
GENERAL FEATURES

- 10~12 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

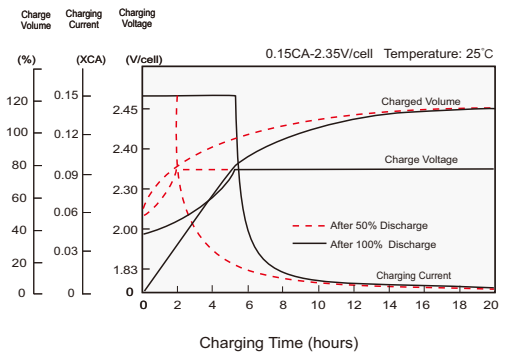
STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- Classified as "Very Long Life" according to Eurobat
- UL, CE Approved
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

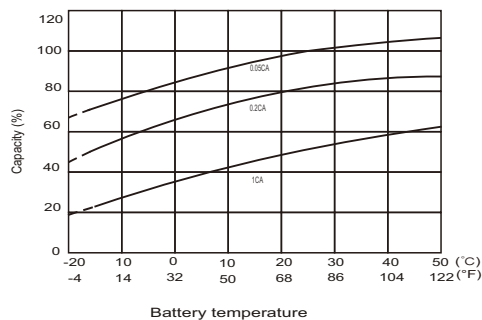
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

