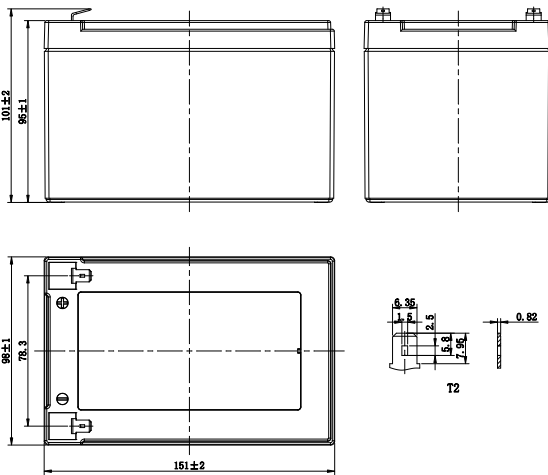


LCP SERIES-PUNCH BATTERY

LCP12-40W (12V40W)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Rate (25°C)	$W_{15}, 1.67V/cell$	40W/cell
Nominal Capacity (25°C)	$C_{20}, 1.75V/cell$	12Ah
Dimension	Length	151mm (5.94inches)
	Width	88mm (3.86inches)
	Container Height	95mm (3.74inches)
	Total Height	101mm (3.98inches)
Approx Weight	3.38kg (7.45lbs)	
Terminal	T1/T2	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	336A	
Internal Resistance (25°C)	Approx 18 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). LCP 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	30.6	22.7	18.1	14.8	11.0	8.07	6.59	4.81	3.82	2.91	2.34	1.99	1.70	1.34	1.09	0.587
1.80V/cell	33.2	23.9	18.8	15.2	11.3	8.23	6.72	4.90	3.88	2.95	2.37	2.01	1.72	1.35	1.10	0.594
1.75V/cell	35.9	25.1	19.5	15.7	11.5	8.39	6.84	4.98	3.94	3.00	2.40	2.04	1.74	1.37	1.12	0.600
1.70V/cell	38.6	26.2	20.2	16.2	11.8	8.55	6.96	5.06	4.01	3.04	2.43	2.07	1.77	1.39	1.13	0.606
1.67V/cell	40.2	26.9	20.6	16.4	12.0	8.65	7.03	5.11	4.04	3.07	2.45	2.08	1.78	1.40	1.14	0.609
1.60V/cell	43.7	28.6	21.6	17.1	12.3	8.88	7.20	5.22	4.12	3.13	2.50	2.12	1.81	1.42	1.16	0.618
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	58.2	43.5	35.8	28.4	21.2	15.7	12.8	9.40	7.49	5.72	4.60	3.92	3.36	2.65	2.17	1.17
1.80V/cell	62.7	45.4	37.0	29.2	21.7	15.9	13.0	9.50	7.58	5.79	4.66	3.97	3.40	2.68	2.19	1.19
1.75V/cell	67.3	47.4	38.1	29.9	22.1	16.2	13.2	9.70	7.68	5.87	4.72	4.02	3.44	2.71	2.22	1.20
1.70V/cell	71.8	49.3	39.3	30.7	22.5	16.4	13.4	9.80	7.78	5.94	4.77	4.06	3.48	2.74	2.24	1.21
1.67V/cell	74.6	50.5	40.0	31.1	22.8	16.6	13.5	9.90	7.84	5.98	4.80	4.09	3.50	2.76	2.26	1.22
1.60V/cell	80.4	53.1	41.5	32.1	23.3	16.9	13.8	10.0	7.97	6.08	4.88	4.15	3.56	2.80	2.29	1.24

LCP SERIES-PUNCH BATTERY

LCP12-40W (12V40W)



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

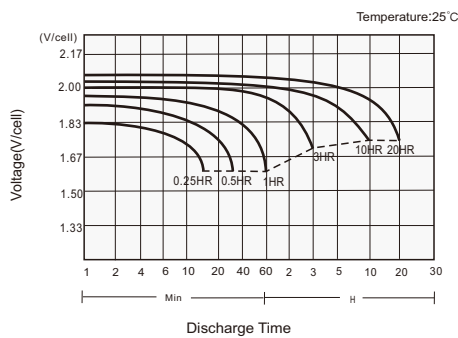
GENERAL FEATURES

- 5 years design life (25°C)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Automatic grid punch manufacturing process and unique technology optimizes power capacity, cell consistency, and long-term reliability and service life

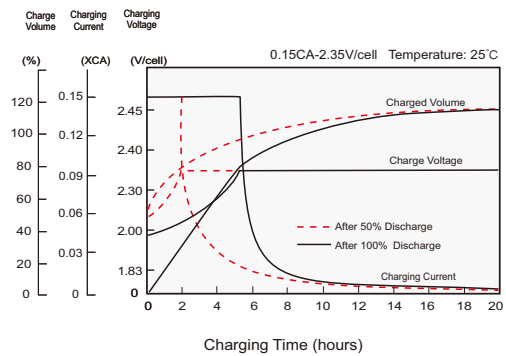
STANDARDS

- 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

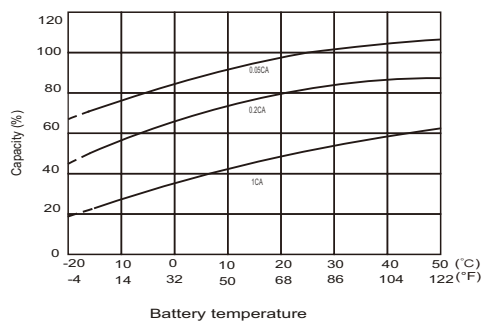
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

