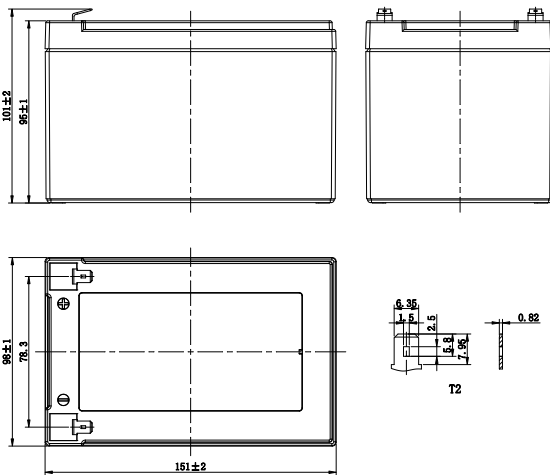


LCP SERIES-PUNCH BATTERY

LCP12-50W (12V50W)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Rate (25°C)	W ₁₅ , 1.67V/cell	50W/cell
Nominal Capacity (25°C)	C ₂₀ , 1.75V/cell	14Ah
Dimension	Length	151mm (5.94inches)
	Width	98mm (3.86inches)
	Container Height	95mm (3.74inches)
	Total Height	101mm (3.98inches)
Approx Weight	3.58kg (7.89lbs)	
Terminal	T1/T2	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	392A	
Internal Resistance (25°C)	Approx 16 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	44.2	30.3	23.6	19.2	13.9	10.2	8.33	6.10	4.79	3.46	2.76	2.35	2.01	1.58	1.29	0.684
1.80V/cell	47.5	32.1	24.7	19.9	14.3	10.4	8.53	6.23	4.88	3.52	2.80	2.38	2.04	1.60	1.31	0.692
1.75V/cell	50.0	33.4	25.5	20.5	14.7	10.7	8.70	6.34	4.97	3.57	2.83	2.41	2.06	1.62	1.32	0.700
1.70V/cell	52.4	34.7	26.4	21.1	15.1	10.9	8.86	6.45	5.04	3.62	2.87	2.44	2.09	1.64	1.34	0.706
1.67V/cell	54.2	35.7	27.0	21.5	15.3	11.1	9.00	6.53	5.10	3.66	2.90	2.46	2.11	1.65	1.35	0.711
1.60V/cell	57.5	37.2	28.0	22.2	15.8	11.4	9.20	6.67	5.20	3.73	2.95	2.50	2.14	1.68	1.36	0.719
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	83.5	57.6	45.1	36.9	26.9	19.7	16.2	11.9	9.38	6.80	5.43	4.63	3.97	3.14	2.57	1.37
1.80V/cell	89.0	60.7	47.1	38.2	27.6	20.2	16.5	12.1	9.53	6.90	5.50	4.69	4.03	3.18	2.60	1.38
1.75V/cell	92.7	62.6	48.3	39.0	28.2	20.5	16.8	12.3	9.68	6.99	5.57	4.74	4.07	3.21	2.63	1.40
1.70V/cell	96.1	64.7	49.6	39.9	28.8	20.9	17.1	12.5	9.80	7.08	5.63	4.80	4.11	3.24	2.65	1.41
1.67V/cell	98.7	66.2	50.7	40.7	29.2	21.2	17.3	12.6	9.89	7.14	5.68	4.84	4.15	3.27	2.67	1.42
1.60V/cell	102.7	68.1	52.1	41.7	29.8	21.6	17.6	12.8	10.1	7.25	5.76	4.90	4.20	3.31	2.70	1.44

LCP SERIES-PUNCH BATTERY

LCP12-50W (12V50W)



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

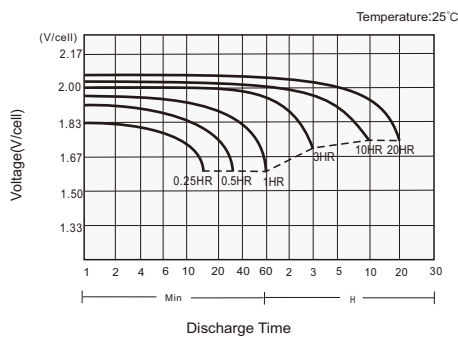
GENERAL FEATURES

- 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

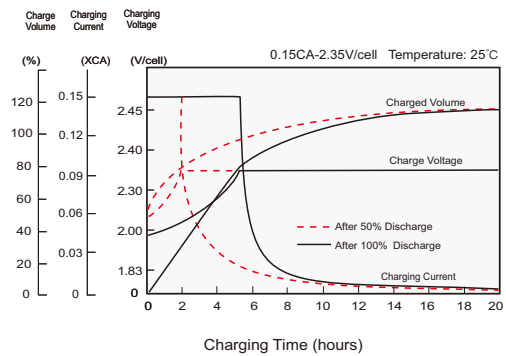
STANDARDS

- 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

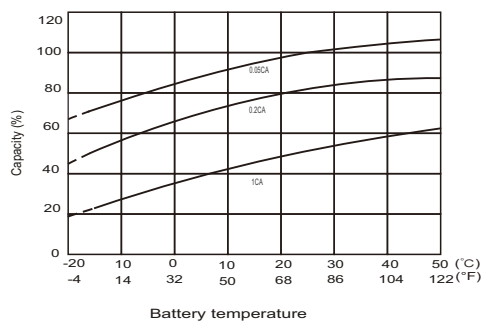
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

