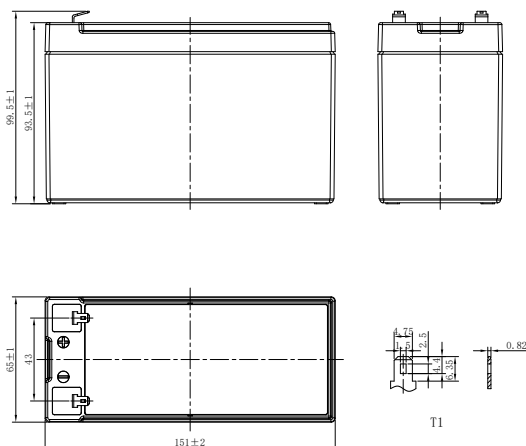


LCP SERIES-PUNCH BATTERY

LCP12-28W (12V28W)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Rate (25°C)	$W_{15}, 1.67V/cell$	28W/cell
Nominal Capacity (25°C)	$C_{20}, 1.75V/cell$	7.5Ah
Dimension	Length	151mm (5.94inches)
	Width	65mm (2.56inches)
	Container Height	93.5mm (3.68inches)
	Total Height	99.5mm (3.92inches)
Approx Weight	2.17kg (4.78lbs)	
Terminal	T1/T2	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	210A	
Internal Resistance (25°C)	Approx 29 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%
Self Discharge	≤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.	

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	22.8	15.5	11.5	9.40	6.92	5.06	4.43	3.25	2.57	1.85	1.48	1.26	1.08	0.850	0.693	0.367
1.80V/cell	24.6	16.4	12.1	9.78	7.14	5.20	4.54	3.31	2.62	1.88	1.50	1.27	1.09	0.860	0.702	0.371
1.75V/cell	25.9	17.0	12.5	10.1	7.32	5.31	4.63	3.37	2.66	1.91	1.52	1.29	1.11	0.870	0.709	0.375
1.70V/cell	27.1	17.7	12.9	10.4	7.51	5.43	4.72	3.43	2.70	1.94	1.54	1.31	1.12	0.880	0.717	0.378
1.67V/cell	28.0	18.2	13.2	10.6	7.64	5.52	4.79	3.48	2.73	1.96	1.55	1.32	1.13	0.890	0.722	0.381
1.60V/cell	29.7	19.0	13.6	10.9	7.85	6.65	4.90	3.55	2.79	2.00	1.58	1.34	1.14	0.900	0.731	0.385
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	46.2	31.5	24.9	19.4	14.3	10.5	8.62	6.34	5.03	3.64	2.91	2.48	2.13	1.68	1.38	0.733
1.80V/cell	49.2	33.1	26.0	20.0	14.7	10.7	8.80	6.45	5.11	3.69	2.95	2.51	2.16	1.70	1.40	0.742
1.75V/cell	51.3	34.2	26.7	20.5	15.0	10.9	8.95	6.55	5.19	3.74	2.98	2.54	2.18	1.72	1.41	0.750
1.70V/cell	53.2	35.3	27.4	21.0	15.3	11.1	9.08	6.64	5.25	3.79	3.02	2.57	2.20	1.74	1.42	0.756
1.67V/cell	54.5	36.1	28.0	21.3	15.5	11.3	9.20	6.71	5.30	3.82	3.04	2.59	2.22	1.75	1.43	0.762
1.60V/cell	56.8	37.2	28.8	21.9	15.9	11.5	9.37	6.83	5.38	3.88	3.09	2.63	2.25	1.77	1.45	0.770

LCP SERIES-PUNCH BATTERY

LCP12-28W (12V28W)



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

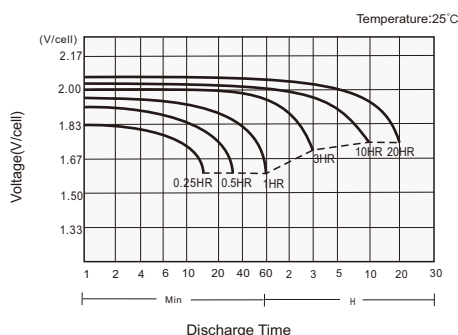
GENERAL FEATURES

- 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

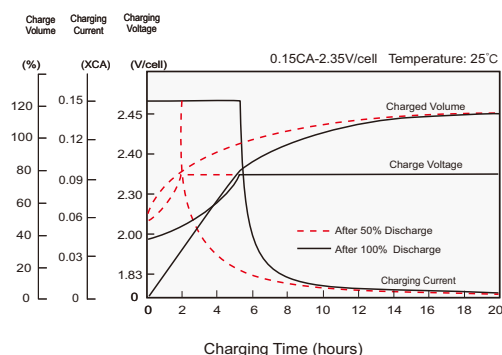
STANDARDS

- 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

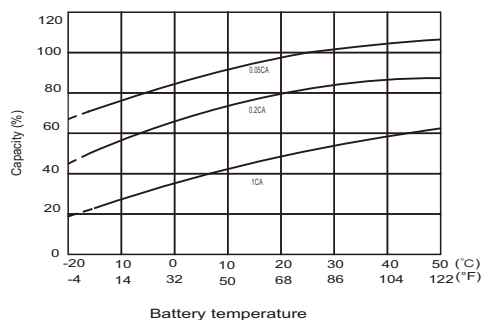
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

