



THROUGH CARING WE LEAD
FIRST NATIONAL BATTERY
INDUSTRIAL (Pty) Ltd



Planté Cells



ISO 14001
ISO 9001: 2000
ISO/TS 16949: 2002

Complies with: IEC 60896-1 and BS 6290

Product and Service Benefits

- Locally-Manufactured Range
- Premier Quality
Conforms to BS 6290 1984 and IEC standards and manufactured to ISO 9001:2000 quality standards.
- Nationwide After-Sales Support
Countrywide network of branches and agencies, with access to information to ensure sound technical backup.
- Proven Reliability
Used successfully, achieving claimed life, in numerous applications.
- Customer Care
Every Chloride standby cell carries a comprehensive product warranty backed by the industry leader and supported by a national distributor network.

Design Features

Designed for all standby duties including power stations, telephone exchanges, switchgear operation, telecommunications, emergency lighting and diesel starting.

Noteworthy advantages of these cells are:

- ease of inspection, test and maintenance (a hydrometer reading indicates the state of charge)
- lower internal resistance which provides increased performance at high rates of discharge.
- no falling-off of capacity with age.
- life expectancy of 20 years or longer.
- designed for float-charge operation, always ready for use.

POSITIVE PLATES are 8mm thick pure lead grids for longer life and to provide sufficient material to ensure that there is no fall-off of capacity throughout the life of the cell.

NEGATIVE PLATES are of industrial pasted grid construction, for balanced performance and life.

SEPARATORS made of microporous rubber, for exceptionally long life and have high degree of porosity, ensuring minimum internal resistance.

VISUAL INSPECTION CONTAINERS, moulded from transparent styrene acrylonitrile (SAN) to provide optimum transparency and very high insulating qualities, eliminating the need for separate cell insulators

CELL LIDS . Moulded from opaque SAN and permanently sealed to the container.

VENT PLUGS are of a special design which effectively returns all acid spray to the cell, but allows free exit of oxygen and hydrogen gases.

Technical Details

VOLTAGE

The nominal voltage is 2 volts per cell, i.e. a nominal 110V battery will have 55 cells. On discharge, the recommended final voltage at which the discharge should be terminated depends on the discharge rate. For example, discharge curves indicate that the final voltage for the three hour rate of discharge is 1.8 volts. It is not recommended to continue discharging the cells once the final voltage has been reached as the voltage will fall away at an increasing rate with minimal gain of discharge duration and the risk of over-discharge.

CAPACITY

The capacity of these cells is normally rated at the 10hour rate of discharge although the capacity which can be taken from a cell will vary the discharge rate, as indicated in the capacity table. Capacity is also affected by temperature.

FLOAT CHARGING

As these cells are designed for standby applications they should be float charged to ensure that they remain fully charged, ready for instant use, at all times. Correct float voltage settings may vary depending upon operational difference but as a guideline 2.25 volts per cell at 25°C may be used as a level of charge which will minimise the need for equalising charges whilst providing acceptable life. The installation and maintenance manual should be read for further information . A simply hydrometer reading indicates the state of charge. A fully charged cell will have a specific gravity of 1.210.

RECHARGING

The cell's ampere hour efficiency is 90%. To fully recharge the cells the amount of charge required is equal to the amount of discharge in ampere hours plus 11%.

INSTALLATION

These cells can be connected either edge to edge or face to face. The standard method of connection is to follow the shortest distance between two terminals.



Planté, Capacities, Weights And Dimensions

Type	Capacity in ampere-hours at 25° when discharged in			Initial Charge Current	Weight		Approx. quantity of acid 1.210sg	External dimensions of cell container			Overall height of cells	Centres of cells	Width of single row stillage or stand	Width of double row stillage or stand
	10 Hrs	3 Hrs	1 Hr		Cell compl. filled	Acid only 1.210sg		Length	Width	Height				
Final voltage	1.85	1.80	1.75	Amps	Kg	Kg	Litres	mm	mm	mm	mm	mm	mm	mm
ZAP 5	16	13	9.8	1	3.8	1.16	0.96	76	133	212	260	83	330	508
ZAP 9	32	26	19.5	2	6.3	1.89	1.56	114	133	212	260	121	330	508
ZAP 13	48	38.5	29.5	3	10	3.4	2.83	190	133	212	260	140	388	666
ZAP 17	64	52	39	4	11.45	3.25	2.68	190	133	212	260	140	388	666
ZAP 21	80	64	49	5	13.6	3.8	3.16	228	133	212	260	140	388	666
ZCP 9	107	86	65	7	18.6	5.5	4.5	134	203	349	423	140	400	710
ZCP 11	134	107	82	8.5	22.2	7.5	6.2	172	203	349	423	178	400	710
ZCP 13	161	129	98	10	24.9	7.2	5.9	172	203	349	423	178	400	710
ZCP 17	214	172	131	14	30.6	8.7	7.2	210	203	349	423	209	406	662
ZCP 21	268	215	163	17	36.9	10.4	8.6	248	203	349	423	209	426	742
ZCP 25	322	258	196	21	43.4	12.1	10.0	286	203	349	423	209	464	818
ZCP 29	375	301	229	24	54.4	16.2	13.4	362	203	349	423	209	542	974
ZCP 33	429	344	262	28	58.4	15.5	12.8	362	203	349	423	209	542	974
ZCP 35	455	365	278	32	60.4	15.1	12.1	362	203	349	423	209	542	974
ZHP 11	536	438	327	35	95.2	32.2	27.1	230	368	592	682	240	370	969
ZHP 13	643	526	392	42	106.2	30.6	25.7	230	368	592	682	240	370	969
ZHP 15	750	614	458	49	133.5	45.3	38.1	306	368	592	682	315	370	969
ZHP 17	858	702	523	56	144.5	43.7	36.7	306	368	592	682	315	370	969
ZHP 19	965	789	589	63	155.5	42.1	35.4	306	368	592	682	315	370	969
ZHP 21	1072	877	654	70	179.3	53.3	44.8	357	368	592	682	379	360	949
ZHP 23	1179	965	719	77	190.4	51.8	43.5	357	368	592	682	379	360	949
ZHP 25	1286	1052	785	84	218.0	68.8	56.1	433	368	592	682	379	435	1099
ZHP 27	1394	1140	850	91	229.0	65.2	54.8	433	368	592	682	379	435	1099
ZHP 29	1501	1228	915	98	240.1	63.7	53.5	433	368	592	682	379	435	1099
ZHP 31	1608	1315	981	105	268.3	79.3	66.6	509	368	592	682	379	510	1249
ZHP 33	1715	1403	1046	112	279.2	77.6	65.2	509	368	592	682	379	510	1249
ZHP 35	1822	1491	1112	119	290.2	76.0	63.9	509	368	592	682	379	510	1249
ZHP 37	1930	1578	1177	126	318.2	91.4	76.8	585	368	592	682	379	586	1401
ZHP 39	2037	1666	1242	133	329.2	89.8	75.5	585	368	592	682	379	586	1401
ZHP 41	2144	1754	1308	140	340.2	88.2	74.1	585	368	592	682	379	586	1401

The length of a stand is n x cell centre where n is the number of cells in a row.

First National Battery

ESTABLISHED IN 1931, FIRST NATIONAL BATTERY IS A LEADING MANUFACTURER OF LEAD ACID BATTERIES IN SOUTH AFRICA.

THE COMPANY PRODUCES MORE THAN 2 000 000 BATTERIES ANNUALLY TO PROVIDE ELECTRICAL POWER FOR PASSENGER CARS, TRUCKS, TRACTORS, FORKLIFT TRUCKS, BOATS, RAILWAY LOCOMOTIVES AND COACHES, UNDERGROUND LOCOMOTIVES AND MINERS' CAP LAMPS, POWER STATIONS, SWITCH YARDS, FARM LIGHTING, SOLAR SYSTEMS, COMPUTERS, TELECOMMUNICATIONS EQUIPMENT ... AND A HOST OF OTHER USES.

FIRST NATIONAL BATTERY ACKNOWLEDGES THAT SUPERIOR TECHNOLOGY, CONSISTENT PRODUCT QUALITY AND DEDICATED CUSTOMER SERVICE ARE MINIMUM REQUIREMENTS TO ENABLE THE COMPANY TO MAINTAIN ITS POSITION AS AN INDUSTRY LEADER.

THE COMPANY'S VALUES ARE REPRESENTED BY ITS MOTTO: THROUGH CARING WE LEAD
PROOF OF THESE VALUES IS TO BE FOUND IN THE MANY PRODUCT AND SERVICE QUALITY AWARDS AND CERTIFICATES PRESENTED TO FIRST NATIONAL BATTERY OVER MANY YEARS OF SERVICE TO BATTERY USERS.

4 DEDICATED MANUFACTURING SITES

BUFFALO VIEW ROAD, EAST LONDON 6 000M² FACTORY
ISO 9001: 2000 AND ISO 14001 CERTIFIED
INDUSTRIAL BATTERY MANUFACTURING
FORKTRUCK BATTERIES: STANDBY BATTERIES: MINING BATTERIES

SETTLERS WAY, EAST LONDON 9 200M² FACTORY
ISO/TS 16949:2002 AND ISO 14001 CERTIFIED
AUTOMOTIVE BATTERY MANUFACTURING
7 000 BATTERIES PER DAY
ALSO TECHNICAL CENTRE

FORT JACKSON 5000M² FACTORY
ISO/TS 16949:2002 AND ISO 14001 CERTIFIED
PLASTIC INJECTION MOULDING
50 TON-860 TON INJECTION MOULDING MACHINES
18 MILLION PIECES PER ANNUM
ALSO TOOLROOM

LIVERPOOL ROAD BENONI
ISO/TS 16949:2002 AND ISO 14001 CERTIFIED
LEAD SMELTER
8 000 TONS RECYCLED LEAD PER ANNUM
ALSO WAREHOUSING & DISTRIBUTION
FORMATION & FINISHING LINE
MARKETING & FINANCE DIVISIONS



FIRST NATIONAL BATTERY WILL REMAIN THE EXCLUSIVE MANUFACTURER OF BATTERIES AND SUPPLIER OF PRODUCTS AND SERVICES TO FIRST NATIONAL BATTERY INDUSTRIAL. IN KEEPING WITH THEIR OBJECTIVE TOWARDS TRUE BLACK EMPOWERMENT THEY PLAN TO FURTHER INCREASE

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