



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

CHLORIDE

Planté Cells

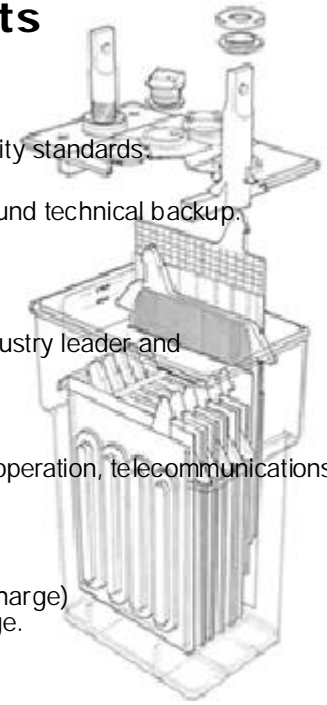


ISO 14001
ISO 9001: 2000
ISO/TS 16949: 2002

Complies with: IEC 60896-1 and BS 6290

Product and Service Benefits

- Locally-Manufactured Range
Manufactured by a South African company, proven under South African conditions.
- 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.

TRANSPARENT 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. Are 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

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.

SPECIFIC GRAVITY

A simply hydrometer reading indicates the state of charge. A fully charged cell will have a specific gravity of 1.210.

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.

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.

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%.

Planté, Capacities, Weights And Dimensions

| Type | Capacity in ampere-hours at 25°C when discharged in | | | Initial Charge Current | Weight | | Approx. quantity of acid 1.210sg | External dimensions of cell container | | | Overall height of cell | 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 |
| YAP 5 | 16 | 13 | 9.8 | 1 | 3.8 | 1.16 | 0.96 | 76 | 133 | 212 | 260 | 83 | 330 | 508 |
| YAP 9 | 32 | 26 | 19.5 | 2 | 6.3 | 1.89 | 1.56 | 114 | 133 | 212 | 260 | 121 | 330 | 508 |
| YAP 13 | 48 | 38.5 | 29.5 | 3 | 10 | 3.4 | 2.83 | 190 | 133 | 212 | 260 | 140 | 388 | 666 |
| YAP 17 | 64 | 52 | 39 | 4 | 11.45 | 3.25 | 2.68 | 190 | 133 | 212 | 260 | 140 | 388 | 666 |
| YAP 21 | 80 | 64 | 49 | 5 | 13.6 | 3.8 | 3.16 | 228 | 133 | 212 | 260 | 140 | 388 | 666 |
| YCP 9 | 107 | 86 | 65 | 7 | 18.6 | 5.5 | 4.5 | 134 | 203 | 349 | 423 | 140 | 400 | 710 |
| YCP 11 | 134 | 107 | 82 | 8.5 | 22.2 | 7.5 | 6.2 | 172 | 203 | 349 | 423 | 178 | 400 | 710 |
| YCP 13 | 161 | 129 | 98 | 10 | 24.9 | 7.2 | 5.9 | 172 | 203 | 349 | 423 | 178 | 400 | 710 |
| YCP 17 | 214 | 172 | 131 | 14 | 30.6 | 8.7 | 7.2 | 210 | 203 | 349 | 423 | 209 | 406 | 662 |
| YCP 21 | 268 | 215 | 163 | 17 | 36.9 | 10.4 | 8.6 | 248 | 203 | 349 | 423 | 209 | 426 | 742 |
| YCP 25 | 322 | 258 | 196 | 21 | 43.4 | 12.1 | 10.0 | 286 | 203 | 349 | 423 | 209 | 464 | 818 |
| YCP 29 | 375 | 301 | 229 | 24 | 54.4 | 16.2 | 13.4 | 362 | 203 | 349 | 423 | 209 | 542 | 974 |
| YCP 33 | 429 | 344 | 262 | 28 | 58.4 | 15.5 | 12.8 | 362 | 203 | 349 | 423 | 209 | 542 | 974 |
| YCP 35 | 455 | 365 | 278 | 32 | 60.4 | 15.1 | 12.1 | 362 | 203 | 349 | 423 | 209 | 542 | 974 |
| YHP 11 | 536 | 438 | 327 | 35 | 95.2 | 32.2 | 27.1 | 230 | 368 | 592 | 682 | 240 | 370 | 969 |
| YHP 13 | 643 | 526 | 392 | 42 | 106.2 | 30.6 | 25.7 | 230 | 368 | 592 | 682 | 240 | 370 | 969 |
| YHP 15 | 750 | 614 | 458 | 49 | 133.5 | 45.3 | 38.1 | 306 | 368 | 592 | 682 | 315 | 370 | 969 |
| YHP 17 | 858 | 702 | 523 | 56 | 144.5 | 43.7 | 36.7 | 306 | 368 | 592 | 682 | 315 | 370 | 969 |
| YHP 19 | 965 | 789 | 589 | 63 | 155.5 | 42.1 | 35.4 | 306 | 368 | 592 | 682 | 315 | 370 | 969 |
| YHP 21 | 1072 | 877 | 654 | 70 | 179.3 | 53.3 | 44.8 | 357 | 368 | 592 | 682 | 379 | 360 | 949 |
| YHP 23 | 1179 | 965 | 719 | 77 | 190.4 | 51.8 | 43.5 | 357 | 368 | 592 | 682 | 379 | 360 | 949 |
| YHP 25 | 1286 | 1052 | 785 | 84 | 218.0 | 68.8 | 56.1 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 |
| YHP 27 | 1394 | 1140 | 850 | 91 | 229.0 | 65.2 | 54.8 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 |
| YHP 29 | 1501 | 1228 | 915 | 98 | 240.1 | 63.7 | 53.5 | 433 | 368 | 592 | 682 | 379 | 435 | 1099 |
| YHP 31 | 1608 | 1315 | 981 | 105 | 268.3 | 79.3 | 66.6 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 |
| YHP 33 | 1715 | 1403 | 1046 | 112 | 279.2 | 77.6 | 65.2 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 |
| YHP 35 | 1822 | 1491 | 1112 | 119 | 290.2 | 76.0 | 63.9 | 509 | 368 | 592 | 682 | 379 | 510 | 1249 |
| YHP 37 | 1930 | 1578 | 1177 | 126 | 318.2 | 91.4 | 76.8 | 585 | 368 | 592 | 682 | 379 | 586 | 1401 |
| YHP 39 | 2037 | 1666 | 1242 | 133 | 329.2 | 89.8 | 75.5 | 585 | 368 | 592 | 682 | 379 | 586 | 1401 |
| YHP 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 5 000M² 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.

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