



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



Solar Power Cells



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

Complies with: SABS IEC 60254-1,2: 1997

Applications:

- Microwave Stations
- Radio Repeaters
- Any Remote or hard-to-reach Installation
- Any Renewable Energy Installation

The Raylite Solar Power Cell is designed specifically for solar power installations, particularly those in which it is desirable that maintenance be kept to a minimum. These cells are capable of high cycling - in excess of 1500 cycles to a 50% depth of discharge.

As most solar power installations are designed to cope with four to five days without sunshine, the cell design provides for a longer discharge period and a lower discharge rate than that of cells in conventional applications. This cell is also suitable for other renewable energy installations, such as wind or water-driven generators.

Design Features

ELECTROLYTE

The large electrolyte reservoir is designed to reduce battery topping-up frequency by 75%.

The lower performance requirement of the cell permits a reduction in the specific gravity of the electrolyte to 1.220 at 25°C. This, in turn, increases the conductivity of the electrolyte and also means that when a cell's electrolyte level reaches the minimum mark, the increase in specific gravity is still within acceptable limits, in the order of 1.265 at 25°C.

POSITIVE PLATE

Tubular plate technology provides the high degree of reliability and long life normally required in solar systems. Plate construction consists of special lead alloy spines, low antimony, in complete contact with superior active material.

NEGATIVE PLATE

The negative plate is of a special alloy grid containing a highly-porous paste formulation, which gives a balanced performance and life, complementing the positive plate construction.

VENT PLUGS

The special design of the vent plugs effectively returns all acid spray to the cell, yet permits free exit of oxygen and hydrogen.

TERMINALS

Cells are equipped with flat bolt-on terminals for ease of connection.

CONTAINER

For ease of inspection, containers are moulded to DIN standard in transparent styrene acrylonitrile, which provides high insulating properties. Age or acid contact will not cause deterioration.

The round tube has the following advantages over square tube:

- it offers a more uniform active material distribution around the supporting spines, resulting in more efficient use of materials.
- it is less prone to distortion under operating conditions.

LIDS

Lids are moulded from opaque styrene acrylonitrile.

Product and Service Benefits

- **Locally-Manufactured Range**
Manufactured by a South African company, proven under South African conditions.
- **Premier Quality**
Conforms to SABS IEC 60254-1,2: 1997 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 Raylite standby cell carries a comprehensive product warranty backed by the industry leader and supported by a national distributor network.



RSO Capacities, Weights And Dimensions

Type	Capacity in amp-hours at 25°C when discharged in		Initial Charge Current	Weight		Approx. quantity of acid 1.220sg	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
	100 Hrs	10 Hrs		Cell compl. filled	Acid only 1.220sg		Length	Width	Height				
Final voltage	1.85	1.85	Amps	Kg	Kg	Litres	mm	mm	mm	mm	mm	mm	mm
3RSO249	249	150	23	20.5	9.2	7.5	124	206	471	499	134	414	649
4RSO332	332	200	30	22.0	8.5	7.0	124	206	471	499	134	414	649
5RSO415	415	250	38	23.7	7.9	6.5	124	206	471	499	134	414	649
6RSO498	498	300	45	30.2	11.6	9.5	165	206	471	499	175	414	649
7RSO581	581	350	53	31.9	11.0	9.0	165	206	471	499	175	414	649
6RSO696	696	420	63	37.9	13.2	10.8	145	206	646	678	155	414	649
7RSO812	812	490	74	47.6	18.0	14.8	191	210	646	678	220	431	687
8RSO928	928	560	84	52.4	17.2	14.1	191	210	646	678	220	431	687
9RSO1044	1044	630	95	59.7	22.3	18.3	233	210	646	678	220	473	756
10RSO1160	1160	700	105	61.8	21.4	17.5	233	210	646	678	220	473	756
11RSO1276	1276	770	116	71.0	26.5	21.7	275	210	646	678	220	515	840
12RSO1392	1392	840	126	73.0	25.5	20.9	275	210	646	678	220	515	840

Bolts M6 x 35mm long + M6 nut + 2 x M6 washers per terminal post

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 THEY PLAN TO FURTHER INCREASE

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