



THROUGH CARING WE LEAD

RAYLITE™

M-Solar Cells



SANS IEC 60254-1,2: 1997

POSITIVE PLATE

The tubular plate construction incorporates low antimonial lead alloy spines in complete contact with the active material, which is retained by an outer gauntlet. This enables the electrolyte to penetrate freely, ensuring a high power output per unit volume.

NEGATIVE PLATE

The negative plate is of a highly porous paste on a lead alloy grid. This compliments the positive plate construction, providing a balanced performance and superior life.

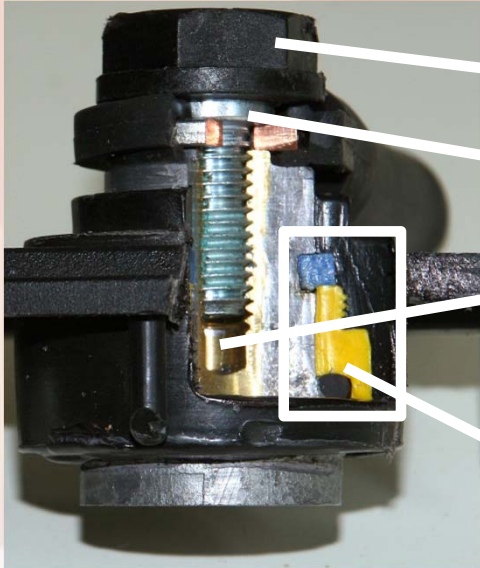
INJECTION MOULDED CONNECTOR HEAD

The bolt-on connector facilitates easy cell replacement. Acid resistant, totally enclosed terminal post, maximum safety. Orifice for voltage readings.

PERFECTSEAL®

A polypropylene pressure busing seated on a rubber "o" ring, locked in place by a polycarbonate ring. The cell lid is welded to the container, and polypropylene is injection moulded into the post to lid cavity. This design eliminates acid leaks through the post assembly.

PERFECTSEAL® BOLT-ON POST



Plastic Head Bolt

Stainless Steel Bolt

Threaded Brass Insert maximises terminal connector conductivity

PerfectSeal®

FLOAT LEVEL INDICATOR MAX/MIN MARK

Clearly visible and simple to read.

CLOSED CELL FLOAT

Ensures consistent accuracy over cell life

Minimum

Maximum

Closed Cell Float



RAYLITE

MUD TRAP

Prevents possible shorting between plates due to active material shedding during the life of the cell.

CONTAINER AND LID

The lid is heat-sealed to the container ensuring an excellent bond. This is vital to mechanical strength and safety.

WRAP-AROUND SLEEVE SEPARATOR

Microporous polyethylene is specially calendered with ribs. Fully enclosed plates cannot develop "mossing" or shorts between the plates. Extended battery life is achieved using sleeved plates

Wrap Around Separator



Vent Cap

Bolt-on Post

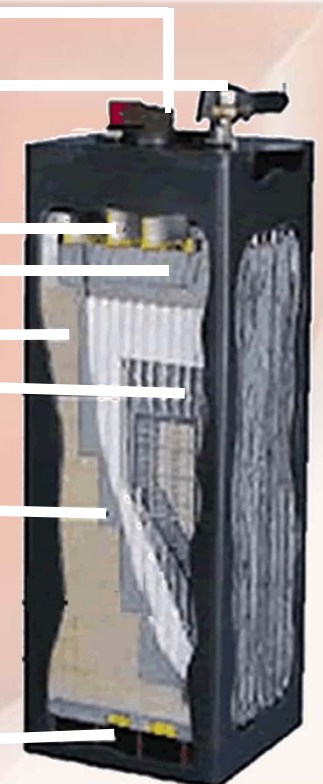
Positive Plate Separator

Negative Plate

Positive Spines

Negative Grid

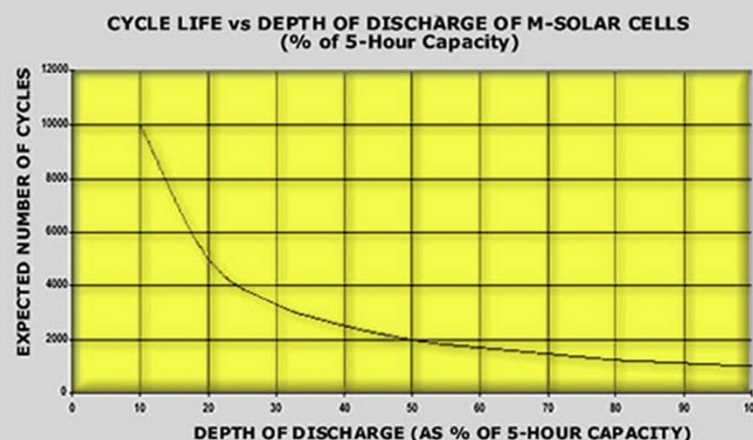
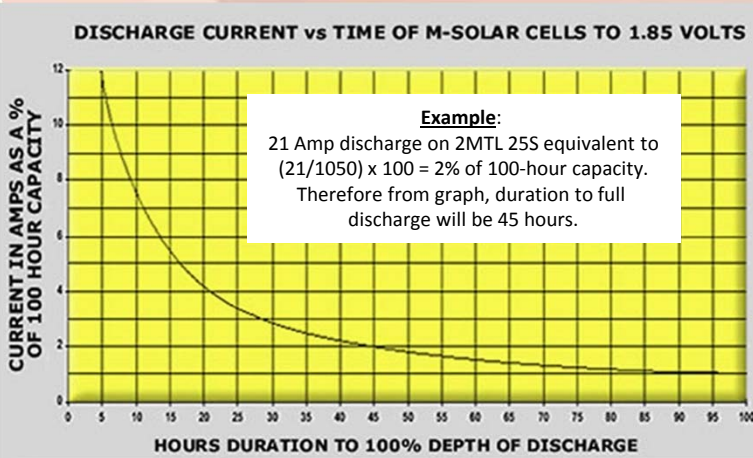
Mud Trap



Battery Specifications

Type	Voltage	Capacity @ 25°C °100 (ah)	Battery Dimensions (mm)			Approx Battery Mass (kg)	Acid Volume per Cell (litres)
			Length (mm) "L"	Width (mm) "W"	Height (mm) "H"		
3 MIL 15S	6	530	585	182	445	78	5.5
3 MIL 17S	6	600	585	198	445	85	6.1
3 MIL 19S	6	690	585	210	445	99	6.6
3 MIL 21S	6	750	585	230	445	106	7.1
3 MIL 25S	6	900	585	262	445	120	8.1
2 MTL 25S	4	1050	411	262	497	94	10.2
2 MTH 27S	4	1340	415	262	558	118	10.9
2 MTE 21S	4	1380	415	230	735	120	12.5
2 MTE 25S	4	1660	415	262	735	150	13.7

Note: Operating S.G. = 1.290 ± 0.01



Cable Application	M-Solar Monoblock Connectors			
	25 mm ²	35 mm ²	50 mm ²	70 mm ²
Inter Cell (150mm)	CB462	CB475	CB487	CB499
Inter Tray (360mm)	CB470	CB549	CB550	CB551
Take-off (2000mm)	CB522	CB552	CB553	CB554



Established in 1931, First National Battery is a leading manufacturer of lead acid batteries in South Africa.

The company produces more than 2 200 000 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 products 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

22 800m² Production Area
ISO 9001: 2008, ISO 14001: 2004
and TS 16949 2009
Industrial Battery Manufacturing:
Forktruck Batteries, Standby Batteries,
Mining Batteries

Settlers Way, East London

11 700m² Production Area
ISO 14001: 2004 and TS 16949 2009
Automotive Battery Manufacturing:
10 000 Batteries per Day
also
Technical Centre

Fort Jackson

7 800m² Production Area
ISO 14001: 2004 and TS 16949 2009
Plastic Injection Moulding:
50 Ton - 860 Ton Injection Moulding
Machines
18 Million Pieces per Annum
Also Toolroom

Liverpool Road, Benoni

ISO 9001: 2008, ISO 14001: 2004 and
TS 16949 2009
Lead Smelter:
17 000 Tons Recycled Lead per Annum
Also Warehousing & Distribution
Formation & Finishing Line
Marketing & Finance Divisions