

**RAYLITE**

## M-Solar Cells



**ISO 14001**

**ISO 9001: 2000**

**ISO/TS 16949: 2002**

Complies with SABS IEC 60254-1,2



## M-Solar Battery

Santoprene® Connector

Stainless Steel Bolt

Vent Cap

Top Up Level Indicator

Negative Plate

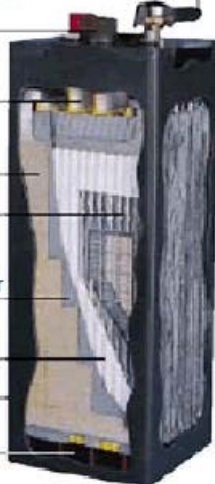
Positive Spines

Sleeve Separator

Tubular Positive

Container

Mud Trap



### Positive Plate

The tubular plate construction incorporates low antimony 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.

### Top-up Level Indicator

Two ribs on the separator guard serve both as level indicators, and to strengthen the guard.

### Negative Plate

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

### Sleeve Separators

Sleeve separators are manufactured from microporous polyethylene. They are impervious to acid attack. The sleeve separators prevent short-circuiting caused by massing.

### 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.

## Perfect Seal® Bolt-On Connector

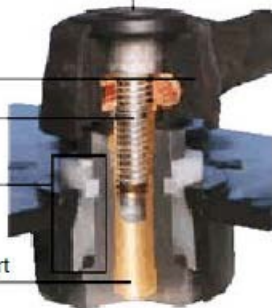
Connector Cap

Injection Moulded Connector Head

Stainless Steel Bolt

Perfect Seal®

Threaded Brass Insert



### Injection Moulded Connector Head

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

### Stainless Steel Bolt

Corrosion resistant.

### Threaded Brass Insert

Maximises terminal connector conductivity.

### Perfect Seal®

A polypropylene pressure bushing seated on a rubber "O" ring, locked in place by a polycarbonate ring. The cell 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.

## Float Level Indicator

Min

Max

Closed Cell Float



Max / Min Mark

Clearly visible and simple to read.

Closed Cell Float

Ensures consistent accuracy over cell life.

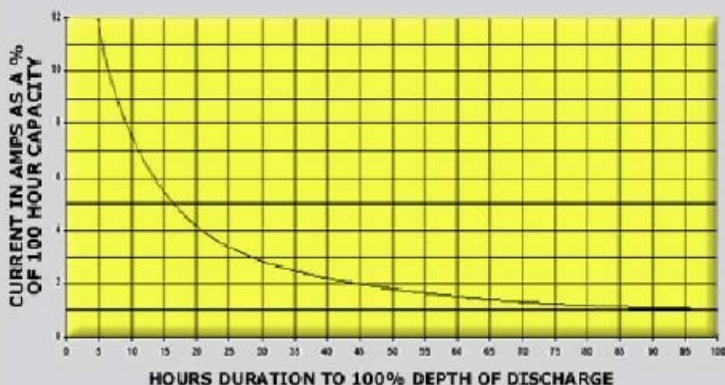
## Santoprene® Connectors

- \* Made of Thermoplastic Rubber
- \* Acid Resistant
- \* Abrasion Resistant
- \* Fatigue Resistant
- \* Access for Easy Voltage Checking
- \* More Flexible than PVC Cable
- \* Exceptional Moulding Bond Eliminates Contamination
- \* Built in "O" Rings
- \* Easy and Simple to Connect.

# Battery Specification

Cell Type	Battery Voltage (volts)	Capacity @ 25°C C <sub>100</sub> (Ah)	Battery Dimensions (mm)			Approx Battery Mass (kg)	Acid Volume Per Cell (litres)
			Length	Width	Height		
3 MIL 15 S	6	530	585	182	460	80	5.6 l
3 MIL 17 S	6	600	585	198	460	91	6.3 l
3 MIL 21 S	6	750	585	230	460	116	8.0 l
3 MIL 25 S	6	900	585	262	460	133	8.2 l
2 MTL 25 S	4	1050	411	262	530	97	10.7 l
2 MTE 21 S	4	1380	415	230	740	127	14.0 l
2 MTE 25 S	4	1660	415	262	740	145	15.0 l

**DISCHARGE CURRENT vs TIME OF M-SOLAR CELLS TO 1.85 VOLTS**



**CYCLE LIFE vs DEPTH OF DISCHARGE OF M-SOLAR CELLS (% of 5-Hour Capacity)**

