

# **RAYLITE** M-Solar Batteries

**Raylite M-Solar** deep cycle batteries are designed specifically for solar power installations and come as a complete 12 Volt set, including interconnecting straps and acid containers. Raylite M-Solar batteries are available from 600 to 1660 Amp Hour capacity (@100h) and come with a 3-year full and a 2-year pro-rata warranty.

A 12 Volt M-Solar battery bank consists of 6 individual 2 Volt cells that are placed in external plastic cases (hence additional battery tray is not required). They come in 3 cells to a case (up to 900Ah), or 2 cells to a case (from 1050Ah). The cells are filled with acid and are usually fully charged on delivery.

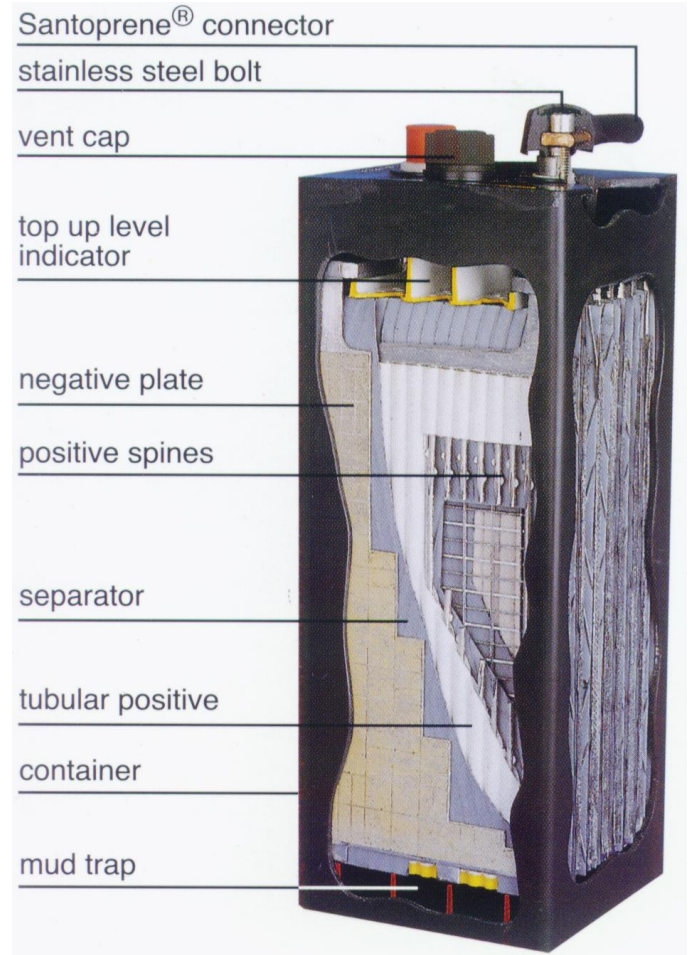
M-Solar batteries are capable of high cycling: ~3500 cycles to 20% Depth of Discharge (meaning your battery remains 80% full) and ~1500 cycles to 50% Depth of Discharge. The cells are optimised for operation in a stand alone solar system and provide a long discharge period while lowering the discharge rate. Like all flooded batteries, M-Solar batteries require frequent maintenance to achieve the above mentioned cycles.

## Inclusions

- 6 x 2V cells
- 2 or 3 x containers
- interconnecting straps
- 2 x ~1.5m battery leads
- 1 x thermometer
- 1 x hydrometer
- 1 x battery log book
- 1 x pair of goggles
- 1 x pair of rubber gloves



## Battery Features



### **Positive Plate**

The tubular plate construction incorporates lead alloy spines in complete contact with 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 complements the positive plate construction, providing a balanced performance and superior life.

## Separators

Separators are manufactured from microporous polyethylene and have a generous overlap to reduce the risk of short circuit. They are impervious to acid attack.

## Mud Trap

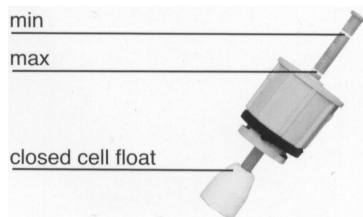
Prevents possible shorting between plates due to active material shedding during the life of the cell.

## Container and Lid

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

## Top up Level Indicator

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



## 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

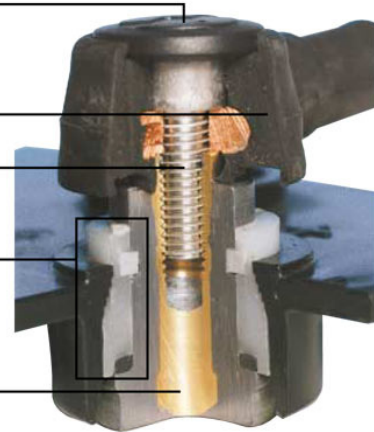
connector cap

injection moulded connector head

stainless steel bolt

Perfect Seal®

threaded brass insert



## Perfect Seal Bolt-On Connector

### Perfect Seal®

A polypropylene pressure bushing seated on a rubber "O" ring, locked in place by a poly carbonate 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.

### 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.

| RPC Code # | Cell Type | Unit Volts | Capacity (Amp-Hours) |      | Dimensions (mm) |       |        | Weight kg |
|------------|-----------|------------|----------------------|------|-----------------|-------|--------|-----------|
|            |           |            | C10                  | C100 | Length          | Width | Height |           |
| BAT-R600   | MIL17S    | 6          | 419                  | 600  | 585             | 198   | 460    | 91        |
| BAT-R750   | MIL21S    | 6          | 524                  | 750  | 585             | 230   | 460    | 116       |
| BAT-R900   | MIL25S    | 6          | 629                  | 900  | 585             | 262   | 460    | 133       |
| BAT-R1050  | MTL25S    | 4          | 759                  | 1050 | 411             | 262   | 530    | 97        |
| BAT-R1380  | MTE21S    | 4          | 996                  | 1380 | 415             | 230   | 740    | 127       |
| BAT-R1660  | MTE25S    | 4          | 1200                 | 1660 | 415             | 262   | 740    | 145       |



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