

SEPS
Sun Enenergy
Power System

SEPS-S3LS-Rev2



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RELEASING EVOLUTION

(Fully Designed and Manufactured in South Africa)



SYSTEM FEATURES

The SEPS-S3LS-REV2 is a Solar Light System specifically designed for Remote Villages in Rural Areas. The system can be utilised for other lighting applications such as Bush Camps, Camping Enthusiasts and Emergency circumstances. The System comprise of a Battery supplying the energy for LED Technology Light Fittings designed for optimum performance.

The Battery is in turn charged by a Hi-Tech Solar Panel and this combination was carefully selected to provide for an average of 24 Hour (3 Days) continuous lighting time store in the event of overcast conditions.

There is also a USB socket provided for charging cell phones. The System consist of and is supplied with one Control Unit, three Solar Led Light fittings, one 20 Watt solar panel complete with 10m input cable, three 7m output cables for the light fittings and one 5m output extension cable to lengthen a 7m output cable where required. All the units are connected by pluggable cables which simplify and make installation very easy. A fourth light fitting is optional as an extra.

INDIVIDUAL UNIT DESCRIPTIONS

1. The Solar Control Unit

The Solar Control Unit is housed in a metal box and contains all the control modules required to control the light system effectively and is powder coated for durability. The individual modules are the following:

- a. **Regulating Module** - Controls the input supply from the solar panel. Regulates the output supply voltage to the lights and the USB socket for charging cell phones. Regulates and monitor the charging of the battery.
- b. **Busbar Module** - Contains four output sockets for the power supply to the lights and the USB socket for cell phone charging. The input socket for the solar panel supply is also mounted on this busbar. Only three light fittings are supplied but a fourth fitting is optional.
- c. **Power Level Indicator Module** - This five LED level indicator module show the status of the supply voltage available. When full power is available all five LEDS will light up. As the power is consumed the LEDS will switch off from left to right until only one red LED will remain on. At this point the power available is minimal and the unit can then be expected to switch itself off completely to protect the battery.



2. The Solar Panel 20W

The solar panel consist of 36 polycrystalline solar cells and delivers a maximum power of 20Wp, 18V supply and 1.11A maximum power current. The panel weighs 2.5kg with a dimension of 550x338x25mm. The panel is fitted with a standard 10m input cable with a red plug to differentiate between input and output cable plugs.

All output cables are fitted with black plugs. Roof mounting brackets are available as an optional depending on the type of roof. This Hi-Tech solar panel has a 25-year linear performance life span with a 10-year product warranty when used under linear performance conditions.



3. The Solar Light Fitting

The solar light fitting used in this system is the type SEPS-SLF1. It is a small pvc bulkhead with a 4x1W LED strip module producing a light intensity of 640 lumens and a LED luminous efficacy of 10.6 Watt (65W Incandescent). The light fitting is fitted with a chain pull switch for on/off function and a dc mains mini power socket to connect power by means of a output cable with a dc mains mini power plug. This makes installations and setting-up very easy and flexible. Other types of light fittings are also available on request.



4. The Solar Output Cable

Lights are being supplied with power by means of pluggable output cables from the control unit. A standard length of 7m cable is supplied with each light fitting. The cable is the type 2-Core

0.75mm² CU PVC 600/1000V with a maximum current rating of 14A and a voltage drop of 62.2mV/A/m. It is fitted with dc mains mini power plugs on either end which makes installation very easy



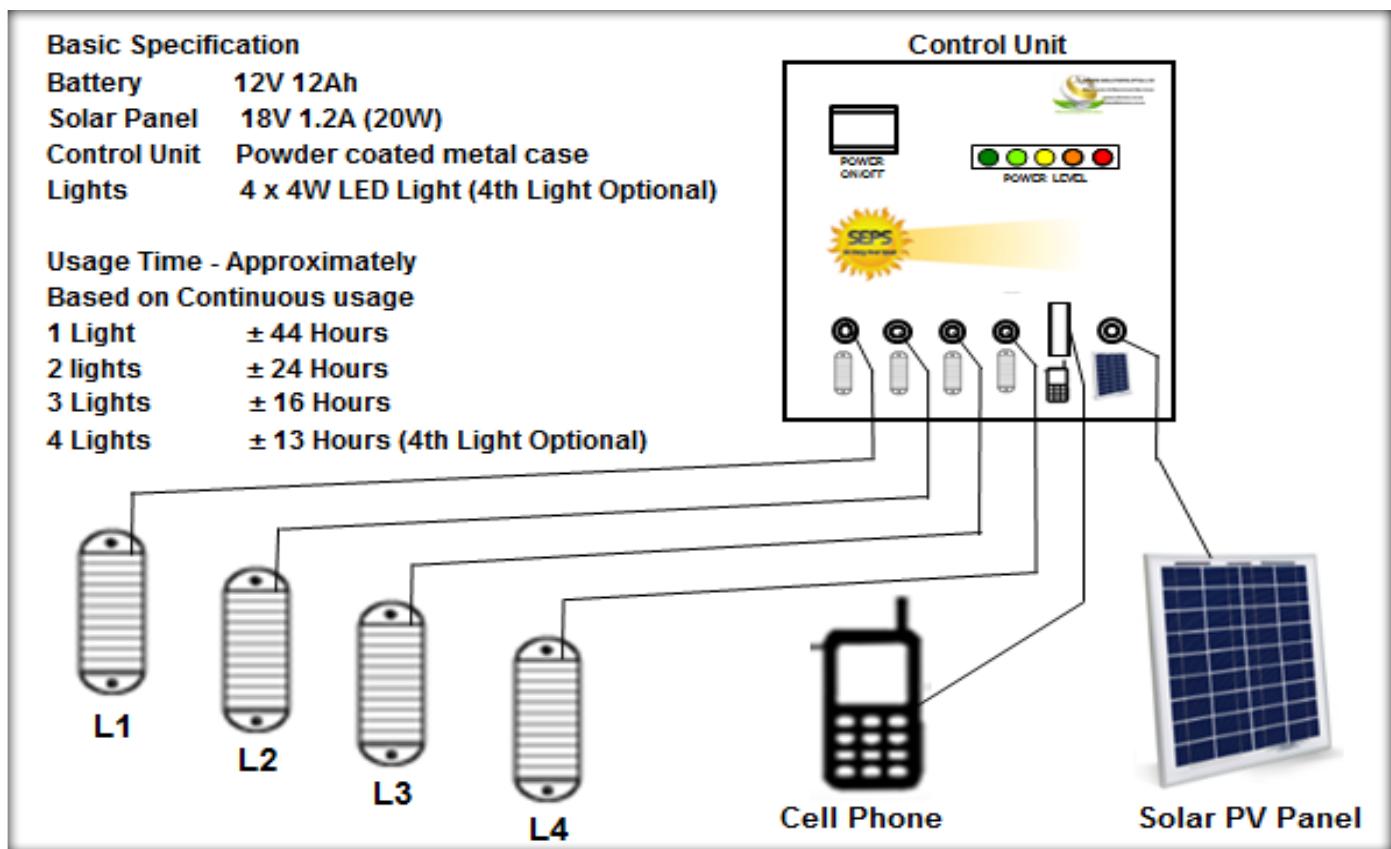
5. The Solar Output Extension Cable

This is a cable used to extend the standard 7m output cable and is 5m long. The cable is the type 2-Core 0.75mm² CU PVC 600/1000V with a maximum current rating of 14A and a voltage

drop of 62.2mV/A/m. It is fitted with a dc mains mini male power plug on the one end and a dc mains mini female inline socket on the other end.



6. Schematic Setup and Specifications



7. Service, Repairs and Spares

- Service - DMMS Solutions (Pty) Ltd provides an after sales service on all their designed and manufactured products. Full advisory support is available to clients on any problem they may encounter with any DMMS product they purchase. All they have to do is contact DMMS who are most prepared to assist.

- b. Repairs - DMMS Solutions (Pty) Ltd has workshop facilities to carry out repairs on all products purchased by clients.
- c. Spare Parts - DMMS Solutions (Pty) Ltd stock spare parts on all their products and will on request supply and deliver to any client nationally and internationally.

8. System Accessories

a. System Canvas carry bag



b. Solar panel free standing bracket



c. Vehicle roof tie down accessories for solar panel and free-standing bracket



d. Solar panel pole mount bracket

