

Reference Sheet: Mozambique

School Systems
Mozambique



Through our experience and the expertise of our associated companies we are able to give technical advice to our customers on design, engineering and installation of photovoltaic telecom systems.



Customer

School of Pessene

Installation

August 2010

Location

Pessene

Systems

Different Ulitium System for Lighting of the class room and the teachers houses

2 x 4 Ulitium Lightkit

1 x 3 Ulitium Lightkit

1 x 2 Ulitium Lightkit

Components of the Systems

2 x Ulitium LEC200 (12 Watt module)

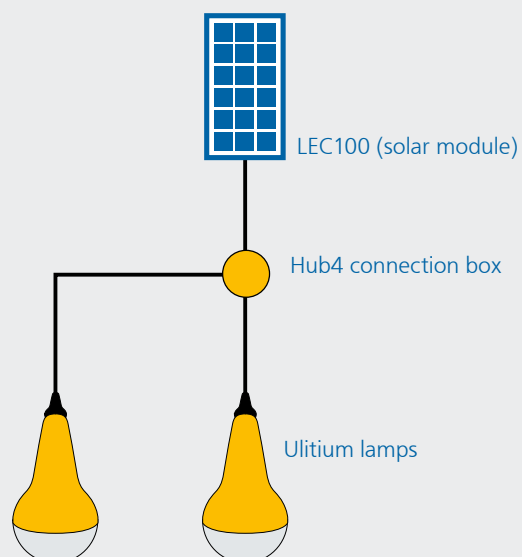
1 x Ulitium LEC150 (9 Watt module)

1 x Ulitium LEC100 (6 Watt module)

13 x Ulitium200 LED lamp wih integrated Li-Ion battery and electronics

7 x Hub 4 Connection Box for Ulitium Bayonet plugs

System Diagram – 2 Ulitium Lightkit



Ulitiun Systems

The Sundaya series „Ulitiun“ encompasses LED lamps, LCD televisions and suitable solar modules as well as a distribution box for installation using plug and play. The modular construction creates the highest possible flexibility. The system is suited for garden houses and garages as well as for camper vans, solar home systems and school lighting systems. Users can expand the number of lamps in practically unlimited quantities and can combine them with each other. Depending on the number of devises and luminous period desired, Phaesun offers four different module sizes with outputs between three and twelve watts. The LED lamps consume extremely low amounts of energy and are very effective. For 240 lumens of light output over six hours, eight kilojoules of energy per hour are sufficient, which a solar module can supply with an output of only three watts. If one dims the lamps, which is possible in three steps, they need even less energy - at 120 lumens, they can be illuminated, for example, for 12 hours. The Sundaya lamp also leads the field as far as efficiency is concerned. While a conventional light bulb delivers one percent and a low-energy light bulb five to ten percent, the new LED lamp from Sundaya has an efficiency of 23 percent. The electronics and a lithium-ion rechargeable battery have been integrated in the lamps. By using a distributor box, one can connect the solar modules directly to the users system. A charge regulator is not necessary. At a candle power of 240 lumens, the rechargeable battery will last three to four years, at 120 lumens six to eight years.

Estimated End Customer Price

Investment costs of the complete Ulitiun power supply

2 x 4 Ulitiun Lightkit	685 EUR
1 x 3 Ulitiun Lightkit	258 EUR
1 x 2 Ulitiun Lightkit	178 EUR
Istallation	300 EUR
Total investment	1.421 EUR



Around the world:

Through Phaesun Asmara, Phaesun S.A, Phaeme Ltd. and our network of associated companies we have successfully developed hundreds of sustainable energy projects in more than 50 countries worldwide.



Phaesun's integrated service covers customised packaged systems in the area of rural electrification, health care, telecommunications, education and water supply.

In designing any solar system, we always emphasise the ease of installation, minimal maintenance and long operating life.

Systems are based on the use of readily available components and energy-efficient lights, appliances and equipment.

Local sourcing is done whenever possible.

■ Countries in which Phaesun has already realised projects

■ Phaesun and associated companies

Phaesun GmbH

Luitpoldstraße 28
87700 Memmingen
Germany

Tel. +49 (8331) 990 42-0
Fax +49 (8331) 990 42-12
info@phaesun.com

www.phaesun.com

As an committed member, Phaesun is involved in all activities of the following organisations:



Alliance for
Rural
Electrification
Shining a Light for Progress

