

A blue square containing a white letter 'H'.

# SOLUXTEC

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## Solubloc Series

**Off-grid Medical Station**

100 % solar energy driven,  
100 % autonomous

[www.soluxtec.eu](http://www.soluxtec.eu)



# Introduction

- Concept
- For who?
- For what?
- Whats inside?
- How it works?
- What to do with?
- Advantages







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# Concept

Solubloc = Appliance + power generator



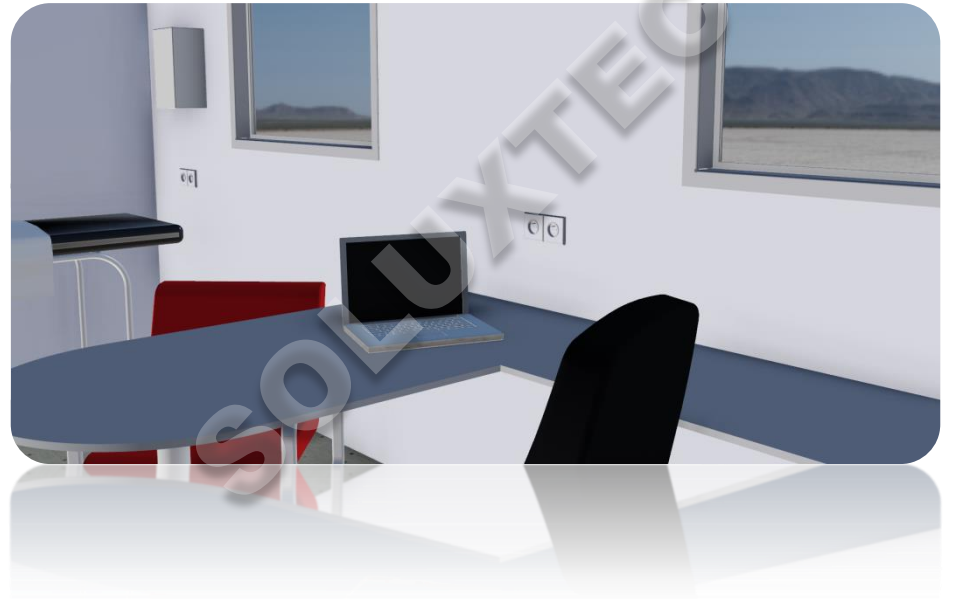


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## For who ?

- Medical firstaider
- Sick persons
- Injured persons
- Vaccines
- Citizens seeking for medical advice





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## For what ?

- Africans rural villages
- No power grid areas
- Conflict areas
- Military bases
- Rural hospital extension
- Doctors without borders
- Local non governmental organization



# What's inside

- Appliance:
  - Clear and luminous space with white wall
  - Medical equipments (patient table, first aid kits, etc... )
  - All commodities (internet access, ceiling lighting, hand-wash sink, power wall socket, fan)





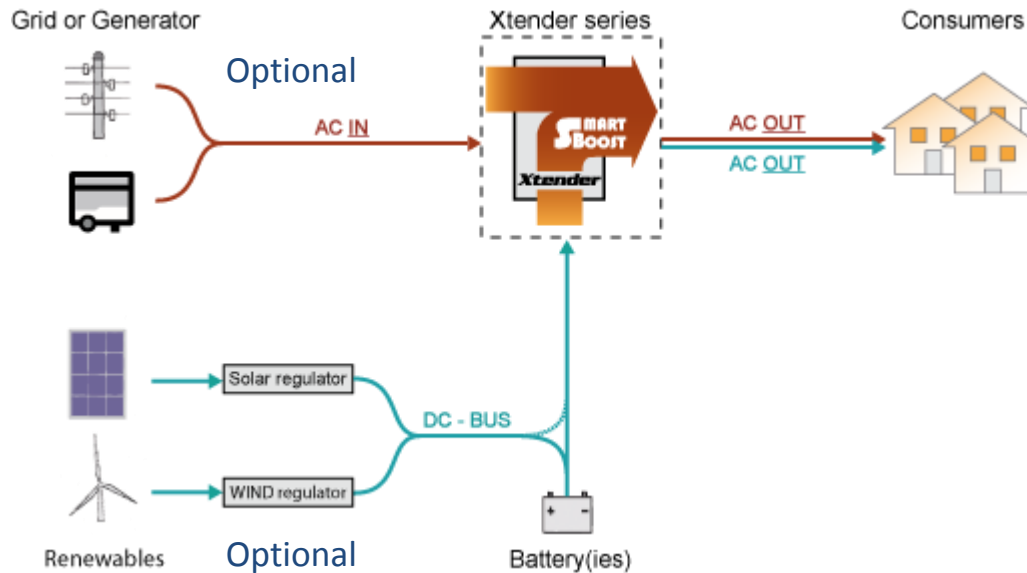
## What's inside

- Power generator: 1500 Wp
  - 6 x PV modules generator Soluxtec
  - Batteries EnerSys and accessories
  - Inverters and charge controllers by Studer
  - Fuse boxes and other technical safety devices





# How it works 1/2



- PV modules and AC converters are connected to a battery bank
- Solar energy power the load and excess is stored into the batteries
- AC converter turns DC energy from the batteries into AC energy to power the loads
- As option, external genset, grid or wind turbine can be connect to the sytem to extend autonomy





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## How it works 2/2

### **Day time = PV production**

- PV modules charge the batteries and supply the loads into the Off-grid Medical Station
- Normal operation

### **Night time = No PV production**

- Batteries energy release
- The batteries drive the loads in the medical platform
- Continuous normal operation



# What to do with?

## Case study

Location => Uganda (Africa)

Autonomy (only with solar PV) => 3 days

Type of load	Power per unit	Quantity	Operating time per day
LED spot	10 W	4	10 h
Flourescent lamps	10 W	2	10 h
Ceiling fan	25 W	1	10 h
Laptop	100 W	1	10 h
Wall socket	1500 W	1	1 h
Internet modem	5 W	1	10 h



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# Advantages

- Turn-key solution (all included)
- Easy shipment
- Very fast commissioning
- 100% maintenance free
- Professional solution
- Best price & performance ratio
- High flexibility & deployability
- Designed for hard conditions



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## Thank you for your attention

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