



Insele Solar

Electricity for the Cost of Sunshine



Tough, Durable and Reliable | LED Lamp & USB Output
Intelligent Battery Management System



INTRODUCTION

Currently, it is estimated that there are over 4 million households without basic electricity in South Africa, add to that that fact that the power supply cannot meet current demands and that leaves a lot of people in the dark. Common alternative solutions such as paraffin or gas lamps and stoves come with the ever present risk of fire and the damage and loss of life that comes with it. The safe alternative solution is providing the masses with renewable solar energy, Insele Solar subscribes to this goal.

THE MANUFACTURER

The Insele Solar Charger units are manufactured by Microtronix Manufacturing CC. Microtronix was formed in 1993 with the primary business being electronic contract manufacturing for smart card readers; cashless gaming; and the casino and vending industries.

Microtronix has successfully grown to become a major player in the electronic contract manufacturing space in South Africa specialising in PC board assembly for the mining, military, automotive and various commercial industries at its high-tech facility located in Strijdom Park, Johannesburg, Gauteng.

Employing over 200 staff, Microtronix is currently one of the largest contract manufacturers of PC boards in South Africa. To maintain the necessary quality standards Microtronix adheres to ISO9001, SABS and IPC protocols.

With the help of Microtronix Manufacturing, The Insele Solar Charger is an all-South African project, designed and manufactured locally providing local employment.





THE INSELE SOLAR CHARGER

The Insele Solar Charger unit which has been designed for camping and those living in rural and low income areas without access to electricity, is a complete solar intelligent battery management system.

Utilising a rechargeable 12AH 12V Lead Crystal Battery, which contains 150WH of energy. The solar powered lights provide enough light to fully illuminate a medium sized dwelling eliminating the need for potentially dangerous paraffin lamps, oil lamps or candles. The unit also provides two USB power outputs and one car charger (cigarette lighter) socket.

The unit powers up to 8 (4 included) high brightness, dual function, low energy LED lights, these lights come in two versions (wallmount and downlight) which can be easily fitted to the walls or ceilings of any dwelling.

USB ports have a 2A max output (2x 1A or 1x 2A) and are compatible with most major cellphone and tablet brands that charge via a USB cable. Charge either 2 cellphones at a time or 1 tablet.

The unit also provides a 2A 12V socket (cigarette lighter). The 12V socket output can power a variety of 12V devices including our optional 16" LCD TV and 12V Flood Light.

Once the battery has lost its charge it can be easily recharged using the power of the sun and the provided solar panel, providing a sustainable and reusable source of power.

Note: The Insele Solar Charger unit is guaranteed for 24 months but the estimated life span of the battery and system is 5+ years.

LOAD SHEDDING SOLUTION

Load shedding is already a frustration without criminals taking advantage of the situation. Alarm systems often die during long load shedding periods, The Insele Battery Power Unit in addition to providing lighting and charging can also be used to keep your house safe and your alarm armed while you are not at home.

In addition to an alarm battery backup the Insele Solar Charger also comes in an Emergency Lighting Unit model

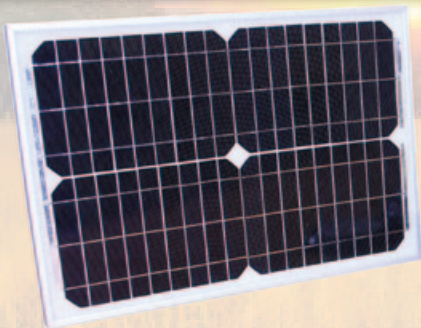
SPECIFICATIONS

- 12V 12AH Lead Crystal Battery (150WH)
- USB Port capable of supplying 2A of charge current
- Battery level and charge indicator
- 12V Socket (Cigarette Lighter) (2A Max)
- Intelligent Battery Charger
- Low battery cutout Protection
- Includes 2 year warranty
- Master on/off switch
- Quick connect wiring system
- 4 Individual light switches with indicator
- Mono/ Poly-Crystalline, 40W Solar Panel
- Solar Panel includes mounting bracket for corrugated roofs
- Hail resistant solar panel



Hi-Bright LED Light

12V
Dual Mode
Ceiling or Wall Mount
0.9W Power Saving
3.6W Full Power



Solar Panel

40W Specs:
18V 2.22A 36 Cells 530x670x25mm
4.4kg
Mounting Brackets included



Insele Solar Charger

**Tough, Durable and Reliable
Quad Lamp Dual USB Output
Intelligent Battery Management System**

www.insele-solar.co.za



Basic Electricity for the Cost of Sunshine

Designed for camping and those living in rural and low income areas without access to electricity, the Insele Solar Charger unit is a complete solar intelligent battery management system.

The unit powers up to 4 high brightness, low energy LED lights, which can be easily fitted to the walls or ceilings of any dwelling. The unit also provides two USB power outputs and one 12V socket (cigarette lighter).

Tired of load shedding?



Insele Backup Lights

**Tough, Durable and Reliable
Quad Lamp Dual USB Output
Intelligent Battery Management System**

www.insele-solar.co.za



Up to 4 Additional Lights Available

Designed for illuminating your home when no grid power is available, the Insele Backup Lighting unit is a complete power supply intelligent battery management system. The unit can power up to 8 of our high brightness, low energy, dual function lights (4 Sold separately). The unit also provides two USB power outputs and one 12V socket (cigarette lighter) for all your charging needs.

The Insele Backup Lighting Unit will keep your house lit and your cellphone charged during blackouts



Mini-Insele Solar Charger

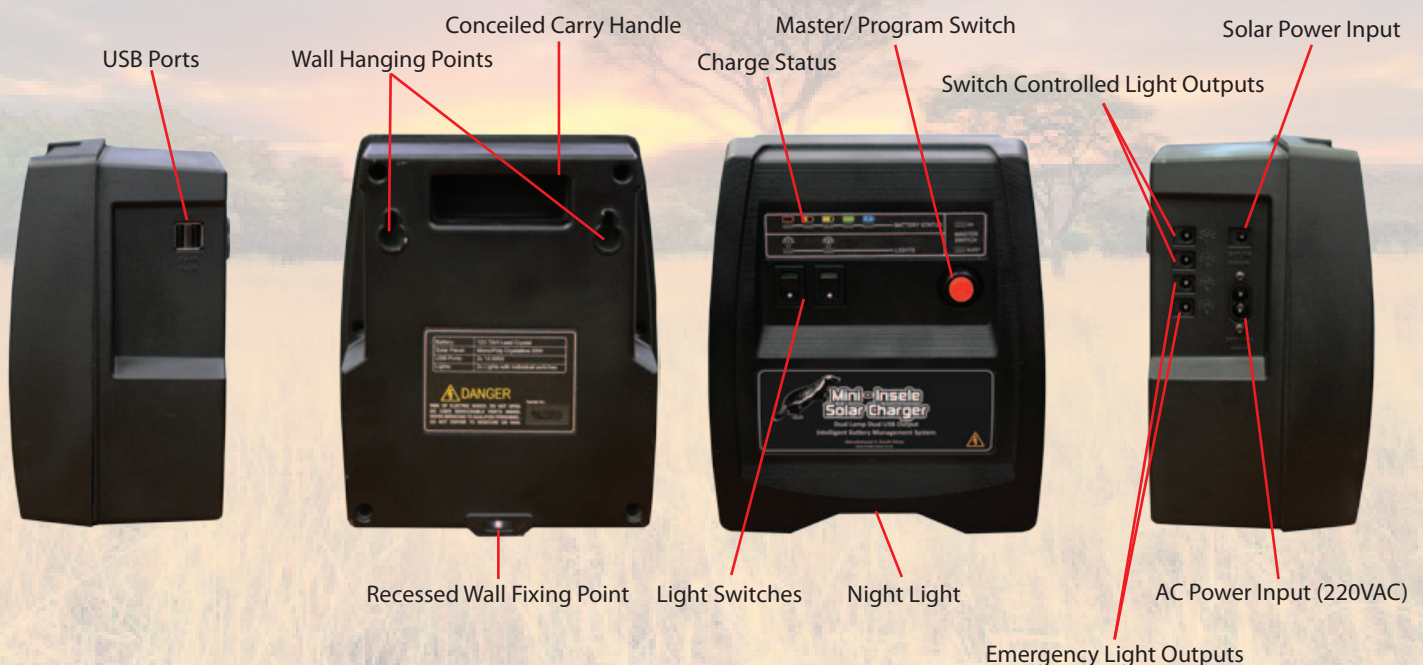
The unit uses a rechargeable 7.2AH 12V AGM Battery, which contains 90WH of energy. The low power LED lights provide enough light to fully illuminate a medium sized dwelling eliminating the need for potentially dangerous paraffin lamps, oil lamps or candles during load shedding or whilst camping.

The unit supports 2 output modes, Emergency Lighting and Switch Operated. By connecting the lights to the Emergency Lighting outputs the unit will automatically switch them on when normal power is lost. When the lights are connected to the Switch Operated outputs you can manually switch them on and off using the built in switches on the front of the unit. The built-in USB ports can be used for charging modern devices such as cellphones and tablets.

Once the battery has lost its charge it can be easily recharged using either the built in 220V Power Supply and a normal wall plug or by using the power of the sun and the optional solar panel. Providing a sustainable and reusable source of power.

Specifications

- 7.2V 12AH Lead Crystal Battery (90WH)
- USB Port capable of supplying 2A of charge current
- Battery level and charge indicator
- Intelligent Battery Charger
- Low battery cutout Protection
- Built in 220VAC Power Supply
- Includes 2 year warranty
- Made in South Africa
- Master on/off switch
- Quick connect wiring system
- 2 Individual light switches with indicator
- Optional Mono/ Poly-Crystalline, 20W Solar Panel
- Optional Solar Panel includes mounting bracket for corrugated roofs





Mini - Insele Solar Charger

Dual Lamp Dual USB Output
Intelligent Battery Management System



Keeping you out of the Dark

This handy little unit will make sure you're not in dark.
The smallest and most price conscious product in our range. Sporting a 7AH battery, 2 lights, 2 USB ports and a built in PSU with optional input from 20W Solar Panel; the Mini-Insele Solar Charger will light up even the darkest night.



FAQ

Q: What Battery is supplied with this Insele Solar charger kit?

A: A 12V 12AH Gel cell battery (Long Life)

Q: What Battery is supplied with this Mini-Insele Solar charger kit?

A: A 12V 7.2AH AGM battery (Long Life)

Q: When will the Blue indicating light illuminate?

A: Only when the solar panel is generating sufficient power to charge the battery in the sun.

Q: Will the solar panel overcharge my battery?

A: No, the charge controller ensures that a steady charge is supplied to the battery and will not overcharge the battery.

Q: Can the battery be over discharged and damaged during normal use?

A: No, the charge controller monitors the battery and if it reaches the minimum allowable level it will disengage the battery to protect it from damage.

Q: How do I clean the solar panel?

A: Dust and dirt should first be swept of the panel surface using a soft brush then using a wet cloth to wipe the panel surface to remove the remaining dirt and grime. This will always improve the system performance.

Q: How often should I clean my solar panel?

A: At least once every 3 months or whenever it becomes dusty and dirty.

Q: Is the solar panel kit waterproof?

A: Yes, the Solar panel is waterproof, however the solar battery pack controller is not.

Q: If I go away on holiday should I unplug my system?

A: No, always leave the solar panel plugged in.

CURRENTLY IN DEVELOPMENT



Insele Solar Charger

350 Watt

8x Lamp & Quad USB Output
Intelligent Battery Management System



Basic Electricity for the Cost of Sunshine

A larger version of the standard Insele Solar Charger unit, the 350W Charger Unit has been designed for those with larger electricity needs. The unit can run 8 low power high bright designer LED lights, has 4 USB charging ports and 2 12V sockets to provide all basic electricity.

CURRENTLY IN DEVELOPMENT



Insele Solar Charger

800 Watt + 220V Inverter

8x Lamp & Quad USB Output
Intelligent Battery Management System



Free Yourself from the Constraints of Load Shedding

The 800W Charger Unit can run 8 low power high bright designer LED lights, has 4 USB charging ports and 2 12V sockets to provide all basic electricity needs. When the Charge Unit is coupled with the Inverter Unit it can run a host of 220V appliances including your refrigerator making the Insele Solar Charger 800 Watt with Inverter system your all in one solar power solution



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