

# SINEWAVE INVERTER

## Pure Sinewave Inverter

Model No.

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SWI 250-12  
SWI 250-24

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Manual

Please read this manual before operating your inverter

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## Document name, date and part number

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"SWI 250", September 2020

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Please read this manual carefully before installing and starting up and store it in a safe place.  
If the device is resold, this user's manual must be handed over to the purchaser along with the device.

# 1 Notes on using the user's manual

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**Caution!**

**Safety instruction**, failure to observe this instruction can cause material damage and impair the function of the device. Supplementary information for operating the device.

**Caution!**

**Safety instruction** relating to a danger from electrical current or voltage. Failure to observe this instruction can cause material damage and personal injury and impair the function of the device.

**Note**

Supplementary information for operating the device.

**Action:** this symbol indicates that you need to do something.  
The required action is described step-by-step.

This symbol indicates the result of an action.  
Please observe the following safety instructions.

## 2 General safety instructions

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### 2.1 General safety

**Caution!**

We will not be held liable for claims for damage resulting from the following:

- Faulty assembly or connection
  - Damage to the device resulting from mechanical influences or overvoltage
  - Alterations to the device without the explicit permission from us
  - Usage for purposes other than those described in the user's manual.
- 
- Use the device only as intended.
  - Do not operate the device in a damp or wet environment.
  - Do not operate the device in areas that are potentially explosive.
  - Maintenance and repair work must only be carried out by qualified personnel who are familiar with the risks involved and the relevant regulations.

## 2.2 Safety when installing the device

- Ensure that the device has a firm foundation. The device must be set up and fastened in such a way that it cannot tip over or fall down.
- Take the precautions necessary to ensure that children cannot interfere with operation. Dangerous situations may occur which cannot be recognized by children!
- Do not expose the device to a heat source (such as direct sunlight or heating). Avoid additional heating to the device.

### Electrical cables

- If cables have to be fed through metal walls or other walls with sharp edges, use ducts or wire bushings to prevent damage.
- Do not lay cables which are loose or bent next to electrically conductive material (metal).
- Do not pull on the cables.
- Do not lay the 230V mains cable and the 12/24 V DC cable in the same duct.
- Fasten the cables well.
- Lay the cables so that they cannot be tripped over or damaged.



### Caution!

Note the following basic safety information when using electrical devices:

- Electric shock
  - Fire hazard
  - Injury
- 
- Operate the device only if you are certain that the housing and the cables are undamaged.
  - Make sure the air inlets and outlets of the device are not covered.
  - Ensure good ventilation.
  - Do not connect the 230V output of the inverter to an appliance not using the source of 230V.
  - Even after the fuse triggers, parts of the inverter remain live.
  - Always disconnect the power supply when working on the device.

## 3 Scope of delivery

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### Quantity Description

- 1 Sine wave inverter
- 1 User's manual
- 1 Alligator Clips

## 4 Proper use

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The Pure Sine Wave Inverters convert 12 V (SWI 250-12) or 24 V (SWI 250-24) direct current to a 230V alternating current at a frequency of 50 Hz.



### Warning!

Reverse polarity connection of the battery wires can damage the inverter.

## 5 Technical description

The power inverter DC-AC SWI 250 with USB terminal are designed for rated wattage of electrical use.

The inverter series can be used to operate laptops, most small TVs, VCRs, sound systems and small handy tools, and other portable sensitive electronic products.

The output voltage corresponds to the socket standard (pure sine-voltage)

Please observe the values for constant output power and peak output power (for a max. of 10 min.) As indicated in section „Technical data“ on page 14. Never connect appliance that has a higher power requirement.



### Note

Note the electrical driving appliance (such as power drills or refrigerators), that they often need more power than is stated on the type plate.

## 6 Installation instructions

When selecting the installation location, observe the following instructions:

- The Inverter has to be installed in a dry and clean place not exposed to humidity
- Make sure that the place is well ventilated. If installed inside housing, ensure proper ventilation. At least, keep a free space of 10 cm around the inverter (fig. 4, page 12).
- The air inlets and outlets should not be blocked.
- Installing the inverter on a firm foundation.

## 7.1 General instructions

- On building up an electricity supply network the safety regulations according to the VDE 0100 standard are to be kept.
- Observe the required cable cross section (see table).

Device	Required cable cross section
SWI 250-12	4 – 6 mm <sup>2</sup>
SWI 250-24	4 – 6 mm <sup>2</sup>

## 7.2 Connecting the inverter

- Connect the inverter's alligator clips to the DC source.



### Warning!

Make sure that the connection is not polarity reversed. Reverse polarity connection will blow the internal fuses. It requires the experts to change the fuses.

- When the LED indicator lights green, inverter's AC output and USB terminal have voltage output (others LED indicator as page 11).
- Insert plug of your electrical appliance into the AC output of the inverter.



### Warning!

Reverse polarity connection of the battery wires can damage the inverter.

Always connect only one consumer unit to the 230V socket (fig. 1, page 11) on the front of the device.

### Power on

Before switching on the inverter, check if the AC load has been switched off. The ON/OFF switch is located on the DC connection side. Please see figure 2. It takes some time for the inverter to deliver full power. The Green LED will illuminate. Wait a few seconds before switching on the load.

### Power off

Use the ON/OFF switch located on the DC connection side to power off the inverter.

### Malfunctions

When the Orange or Red LED illuminates, the inverter is shut down due to some reasons. Please refer to the “LED Indicator” table below.

- If this happens, power off the inverter.
- Remove the cause of inverter shut down.
- Power on the inverter again.

### LED Indicator

LED Status	Inverter & USB Status Indicated
No light from The LED	Fuse broke or No USB power
Green Light	Inverter & USB normal
Orange Light	Inverter shutdown USB normal
Red Light	Inverter shutdown No USB power

**\*Inverter shutdown: Over Temperature, Over Voltage & Low Voltage.**



Fault	Cause	Remedy
No output voltagee – LED not Illuminated.	Bad connection between battery and inverter. Internal fuses defect.	Check the cables and contact. In this case send the unit back to the supplier.
No output voltage – Green LED Illuminates.	Current consumption of the consuming unit is too high. Possibly, there is a short circuit in the consuming unit.	Power off the inverter and disconnect the consuming units. Check if there is a short circuit at the consuming unit or the total load was higher than the performance specified within the technical data table.
No output voltage – Orange LED illuminates.	Over Temperature - The inverter has been overheated.	Switch off the inverter and the power consuming units. Wait for approx. 5 - 10 minutes and power on the inverter only. Reduce the loading and ensure better ventilation for the inverter. Then switch on the consuming unit.
No output voltage – Red LED illuminates.	Battery voltage maybe too low or too high. Besides the same situation as Orange LED illuminates, the USB terminal doesn't work either.	Check if the battery voltage is normal. Send the unit back to the supplier.

## 10 Cleaning and caring for the inverter



### Caution!

Do not use sharp or hard objects for cleaning as these may damage the device.

- Occasionally clean the device with a damp cloth.

## 2 YEAR Limited Warranty

The sinewave inverter manufactured by Samlex Europe B.V. (the “Warrantor”) is warranted to be free from defects in workmanship and materials under normal use and service.

This warranty is in effect for 2 years from the date of purchase by the user (the “Purchaser”)

For a warranty claim, the Purchaser should contact the place of purchase to obtain a Return Authorization Number. The defective part or unit should be returned at the Purchaser’s expense to the authorized location. A written statement describing the nature of the defect, the date of purchase, the place of purchase, and the Purchaser’s name, address and telephone number should also be included. If upon the Warrantor’s examination, the defect proves to be the result of defective material or workmanship, the equipment will be repaired or replaced at the Warrantor’s option without charge, and returned to the Purchaser at the Warrantor’s expense. No refund of the purchase price will be granted to the Purchaser, unless the Warrantor is unable to remedy the defect after having a reasonable number of opportunities to do so. Warranty service shall be performed only by the Warrantor.

Any attempt to remedy the defect by anyone other than the Warrantor shall render this warranty void. There shall be no warranty for defects or damages caused by faulty installation or hook-up, abuse or misuse of the equipment including exposure to excessive heat, salt or fresh water spray, or water immersion. No other express warranty is hereby given and there are no warranties which extend beyond those described herein. This warranty is expressly in lieu of any other expressed or implied warranties, including any implied warranty of merchantability, fitness for the ordinary purposes for which such goods are used, or fitness for a particular purpose, or any other obligations on the part of the Warrantor or its employees and representatives. There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives for injury to any persons, or damage to person or persons, or damage to property, or loss of income or profit, or any other consequential or resulting damage which may be claimed to have been incurred through the use or sale of the equipment, including any possible failure of malfunction of the equipment, or part thereof. The Warrantor assumes no liability for incidental or consequential damages of any kind.

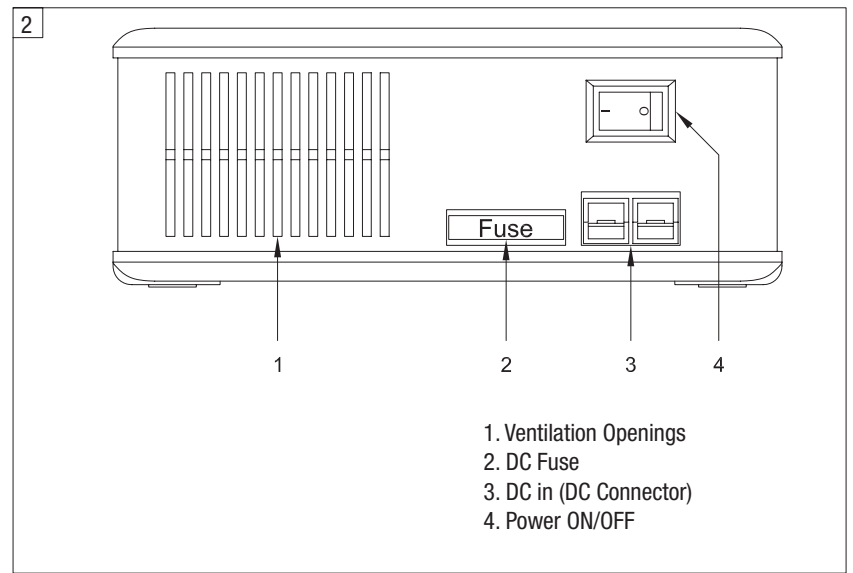
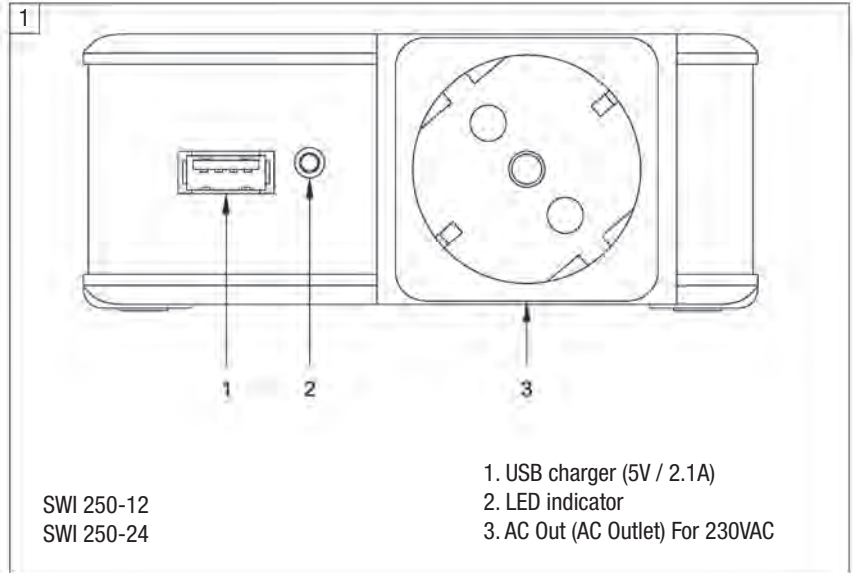
**WWW.SAMLEX.COM**  
**WWW.SAMLEX-SOLAR.COM**

# 12 Disposal

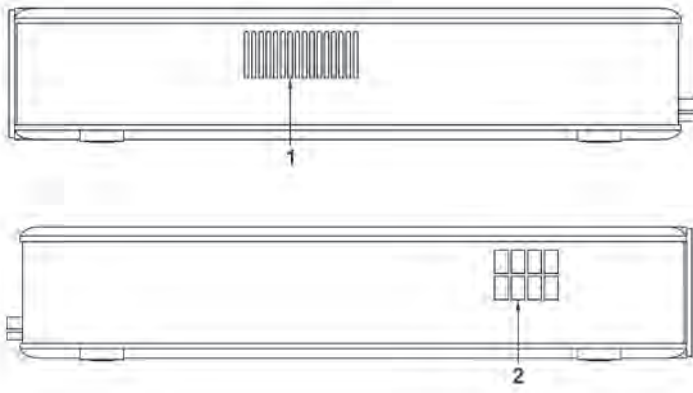
## 12.1 Disposing of packaging material

Do not simply throw the packaging material away. Please observe the following instructions:

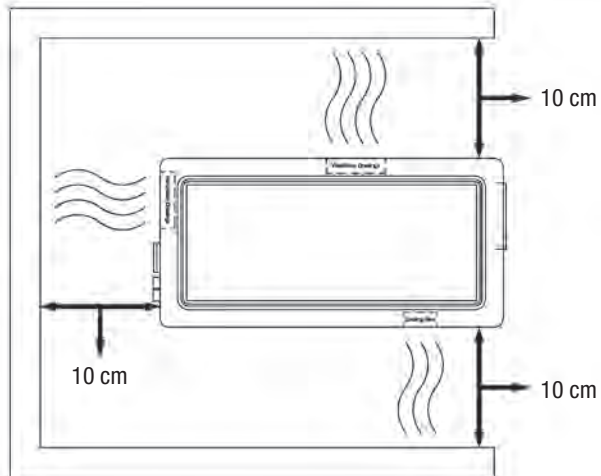
- The cardboard packaging material should be disposed of in a waste paper bin.
- Ask your local authority for the location of the recycling centre closest to you.

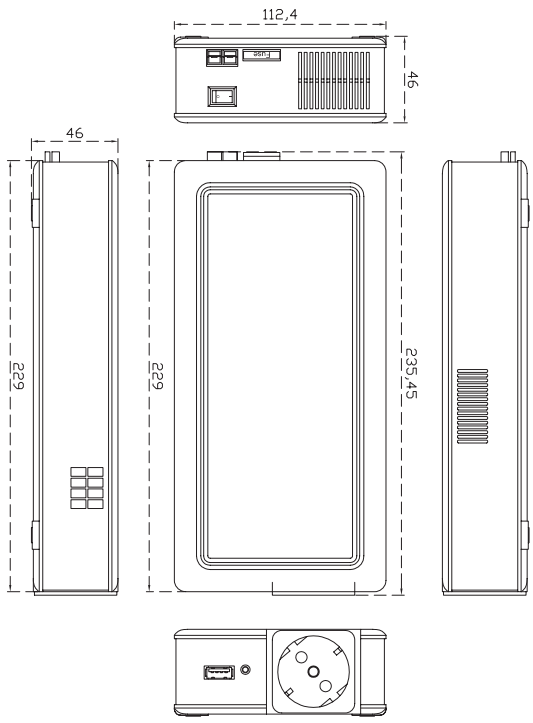


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SWI 250-12  
SWI 250-24

<b>250W Pure Sine Wave Inverter</b>	<b>SWI 250-12</b>	<b>SWI 250-24</b>
Rated input voltage	12VDC	24VDC
Constant output power	250W	
Peak output power	500W	
Maximum input current	30A	15A
Output Voltage	230VAC +/-3%	
Output Frequency	50Hz	
Output wave form	Pure Sine Wave	
Total harmonic distortion	< 3%	
No load current	< 0.7A	< 0.5A
Input voltage range	10V - 16.5V	20V - 33V
Low voltage shutdown	10V	20V
Efficiency up to	86%	88%
Dimensions ( L x W x H )	235.5 x 112.4 x 46 mm	
Weight	885g	
Fan	Temperature Control	
USB Power	5V +/-0.1V /2.1A	
SAFETY	EN 60950-1 : 2006+A11 : 2009+A1: 2010+A12 : 2011	
EMC	EN 55022 : 2010 Class B EN 61000-4-2 : 2009 EN 61000-4-3 : 2006+A2 : 2010 EN 61000-4-4 : 2012 EN 61000-4-6 : 2009 EN 61000-4-8 : 2010 EN 55024 : 2010	
Protections: *Low battery voltage..... *Over battery voltage..... *Overload..... *Short circuit..... *Over temperature.....	Reset mode Automatic Automatic Automatic Automatic Automatic	

# Declaration of Conformity

Responsible Party Name : Samlex Europe B.V.

Address : Aris van Broekweg 15, 1507 BA ZAANDAM, The Netherlands

Phone No : +31-75-6704321

Fax No : +31-75-6175299

Declares under our sole responsibility that the product

Product Name : DC-AC SINEWAVE INVERTER

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Model No. : SWI 250-12, SWI 250-24

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to which this declaration relates is in conformity with the following standards or other normative documents

EN 61000-4-2:2009 EN 61000-4-3:2006+A2: 2010 EN 61000-4-4:2012

EN 61000-4-6:2009 EN 61000-4-8:2010

EN 60950-1:2006+A11:2009+A1:2010+A12:2011

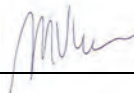
EN55022 class B EN61000-3-2:2006+A2:2009 EN 61000-3-3:2008

EN55024:2010

Representative Person's Name : M van Veen

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Signature :



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Date : 07-09-2020

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