

▪ **Config**

- **Select Language:** runs the utility that allows user to set the language for Aurora Communicator
- **System Configuration:** runs the utility that allows system setup. (see par. 3) Communication port setup and search for connected inverters.

▪ **Statistics**

Runs the utility that allows to display statistics about each single inverter and/or about the whole system.

▪ **Service**

- **Date-Time:** allows user to set date and time for each single inverter. (only works with indoor-type inverters)
- **Inverter Config:** runs the utility that allows user to set some parameters of the single inverter (password-protected)
- **Dumping:** downloads the contents of the inverter memory to the monitoring PC
- **Change Password:** runs the utility that allows the user to change password to gain access to Inverter Config utility.

▪ **Help**

2. Main Interface

1 Inverter List

Displays the list of the inverters monitored by Aurora Communicator. The following information is given for each inverter:

- RS-485 address
- Serial Number
- Model
- State
- Power output

2 Power output

Shows total power [W] output by the whole system. It is the result of all single inverter power outputs added together.

3 Energy

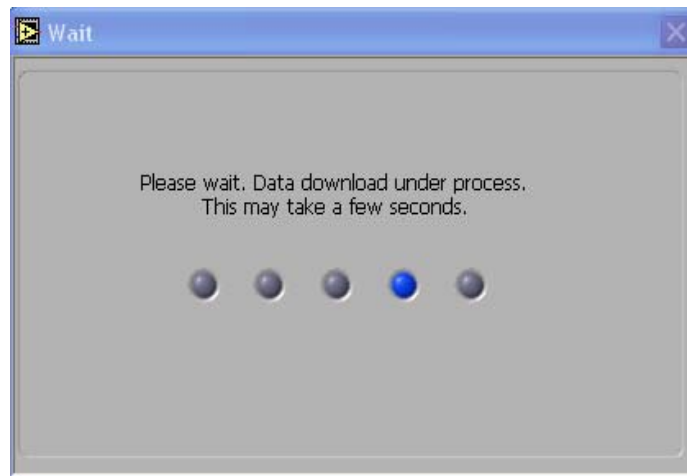
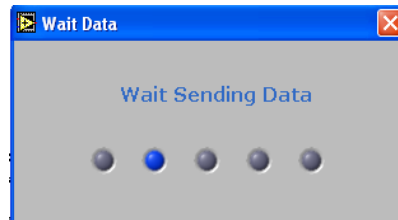
Displays two values [kWh] : Today and Lifetime.

4. Control Panel

Double-click on one line of the inverter list to open the Control Panel that displays detailed information about the selected inverter.

Before opening the Control Panel, you are required to wait for a few seconds or slightly more, depending on the type of selected inverter (indoor or outdoor) and on the type of communication between PC and inverter (RS232 – RS485 – PLM). After this time you will be able to download further data from inverter's memory.

Some dialogue boxes are displayed so that the user is promptly aware of the operations underway.

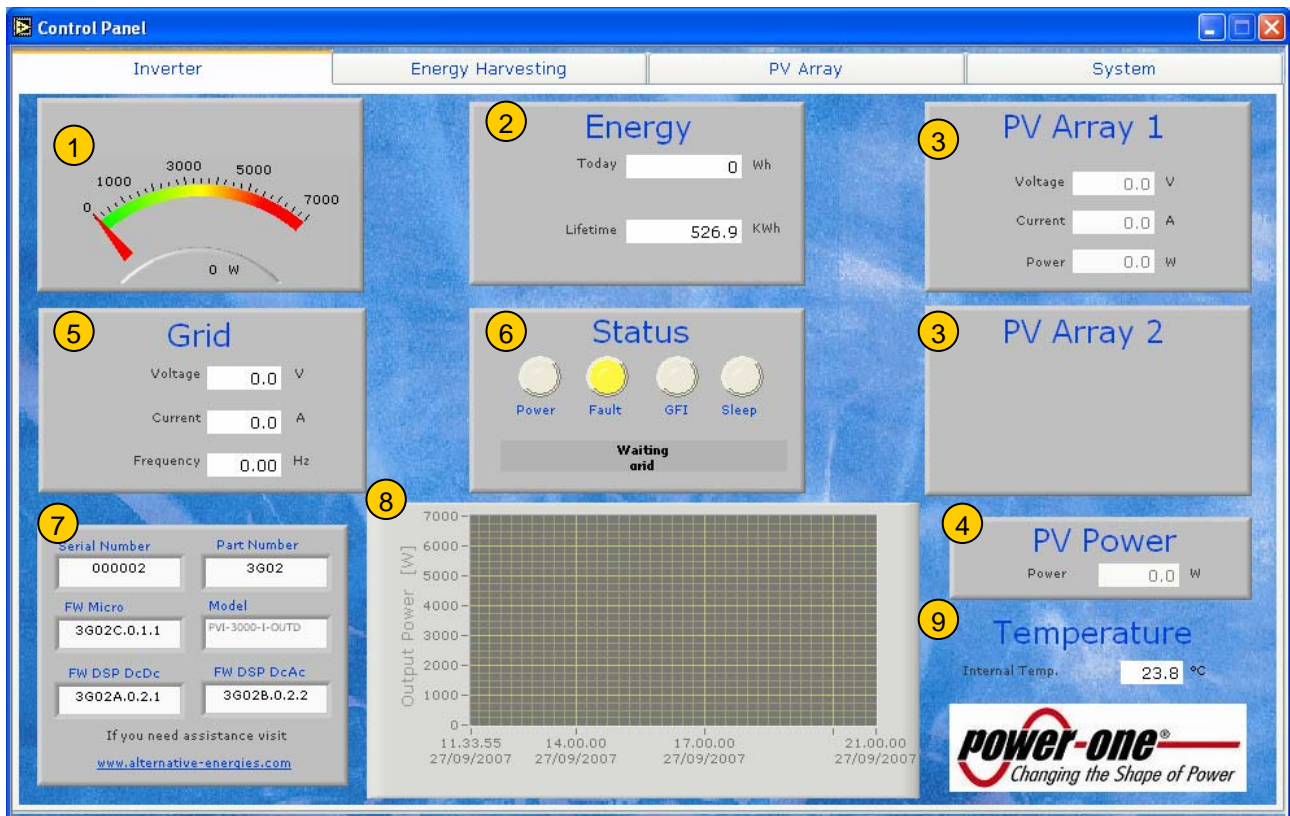


When the Control Panel is active, data concerning the listed inverters are still being monitored.

The Control Panel consists of 4 sections:

1. Inverter
2. Energy Harvesting
3. PV Array
4. System

Inverter



In this section, the user can monitor inverter operation and the operation of the panels that are connected to it.

Displays:

- Power output (Power Meter) 1
- Energy Produced 2
 - Daily
 - Total
- Panel arrays 3

The display could be blurred if the corresponding panel array is not active.

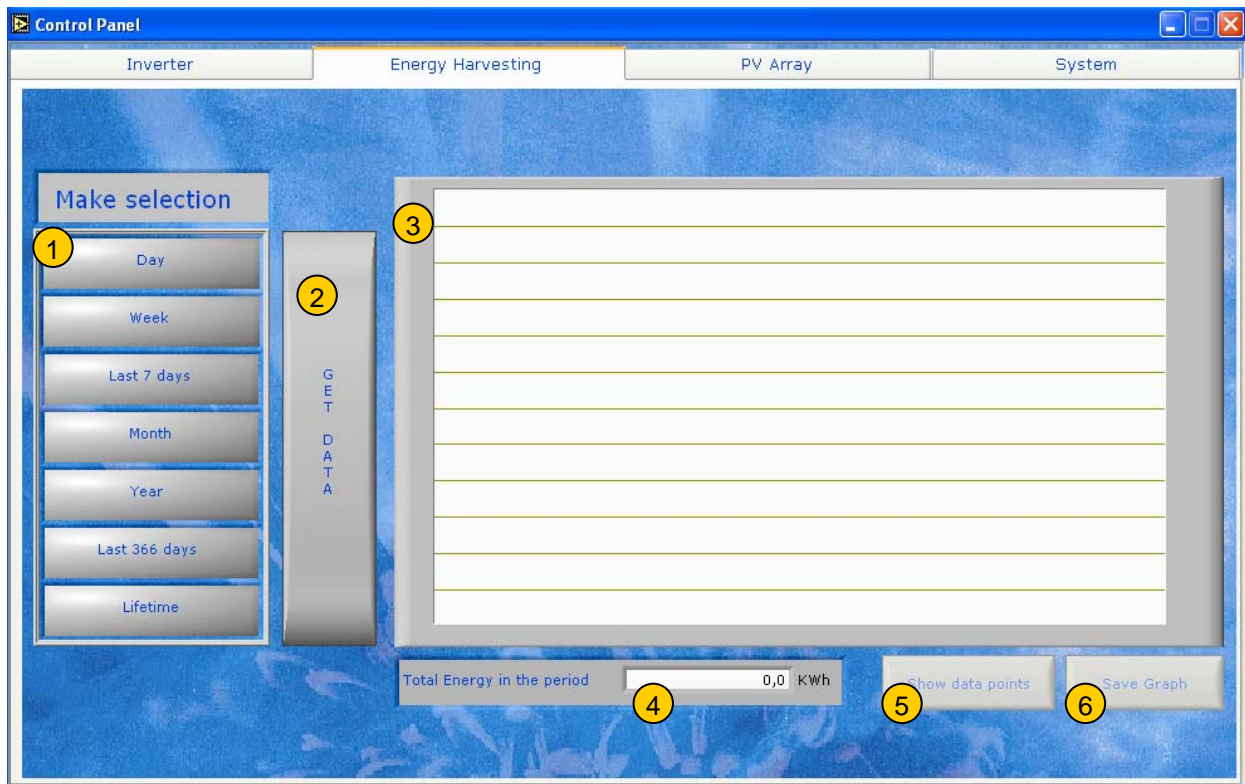
If the inverter is preset for 2 input panel arrays, the following instances could apply:

 1. MPPT parallel (Only the box PV Array1 is displayed)
 2. MPPT independent (Both PV Array 1 and PV Array 2 boxes are displayed)
 - Voltage PV1
 - Current PV1
 - Power PV1

- Voltage PV2
 - Current PV1
 - Power PV2
- arrays overall power 4
The display could result blurred if the arrays are not active
 - Power
- Mains 5
 - Voltage
 - Current
 - Frequency
- System state 6
 - 4-lamp indicator
 - Power
 - Fault
 - Ground Fault
 - Sleep
 - Message
- Product Info 7
 - Serial Number
 - Micro Firmware Version
 - DSP DC-DC Firmware Version
 - DSP Inverter Firmware Version
 - Model
 - Part Number
- Graph of output power 8
- Inverter Temperature 9
 - Inverter inner temperature

Energy Harvesting

(for indoor models)



In this section, the user can display the statistics about the energy accumulated in the current day, in the current week, in the last 7 days, in the last month, in the last year, in the last 366 days and since the inverter was first started up.

Select the statistic to be displayed from the list **1**, then press GET DATA **2**

The graph **3** will show the energy trend in time and the overall value of energy output **4** in the selected period of time

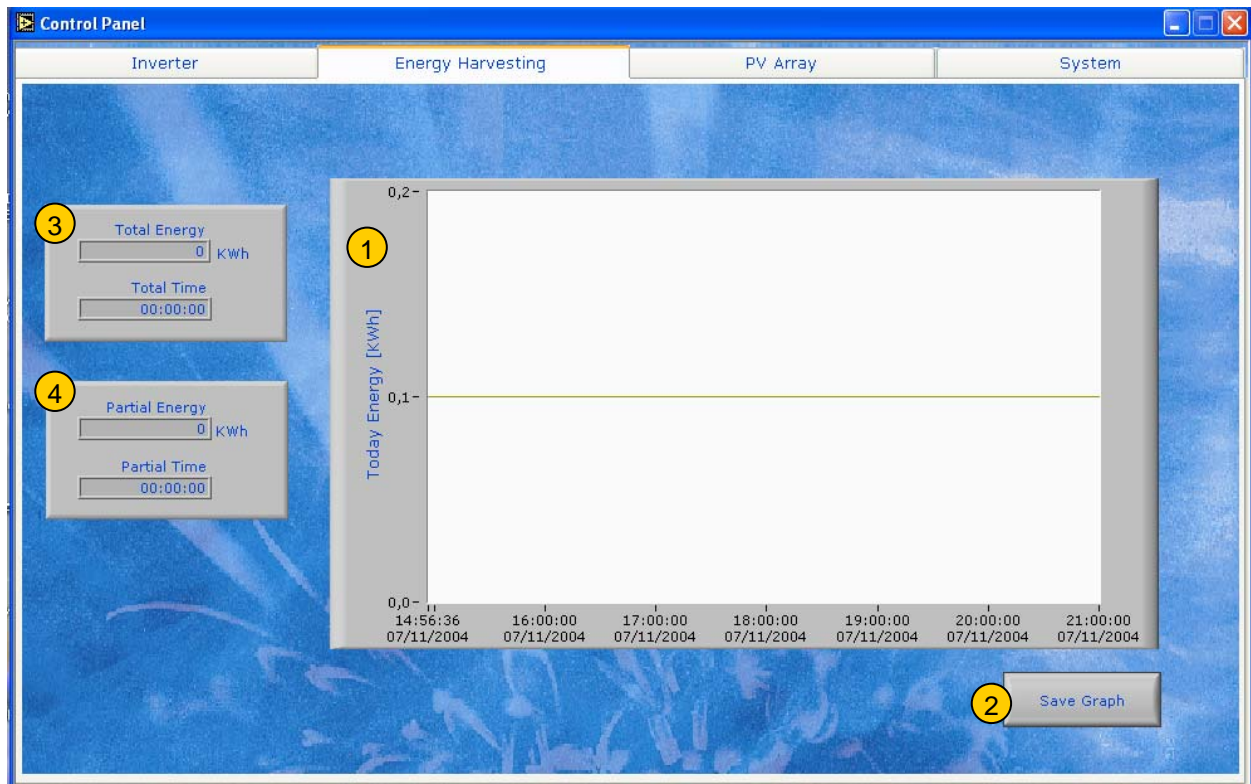
Moreover, for all statistics except for the daily one, it is possible to display both the chart concerning the overall output for the selected period and the chart of the energy output for each single day of the selected period; to do this, just press **5**

It is also possible to save the displayed charts in CSV format by pressing **6**

Charts saved in this section can not be displayed using the statistics utility.

Energy Harvesting

(for outdoor models)



In this page the user can display the chart of the overall energy output **1** by the inverter during the day; save the chart in CSV format by pressing the key **2**. Two counters are also available: total and partial **3** counter for in **4** ter energy and work time. Charts saved in this section can not be displayed using the statistics utility.

PV Array

This section displays voltage and power trends in time relevant to the arrays of installed photovoltaic panels.

Instance with 2 installed arrays

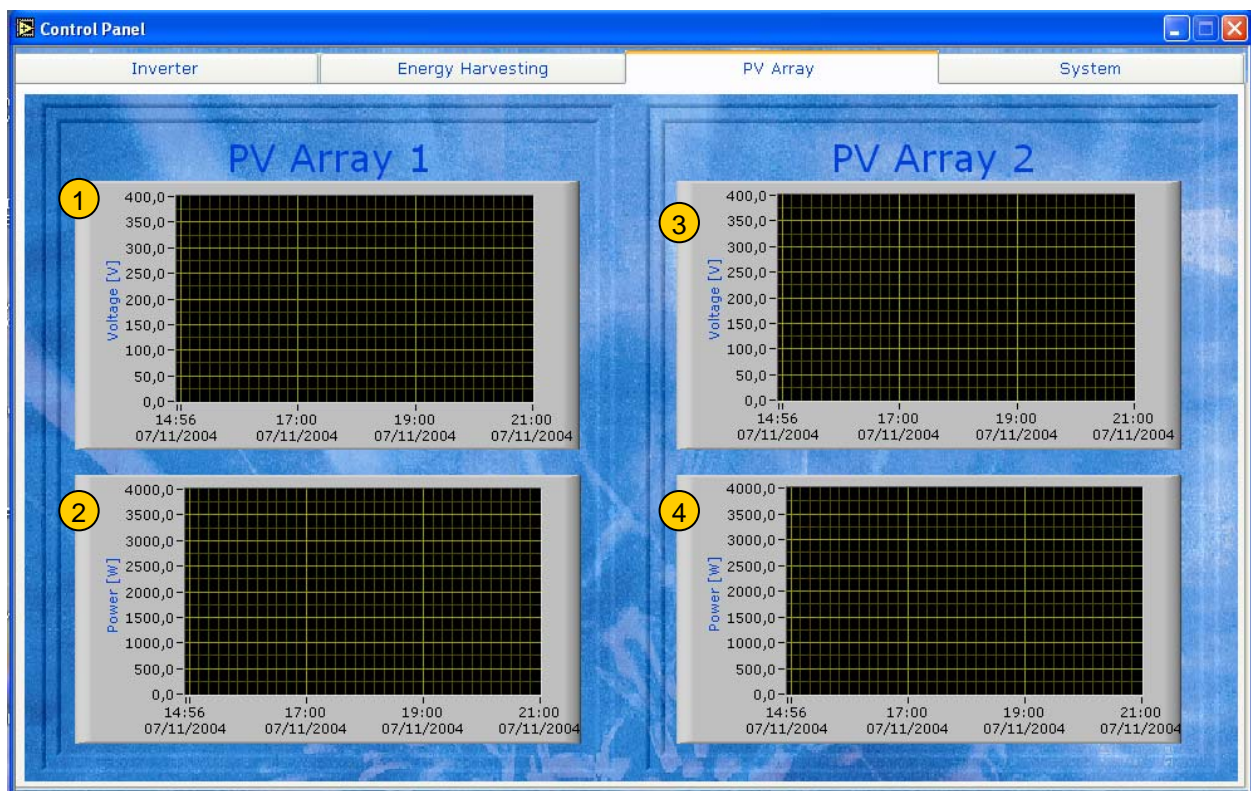
independent MPPT: voltage and power charts are displayed for both arrays

parallel MPPT: only charts relevant to the first array are displayed [the two arrays are considered as one single (bigger) array]

Instance with 1 installed array

Only the charts concerning the first array are displayed.

In case some of the installed arrays are not working, the charts of the corresponding arrays will be blurred.



Array 1 Voltage
Array 1 Power



Array 2 Voltage
Array 2 Power



System

This section displays a chart of the whole system.

Installed panel arrays **1** (the ones that are not working are shown in grey)

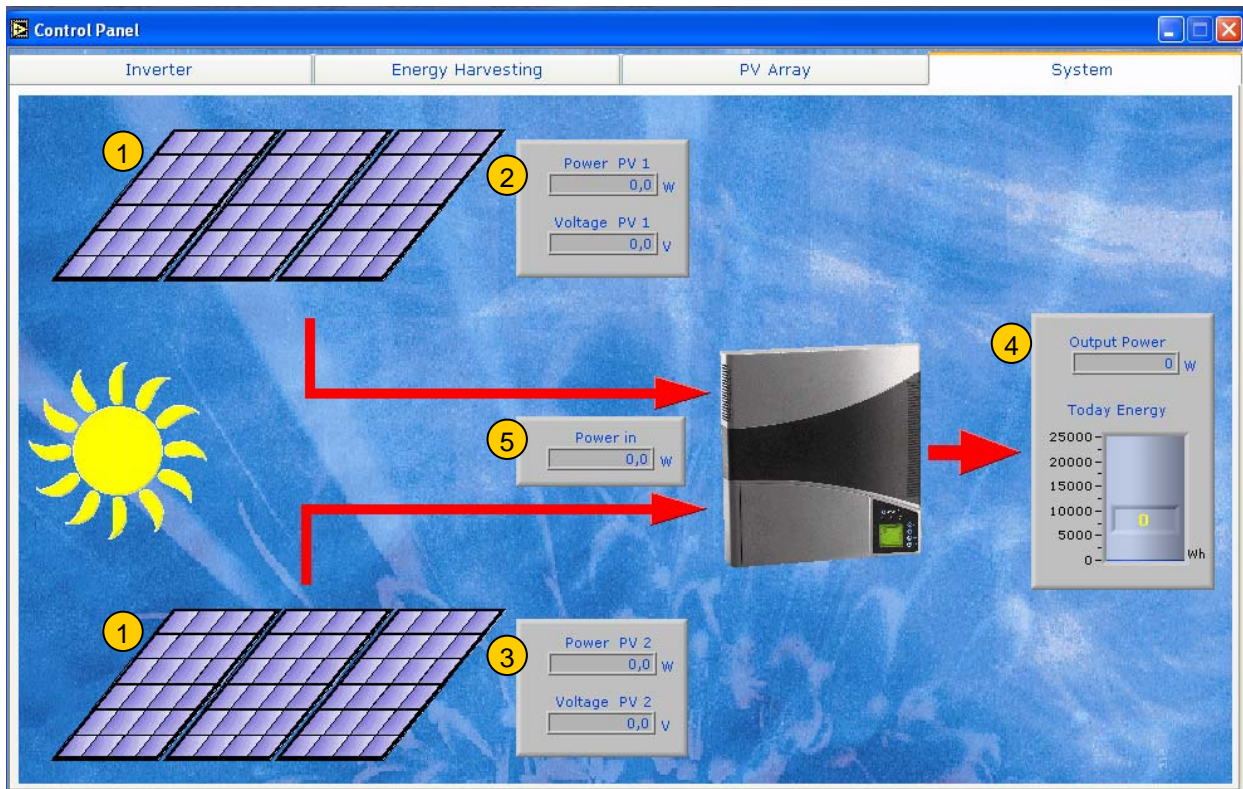
Array 1 Voltage and Power **2**

Array 2 Voltage and Power **3**

Daily output energy - Power output **4**

Power output by arrays **5**


Installed inverter image **6**



5. Services

Setting date and time (indoor version only)

To set date and time, select Config from the main menu and then Date-Time. To correctly display diagrams and statistics, it is recommended to enter consistent data.



The image shows a "Date-Time" configuration dialog box. It features six spinners arranged in two rows. The top row contains "Year" (set to 2000), "Month" (set to 1), and "Day" (set to 1). The bottom row contains "Hours" (set to 0), "Minutes" (set to 0), and "Seconds" (set to 0). At the bottom of the dialog are two buttons: "OK" and "CANCEL".

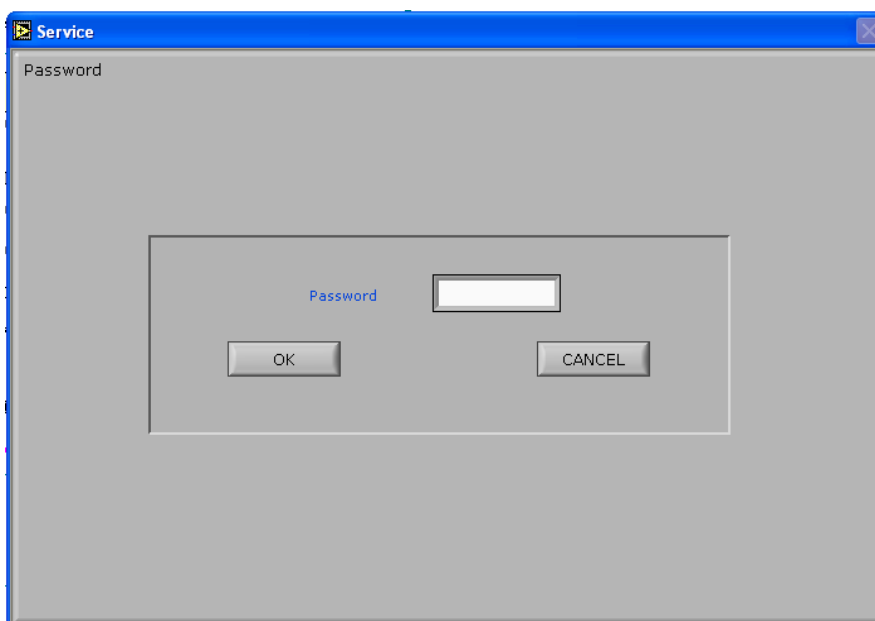
Field	Value
Year	2000
Month	1
Day	1
Hours	0
Minutes	0
Seconds	0

Inverter Configuration

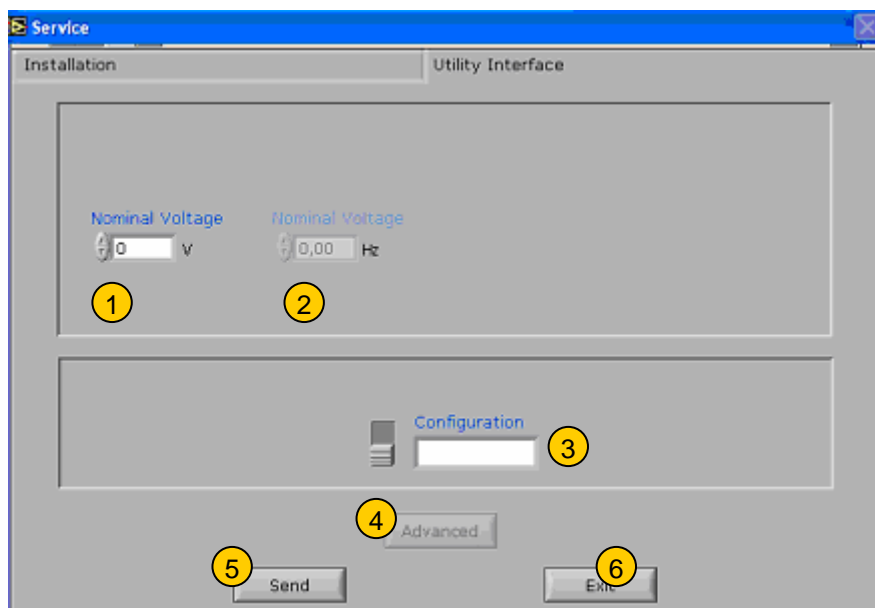
Setup menu can be opened only after entering the relevant password.

Entering the password

After entering the password, press OK; or press CANCEL to quit without gaining access to the services.



If password is correct, the **Utility Interface** page opens.



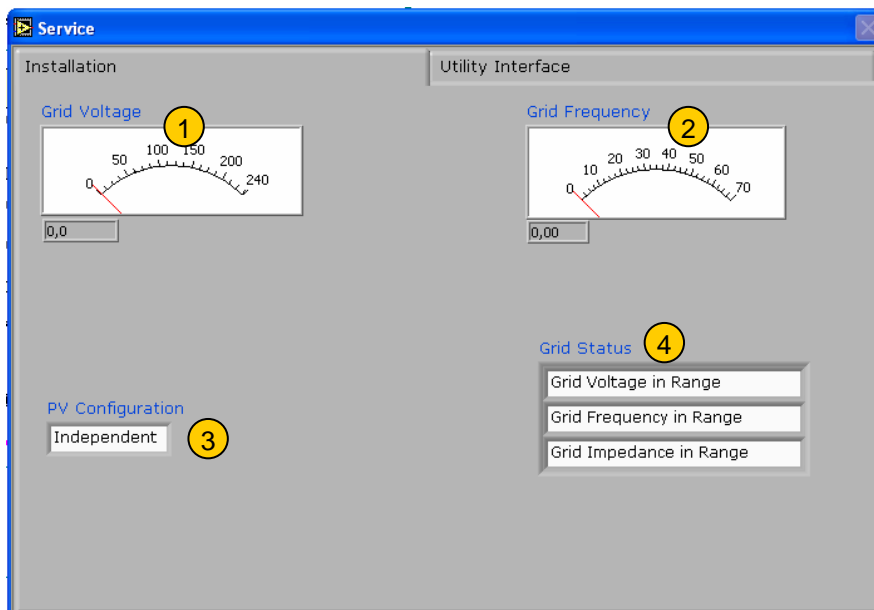
In this page it is possible to display and/or edit (pressing ④ and entering the relevant password) some inverter operating parameters:

- MAINS
 - Rated voltage ①
 - Frequency (European version only) ②
- Panels
 - MPPT setup (Independent – Parallel) ③

To make modifications effective, press ⑤, while press ⑥ to quit and discard any changes.

In case of communication error between PC and Inverter, the user is requested to quit and try again at a later time; the key ⑤ is no longer displayed.

Pressing on the Installation box, user opens the **Installation** window.



This sheet displays some details about inverter operation that could be useful during inverter installation, such as:

- Mains voltage ①
- Mains frequency ②
- Array setup ③
- Mains state ④

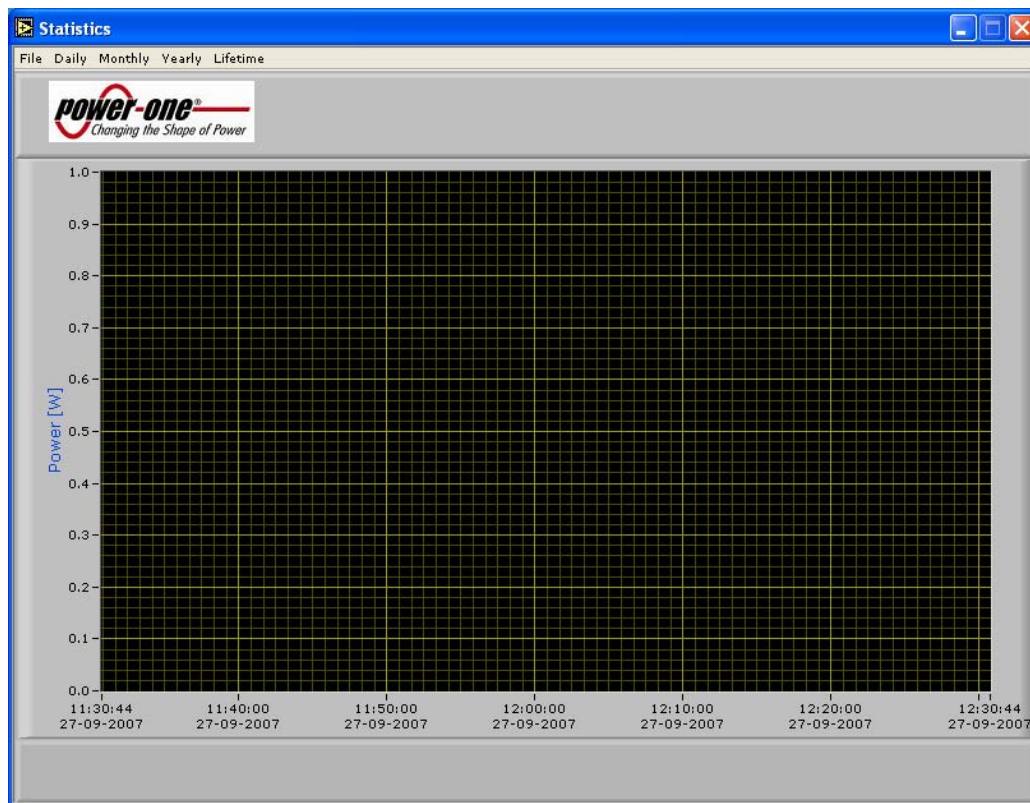
If communication between PC and Inverter is through PLM, Inverter Configuration utility serves interface events more slowly than if connection was through bus RS 485 or RS 232. It is recommended to wait a few seconds after pressing interface buttons.

Displaying Statistics

To display the statistics, select Statistics from the main menu. A new window opens allowing user to select the values for which trend in time must be displayed.

Values can be

1. Daily
2. Monthly
3. Yearly
4. Lifetime



Daily

Values of this type can be displayed with a maximum time step of 10 s. Only data concerning the software operating days can be displayed.

- Energy (Energy output)
- Power Out (Power output by inverter)
- Array Voltage (Voltage of panel arrays)
- Array Input Power (Power output by the panel arrays)

Monthly

Values of this type can be displayed with a maximum time step of 1 day. Only data concerning the software operating days can be displayed.

- Energy (Energy output)

Yearly

Values of this type can be displayed with a maximum time step of 1 day or 1 month. Only data concerning the software operating days can be displayed.

- Energy (Energy output)

Lifetime

Values of this type can be displayed with a maximum time step of 1 month or 1 year. Only data concerning the software operating days can be displayed.

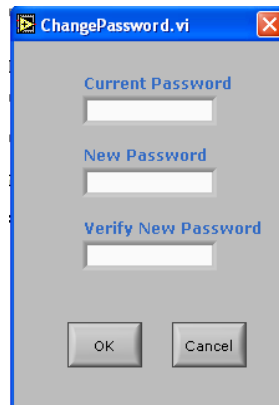
- Energy (Energy output)

Saving Statistics

All displayed statistics can be saved in CSV format by selecting "File" and then "Save as" from the main menu.

Editing Password to gain access to services

This window allows user to edit the password to gain access to Inverter Configuration utility. It is necessary to enter the old password, then type in the new one and confirm it. Changes will apply after pressing OK.



The image shows a dialog box titled "ChangePassword.vi". It contains three text input fields labeled "Current Password", "New Password", and "Verify New Password". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

6. Operating states of the AURORA inverter

Operating states of the single Aurora inverters are displayed as messages both in the fifth column of the main interface Inverter List and in the Status box on Control Panel (Inverter Sheet).

The LEDs on each inverter cover are reproduced both by means of the 4-lamp indicator available on the Control Panel Inverter sheet (6) where there is one more led indicating the Sleep state (inverter off), and by means of the different colours available for the lines within the Inverter List of the main interface.

Green: Normal Operation

Yellow: Failure - not serious

Red: Failure - Serious

Blue: Sleep mode (Inverter off: poor irradiance)

Green-Yellow Flashing: downloading data from inverter memories.