

## **APPARATUS FOR CONVERSION OF ENERGY FOR PHOTOVOLTAIC PLANTS**

### **INVENTION DESCRIPTION**

Apparatus for conversion of energy for photovoltaic plants that is connected between the grid and the panels or photovoltaic modules to convert the DC voltage generated by said modules into an alternating voltage which is injected into the mains.

The voltage transformer output is connected to the low-voltage module by which are connected to voltage transformer one or more inverters to effect the conversion of the voltage generated in the photovoltaic modules at an alternating voltage frequency of the mains, so investors are the means of connecting the device to the photovoltaic modules.

The invention provides for the possibility of including a control module that governs through the drive module connection / disconnection of the high-voltage module. In this case you can connect to the control module or one or more relays irradiance sensors. Furthermore, the control module can be connected to investors to measure its power and also provides that the control module can be connected to the power meter module, so that the control module disconnection module performs high voltage when the power measured by the meter or when power inverters, is below a specified minimum, thereby disconnecting the apparatus during unproductive hours is ensured.

### **APPLICATION BUSINESS SECTORS**

Equipment manufacturers of photovoltaic installations.

### **TECHNICAL ADVANTAGES AND BUSINESS BENEFITS**

- Improvements to effect disconnection of the apparatus when the PV.
- Modules do not produce enough power, or when some malfunction or alarm.
- Allow the device to connect to a remote computer for various device data and the devices connected to it.
- Allows the daily connection and disconnection of the PV modules with respect to the grid, so that losses are avoided work-load voltage transformer power overnight.
- Is provided with an autonomous power supply so that the correct operation is guaranteed during night hours when no photovoltaic generation without feeding the grid.
- Provides for the possibility of including a control module that governs through the drive module connection / disconnection of the high-voltage module.
- Provides that the investor can be integrated in the system and not external to it.

### **CURRENT STAGE OF THE TECHNOLOGY**

A prototype of the technology

### **INTELLECTUAL PROPERTY RIGHTS**

The technology comes from research conducted through a project and belongs to the Institute for Energy Technology.

The technology is protected by patent "Aparato de transformación energía para parques fotovoltaicos". ES20070003270.

### **COOPERATION SOUGHT**

Companies interested in the following forms of cooperation:

- Agreement patent license for implementation and use of technology.

- Agreement for the development of the R & D (TC) to complete the development of technology, or application to other sectors.

#### **RELATED IMAGES**



#### **CONTACT DATA**

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