CONFIGURATION MANUAL

ITR 2.0

SOLIS

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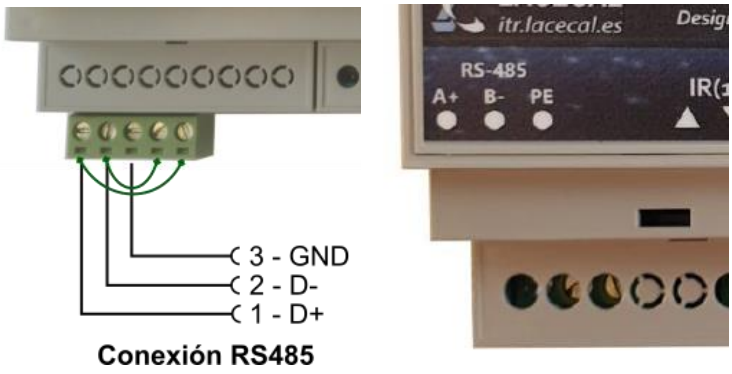
1 TABLE OF CONTENTS

2 INTRODUCTION

The ITR 2.0 Self-consumption and Zero Injection Manager can establish communication and control the PV production of SOLIS inverters via the RS485 communication bus. The connection to the inverters will be made using the RS485 bus available in the lower left corner of the ITR.



Conexión RS485

Depending on the model, the designation of the output connections may vary, checking the equivalences in the following table:

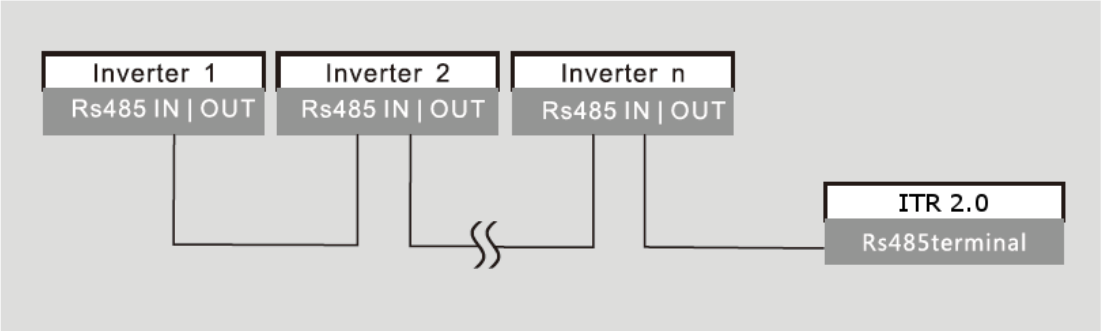
ITR Connector	
NO.	Function
1	D+ / A+
2	D- / B-
3	GND / PE

	**Refer to the specific SOLIS manuals for RS485 bus connection and configuration options.**

	**This manual is a supplement to the manuals of the inverter manufacturer and the ITR 2.0 itself.** The information given in this manual covers the particular details of ITR 2.0 communication with SOLIS inverters using the RS485 bus, but does not replace the manufacturer's and ITR manuals, which should be consulted when installing the system.

3 CONNECTION

Following the manufacturer's instructions, all the inverters in the system are connected in series using the available RS485 IN and OUT connections. The ITR 2.0 will always be located at one end of the bus.



4 INVERTER CONFIGURATION

When configuring the inverters, a different RS485 address must be assigned to each inverter in the system. To do this, follow the specific instructions for each inverter model.

6.3.2 Set Address

This function is used to set the address when muti inverters are connected to three monitor.
The address number can be assigned from "01"to "99"(see Figure 6.4).
The default address number is "01".

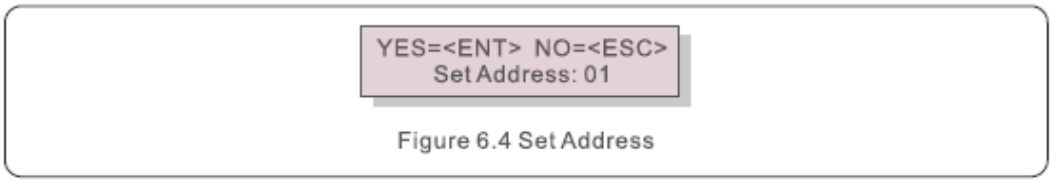
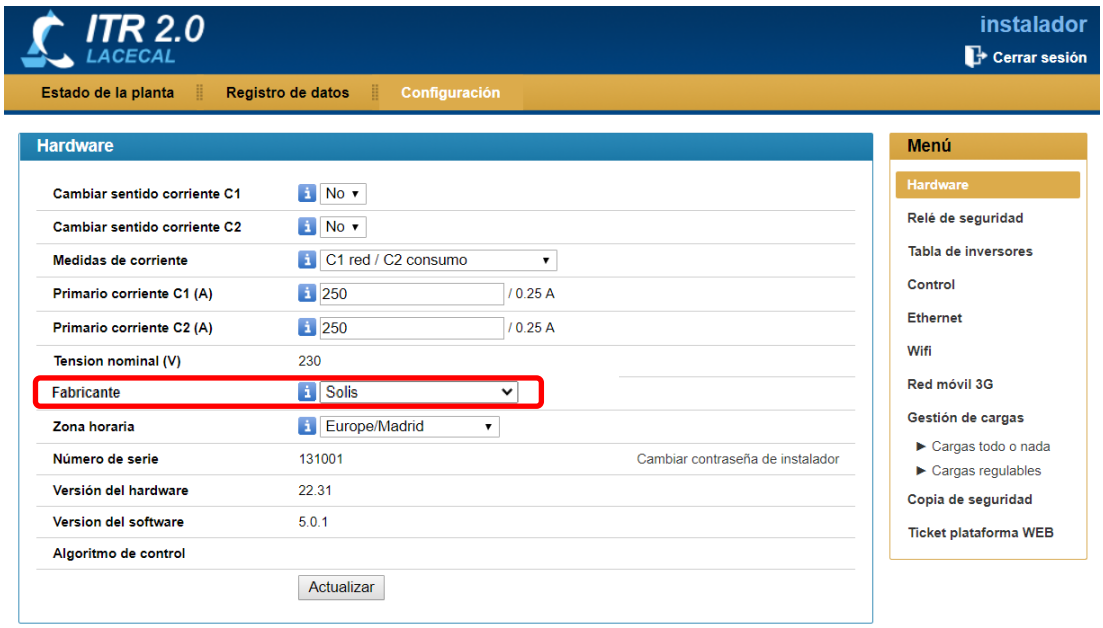


Figure 6.4 Set Address

Press the UP/DOWN keys to set the address. Press the ENTER key to save the settings.
Press the ESC key to cancel the change and return to the previous menu.

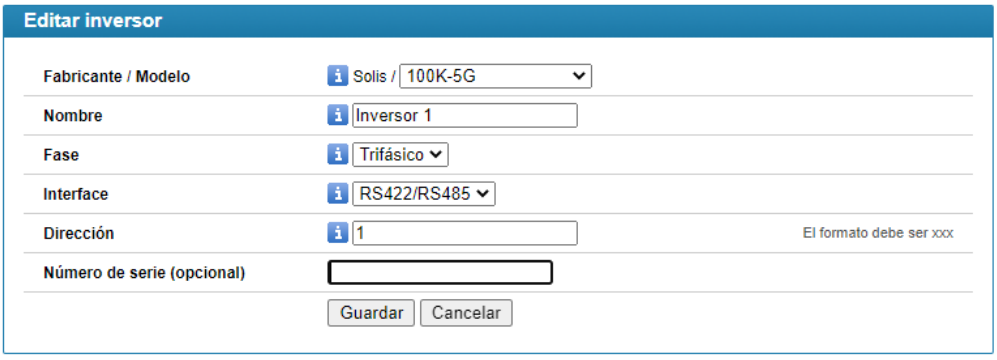
5 ITR 2.0 CONFIGURATION

To configure the inverters in ITR 2.0 the first step is to select from the list of manufacturers the option '**Solis**' in the menu 'Configuration' -> 'Hardware'.



Next, in the 'Inverter table', the 'Add new inverter' button will be used to configure all the inverters in the plant.

The following window will then appear, where the particular data of the inverter must be entered:



- Model: The inverter model will be selected by means of the drop-down menu.
- Name: This is the name assigned to the inverter and will be used to identify it later in the data registry.
- Phase: If the inverter is three-phase there is no possibility to change the selection. If the inverter is single-phase, the grid phase in which it is connected will be indicated.
- Interface: RS422/RS485 will always be selected to use the serial port integrated in the ITR and available on Connector A.
- Inverter address: This is the address assigned to the inverter during the configuration described in section 4.1.2. 4.
- Serial number: This is an optional field to identify the inverter.

Once all the data has been configured, the inverter will be added by pressing the 'Add' button, which will automatically return to the 'Inverter Table'.

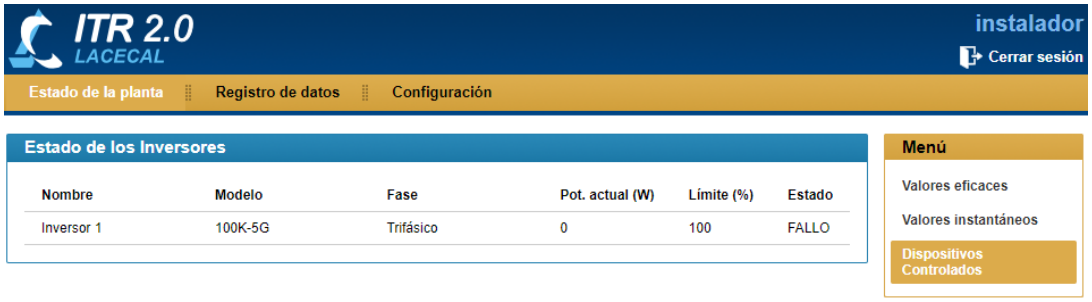
The same process must be repeated for each inverter in the plant.

6 FUNCTIONAL CHECK

Finally, once the entire system has been configured, it is advisable to perform some checks to verify that it is working properly.

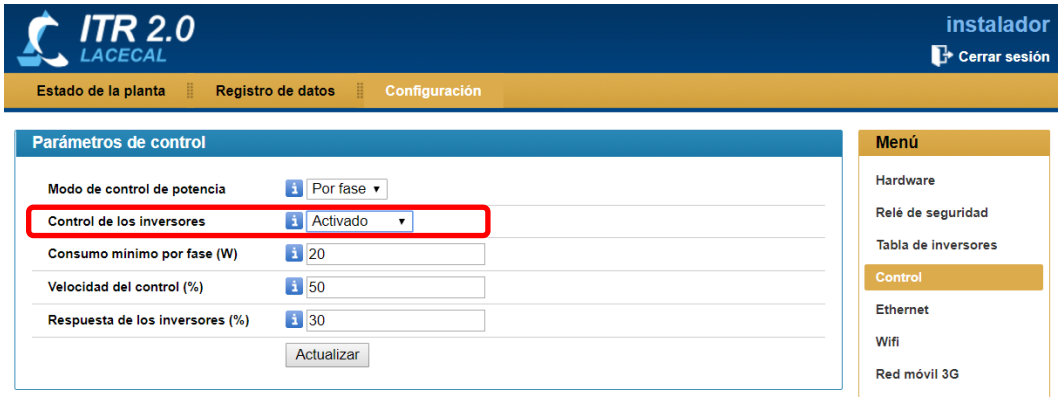
6.1 INVERTER COMMUNICATION

The first step is to verify that the communication with all inverters is correct. To do this, access the menu 'Plant Status' -> 'Controlled Devices', where a list of all inverters will appear. This list shows the current power they are generating, the percentage of regulation applied and the communication status.



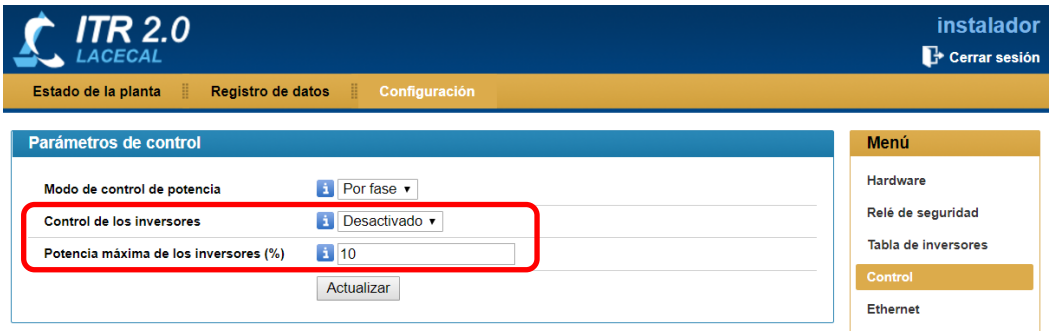
6.2 POWER REGULATION

It is also possible to verify that the power regulation is working. To do this, access the 'Configuration' -> 'Control' menu.



The default situation is that the inverter control is active to avoid dumping energy into the power grid. However, it can be temporarily deactivated to verify that the inverters adjust their production to the selected value.

To do this, select 'Disabled' in the 'Inverter control' option and then enter the maximum power percentage (with respect to the nominal power of each inverter) that is allowed to be generated. Values between 0% (off) and 100% can be selected.



	**Do not forget to return this option to its original setting to perform the zero injection control.**