

How to set up a new inverter

REFUso1 100K

REFUstore 50/88K

by using REFUset Desktop
via Ethernet connection



Download REFUset and get Firmware package

Visit our website: www.refu.com and in the download area you can find REFUset configuration tool:

<https://www.refu.com/en/downloads/>

Download the setup file and install it in your computer.

Also download Firmware version for REFUsol 100K / REFUstore 50K/88K. It is a zip file. Extract the file to your PC.

Firmware and Files

Instructions and Software

- Instructions for inverter update
- Tool REFUset ←
- Instructions for setting up inverters with REFUset app_ English
- Instructions for setting up inverters with REFUset app_ Greek
- Instructions for setting Ethernet in REFUset app_ English
- Instructions for setting Ethernet in REFUset app_ Greek

Firmware

- Firmware V. 300-01-10-12-S for REFUsol 13-46K
- Firmware V. 310-01-03-40-S for REFUsol 100K and REFUstore 88K ←

Install REFUset and connect to inverter

Once installation is complete, connect your PC to inverter by using an Ethernet cable.

Then double click the icon in order to launch REFUset



Connection window opens:

- Select the IP Address of the Inverter that you want to connect to
- Click “Ok” icon

Note: PC and Inverter must be under the same Local Network

Check Network Connections → Ethernet → Internet Protocol Version 4 (TCP/IPv4)

Factory default IP address of inverter is 192.168.130.30

A screenshot of the REFUset application window. The window title is 'REFUset'. It has a 'Connect method' dropdown menu set to 'Static'. Below this is an 'Interface' section with two radio buttons: 'Ethernet' (selected) and 'COM'. Under 'Ethernet', there are three input fields: 'IP address' (192 . 168 . 130 . 30), 'Host name' (empty), and 'TCP port' (21063). Under 'COM', there is a 'Port' dropdown menu set to 'COM3 - Standard Serial over Blu'. Below the interface section is a 'Protocol' section with a 'USS address' input field set to '0'. At the bottom right, there are 'Ok' and 'Cancel' buttons.

Set Country and Nominal grid voltage

Once your PC is connected a window will pop up in order to select the Country and the Nominal grid voltage.
Please select carefully the voltage from the drop down menu.
Inverter will save these settings and reboot.

The screenshot displays the REFUset software interface. The main window shows the 'Configuration' tab with a 'Live data' dropdown set to 'AC'. The 'Static data' section lists: Inverter type: REFUsol 100K, Firmware package version: 310-01-01-17-5, Serial number: 320000019, MAC address: 502DF4165D07, Country setting: No country, Nominal voltage: 0 V, and Nominal frequency: 0 Hz. The 'Feed-in conditions' tab is active, showing various voltage and frequency settings. A 'Change country code' dialog box is open, showing 'Country' set to 'Greece-Continent' and 'Nominal grid voltage' set to '400V / 230V'. A 'Save' button is visible at the bottom right of the dialog. The status bar at the bottom indicates 'Status: Connected on 192.168.130.30:21063' and 'Rebooting...'.

Check FW version

Once you connect again, in the upper left box, you can see all inverter details. In case the Firmware package version is older than the one you downloaded from REFU's site, you have to update inverter.

e.g.

The actual FW version is 310-01-01-17-S.

On site there is a new version (310-01-03-40-S)

So a FW update is recommended.

Firmware

- Firmware V. 300-01-10-12-S for REFUsol 13-46K
- Firmware V. 310-01-03-40-S for REFUsol 100K and REFUstore 88K

The screenshot shows the REFUset software interface. A red box highlights the 'Static data' section, which contains the following information:

Static data		Live data	
Inverter type:	REFUsol 100K	Active power:	0 W
Firmware package version:	310-01-01-17-S	Reactive power:	0 W
Serial number:	320000019	Current L1:	0.0 A
MAC address:	502DF4165D07	Voltage L1:	0 V
Country setting:	Greece-Continent	Current L2:	0.0 A
Nominal voltage:	398 V	Voltage L2:	0 V
Nominal frequency:	50 Hz	Current L3:	0.0 A
		Voltage L3:	0 V

Below the static data, there are several monitoring and configuration tabs:

- Actual frequency monitoring
- Phase-to-phase voltage monitoring
- Average voltage monitoring
- Feed-in conditions
- Power settings
- Reactive Power
- Permanent Power Limitation

The 'Feed-in conditions' section is expanded, showing the following settings:

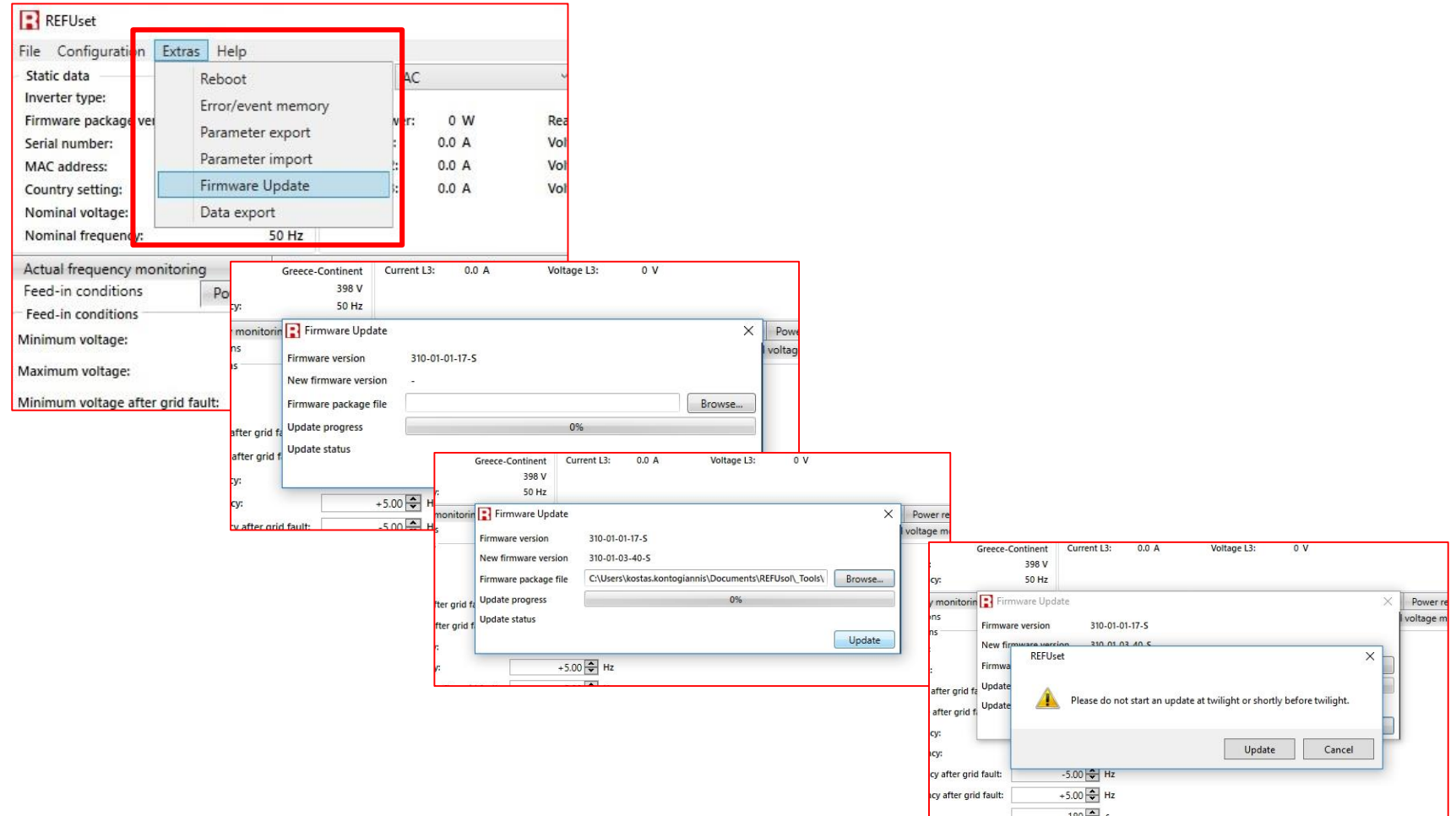
Minimum voltage:	80 %
Maximum voltage:	120 %
Minimum voltage after grid fault:	80 %
Maximum voltage after grid fault:	120 %
Minimum frequency:	-5.00 Hz

Update FW version

Go to Extras → Firmware Update
 Select the FW package you downloaded.

Click on Update button.

A message will appear informing you that
 you should not update inverter if
 time is close to sunset.
 Click on “Update” again.

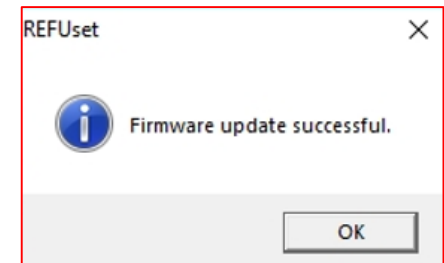
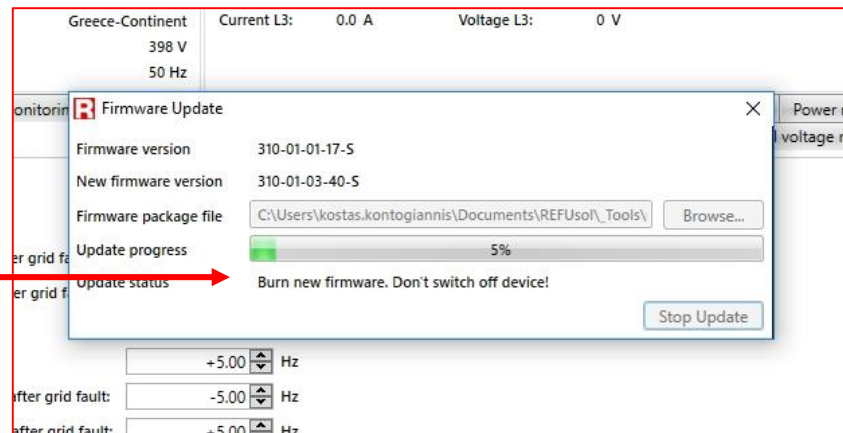
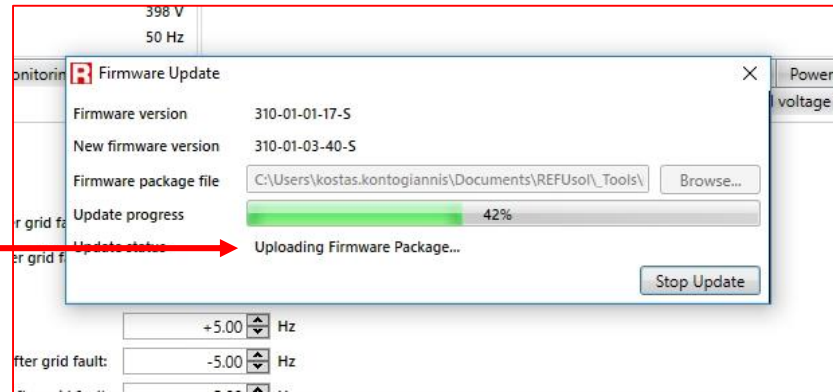


Update FW version

Update has two stages:

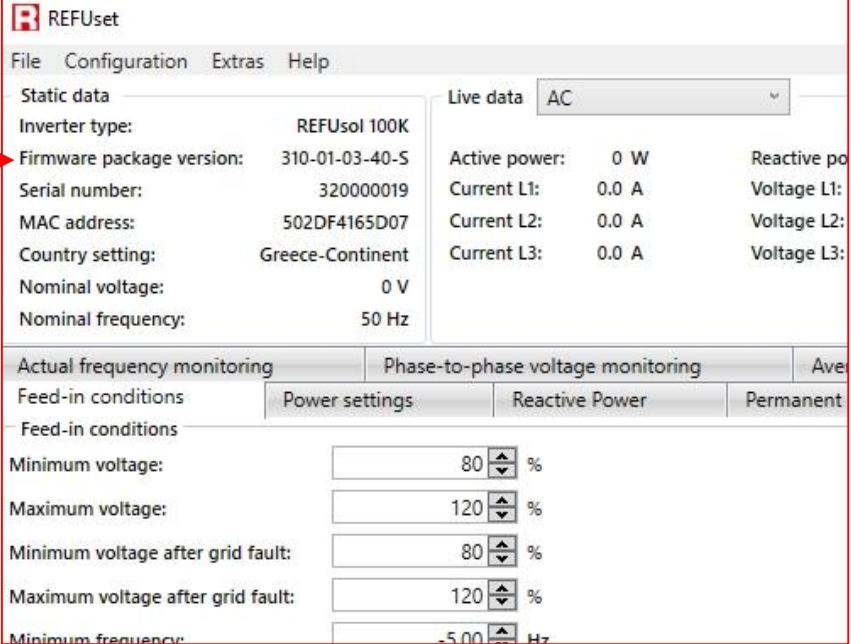
- Uploading new Firmware from PC to inverter
- Inverter is updating (burn)

Once update is over, a message will appear



Check new FW version

In the upper left window, you can see the new FW version.
Your inverter is ready for operation.



The screenshot shows the REFUset software interface. The title bar reads 'REFUset'. The menu bar includes 'File', 'Configuration', 'Extras', and 'Help'. The interface is divided into several sections:

- Static data:** Inverter type: REFUsol 100K; Firmware package version: 310-01-03-40-5; Serial number: 320000019; MAC address: 502DF4165D07; Country setting: Greece-Continent; Nominal voltage: 0 V; Nominal frequency: 50 Hz.
- Live data:** A dropdown menu is set to 'AC'. Below it, Active power: 0 W; Current L1: 0.0 A; Current L2: 0.0 A; Current L3: 0.0 A; Reactive power: 0.0 W; Voltage L1: 0.0 V; Voltage L2: 0.0 V; Voltage L3: 0.0 V.
- Monitoring tabs:** 'Actual frequency monitoring' is selected. Other tabs include 'Phase-to-phase voltage monitoring' and 'Average power monitoring'.
- Feed-in conditions:** A sub-section with tabs for 'Power settings', 'Reactive Power', and 'Permanent'. Under 'Power settings', there are spinners for: Minimum voltage: 80%; Maximum voltage: 120%; Minimum voltage after grid fault: 80%; Maximum voltage after grid fault: 120%; Minimum frequency: -5.00 Hz.

A red arrow points from the text on the left to the 'Firmware package version' field in the static data section.

