



Start your smart change

SNOCU®
PLUG & PLAY THREE PHASE
INSTALLATION MANUAL
REGALGRID.COM



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DECLARATION OF CONFORMITY

This device satisfies all the dispositions of DIRECTIVE 2014/53/UE OF THE EUROPEAN PARLIAMENT AND COUNCIL of April 16th 2014 concerning the harmonization of legislature of Member States in relation to the selling of radio apparatus and its abrogation of directive 1999/5/CE. For a full version, visit www.regalgrid.com/download.

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▶ LEGAL NOTICES

Declaration of conformity

Regalgrid Europe Srl declares, under its own responsibility, that the product SNOUCU (all versions: DIN, Table and Plug&Play) adheres to and it is compliant with the requirements of:

- Radio Equipment Directive 2014/53/EU.
- Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU.
- Health&Safety (Art. 3(1)(a)).
- EN60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013.
- EN62311:2008 electronic and electrical equipment related to human exposure restrictions for


electromagnetic fields (0 Hz – 300 GHz).

- EMC (Art.3(1)(b))
- EN55032:2012.
- EN55024:2010 (with reference to EN301489-v1.9.2&EN301489-17v2.2.1).
- SPECTRUM (Art.3(2)).
- EN300 328 v2.1.1 covering wide band transmission systems and data transmission equipment operating in the 2.4GHz ISM band.

R Disposal and Recycle

RoHS – This symbol indicates that the product respects the international RoHS (Restriction of certain Hazardous Substances) that restricts the use of certain dangerous substances in electrical equipment put on the European Market

from July 1st, 2006 onwards. This is part of a series of EU directives on environment close to the WEEE Directive (Waste Electrical and Electronic Equipment).

 RAEE – With regards to law 49 of 14/03/2011 on “Implementation of the EU Directive 2012/19/UE on “Rifuti Apparecchiature Elettriche e Elettroniche (RAEE)”.

CE

C The CE marking indicates that this product is in conformity with the norm within the Union and its presence means that its evaluation of conformity is respected.

Security

Read and follow the instructions to use the device with safety:

- Read this manual carefully;
- Keep this manual for future consultations;
- Follow the local directives on electrical tasks;
- Have a qualified worker perform the required steps on the electrical system;
- Installation of SNOCU device must be performed by qualified and certified installers.

Not following these instructions can cause fires, electrical shocks, injuries

and damages of other nature.

- ⚠ Risk of electrical shock and tension trouble. All the malfunctions must be inspected by a qualified technician. Please do not open SNOCU casing.
- ⚠ Risk of electrical arches and electric shock (life threatening). It is forbidden to short circuit tension connections and/or neutral line.
- ⚠ Risk of burns. Do not touch the unit while it is working or immediately after its disconnection.

⚠ Risk of fire and Short circuit. The device must be protected from foreign objects and liquid substances.

⚠ Install the units in a location where the pollution degree is less than or equal to 2.

⚠ Do not install the device in humid places or in the vicinity of water.

⚠ The temperature range of the device is between -5°C and +50°C. Do not install in places where the temperature exceeds the range or near heat sources.

⚠ Inbound current and voltage cannot surpass the values dictated by the device specs.

⚠ Disconnect the electrical grid before installation, maintenance or any other interaction with the device.

CONTACTS

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SNOUCU® Plug&Play installation guide

⚠ WARNING!

Follow all the precautions written on the packaging and on the installation manual.

– Do not, under any circumstances, install the device with a live system.

There is risk of explosions, fire and electrocution if this precautions are ignored. The producer of the device will not be liable if this precautions are not followed.

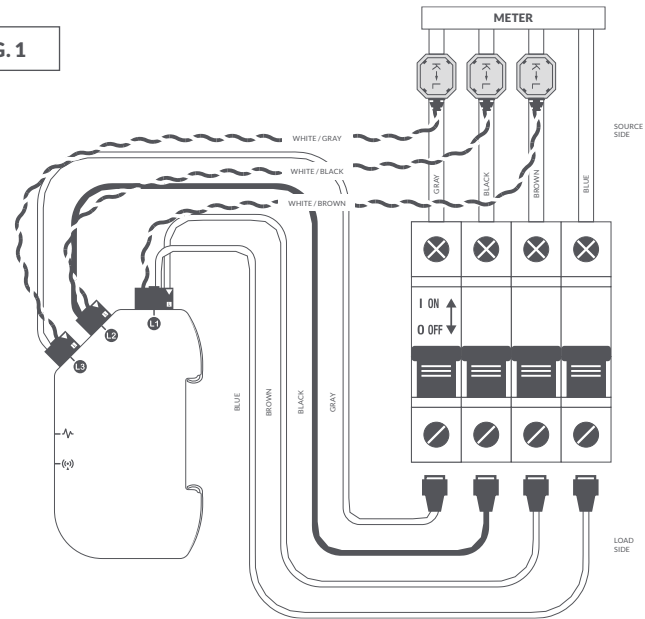
– Do not modify the installation of the

device while the system is live.

- Do not apply direct heat.
- Do not pour liquids on the device or put it near water.
- Do not leave the device in a humid place or with direct sunlight.
- Keep away from Children.

These are the necessary devices for a correct installation: a flashlight, an open or crypted (WEP, WPA-PSK or WPA2-PSK2) wi-fi connection that supports IEE 802.11b/g/n.

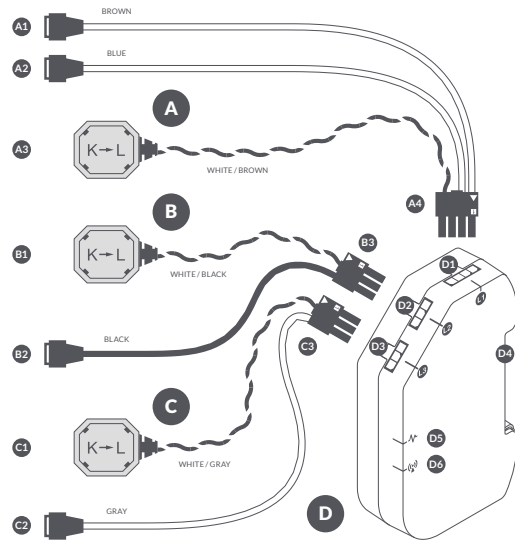
FIG. 1



▶ DEVICE DESCRIPTION

- A1** Tension reference (and power supply) for phase L3
- A2** Neutral reference
- A3** Current Clamp for phase L3
- B1** Current Clamp for phase L2
- B2** Tension reference for phase L2
- C1** Current Clamp for phase L1
- C2** Tension reference for phase L1
- ABC** Current Clamps
- A4** Male 4 pin connectors
- B3** Male 3 pin connectors to be connected to D2 female 3 pin connectors
- D3** Male 3 pin connectors to be connected to D3 female 3 pin connectors
- D4** DIN rod hooking
- D5** Power LED
- D6** Wi-Fi connection LED

FIG. 2



▶ DEVICE INSTALLATION

Refer to picture 1 for the steps between 2 and 11. Electrical panel can differ from user to user. The electrical panel on which you operate can differ sensibly from the one in this manual.

- ⚠ During the installation of the device, you may enter in contact with high voltage parts that may be potentially dangerous. The device must be installed by qualified installer that can operate on the electrical lines. The producer will not be responsible in any way if the precautions are not complied with. The installation must respect the electrical standards and local regulation of the country its installed in.
- ⚠ Before installing the device, read

this manual carefully and be sure to comprehend it fully.

⚠ Do not install the sensor if the power source is not compliant with the requirements. Power source must be 230V/50Hz as per the European standard.

ℹ The numbers refer to the step by step installation guide.

⚠ WARNING!

The four screws to which we connect the reference cables for PHASE and NEUTRAL are just downline of the main switch (marked as 'x' in Picture 3). This implies that the two screws on the top of the main switch can be in tension even when the safety switch is open. DO NOT

CONNECT THE CONNECTORS TO THE SCREWS UPWARDS OF THE MAIN SWITCH. Always connect the connectors to the four screws downline of the main switch as these are not in tension, even if the electrical panel switched is off.

PLEASE NOTE


The reference cables of PHASE and NEUTRAL must be connected to the respective screws, assuming these are in range. These cables are also used to power up the sensor.

1. Turn on your flashlight. Regalgrid suggests keeping both hands free and to set the flashlight in a way that lights all the working space.
2. Open the main switch panel.

3. Remove the cover of the electrical panel on which we will be working on to access all the cables.
4. Free the magnets of the reference cables if they got connected to each other or to any other surface before connecting them to the main switch.

The ferrite core of the current clamp must be inserted in a part of the system upwards of the main switch, so current could still be present.

5. Check that the ferrite core of the current clamp is intact*. Grasping it only by the cables, attach the clamp around the PHASE upwards of the main switch, with the SOURCE (marked as 'K') towards the supply (arrow towards the loads). The



current clamp does not involve a direct contact with the PHASE cable and its installation will not require anything but closing it around the PHASES cable and lock its hooking. To the equal colour of the phase reference, the colour of the current clamp must coincide (refer to the sticker on each clamp), attach the brown clamp on PHASE L1, the white clamp on PHASE L2 and the black clamp on PHASE L3.

** If the clamp seems broken, do not install the device.*

6. Visually identify the screws related to the phase/phases and to neutral downside of the main switch, without alimentation. Connect the magnetic probe of the black cable, with a fuse in the middle, to the screw of the phase.

After that connect the magnetic probe of the blue cable to the neutral. It is important to follow this order of connection. Make sure that the magnetic connectors correctly touch the screws of the main switch.

7. Connect the male 4 pin connector to the female 4 pin connector on the device.
8. Attach the device to the DIN rod.
9. Verify the installation to make sure everything has been installed properly.
10. Close the Electric panel.
11. Turn back on the main switch. You can verify the functioning of the device by the blinking LEDs on the device itself.

WI-FI CONFIGURATION

Follow these steps to connect the device

to an existing local Wi-Fi network.

12. On a PC or on a smartphone with active wi-fi connection, check all the wi-fi networks and locate the one called **regalgrid_XXXX_YYMMDD...**


13. Connect to this network using the password: **regalgrid**.

14. Open a browser and go to the address: **192.168.10.1**

15. You will be presented with the **Regalgrid** provisioning page.

16. Choose the local wi-fi you want to connect the device to and insert its password (if present). Password must be provided by the owner of the wi-fi network you are connecting to.

17. If successful, the device will proceed in connecting to the wi-fi network that has just been selected.

 In case of problems, turn off and turn on again the device by using the main switch. The wi-fi network called **regalgrid_XXX_YYMMDD...** will appear again and the SETUP process could be repeated following the steps from 12 to 17.

18. Once the Wi-Fi network is configured, you need to register the device on the Regalgrid portal, using the Regalgrid APP available on your chosen APP STORE.

19. Use the INSTALLER credentials to access the APP in administrator mode (if needed, register on the Regalgrid portal at www.regalgrid.com)

20. Choose the SNOUCU SETUP function and insert the requested data.



ADDITIONAL INFORMATION

Electrical features of the sensor

Compatible with power supplies:

230V/50Hz.

Device Energy consumption: 1,5Wh

Operating temperature: from -5°C to +50°C

Wi-Fi: IEEE802.11b/g/n 2.4GHz

Included CTs for max 100A current.

Fuse: 250 V, T1.5mA

Working frequency band: from 2412MHz

to 2472MHz – Numbers of Channels:13

– Channel Spacing 5MHz Maximum RF

Power less than 19 dbm.

OTHER DOCUMENTATION

All the updated documentation on Privacy, Conformity, Warranty and else it's available at www.regalgrid.com/download. Scan the QR code for immediate access to the documentation.





REGALGRID
sharing your power

