

ABB monitoring and communications VSN300 Wifi Logger Card FAQ

General questions

I have owned an ABB inverter for a long time. I decided to install the new VSN300 Wifi Logger Card. How can I be sure that it is compatible with my inverter?

The VSN300 Wifi Logger Card is compatible with most ABB string inverters. Please refer to the [inverters compatibility matrix](#) for further information on inverter models as well as the inverter's firmware version compatibility with the logger card. In the event you need to upgrade the inverter firmware, please refer to the inverter's technical documentation or ABB web site for instructions.

If I am using an inverter with only one RS485 port which already hosts a VSN300 Wifi Logger Card. Is it possible to use the RS485 port to support an external device in addition to the VSN300 installed inside the inverter, such as an ABB data logger, third party data logger, or the PVI-PMU.

Most ABB inverters allow this possibility; however, it is not recommended to use the VSN300 Wifi Logger Card with any other external device connected to the inverter's RS485 port.

Am I obligated to use the mobile app Plant Viewer for Mobile for either remotely or locally monitoring my inverters hosting a VSN300 Wifi Logger Card?

No, you are not obligated to use the mobile app Plant Viewer for Mobile. There are other ABB products that you can use to monitor inverters. Plant Viewer for Mobile is the new mobile app for Android and iOS devices. Plant Viewer for Mobile is part of the Aurora Vision® Web Management Platform composed of Plant Portfolio Manager (for professional users) and Plant Viewer (for casual users). Plant Viewer for Mobile is really a version of Plant Viewer designed for mobile devices allowing customers to remotely monitor their own PV plants that use ABB data loggers. The VSN300 Wifi Logger Card is the newest data logger suitable for residential installations which allows customers to take advantage of the full Aurora Vision® experience with no need to install any external devices. Plant Viewer for Mobile provides the additional capability to locally monitor a PV plant when you do not have an internet connection or an Aurora Vision® account.



Installation procedure

I installed the VSN300 Wifi Logger Card into the inverter and configured it by following the installation wizard. I also created my own Aurora Vision® account by following the last installation wizard steps for remotely monitoring my PV plant. Can I use Plant Portfolio Manager?

The Aurora Vision account created by following the VSN300 installation wizard enables customers to use Plant Viewer and Plant Viewer for Mobile. These programs are specifically designed for casual users (like the site owner). However, Plant Portfolio Manager is an advanced web portal which allows professional users (like installers or any plant administrator) to remotely manage an entire portfolio of PV plants. To get a Plant Portfolio Manager account, please do not follow the steps of the installation wizard. You will need to refer to the procedure available at the link below to create this account:

<https://www.auroravision.net/dash/userregistration/newuser.html?locale=null>

If you already have a Plant Viewer account, contact your local service support office and ask for access to the Plant Portfolio Manager portal.



I want to replace my inverter with a new one. Can I use the VSN300 Wifi Logger Card installed in my old inverter?

Yes, you can. All you need to do is to install the VSN300 board into the new inverter. No additional configuration is required and the board will start working properly as soon as the new inverter is turned on. The VSN300 board will recognize its new environment and adapt itself automatically. Please be advised that the SSID Wi-Fi network generated by the VSN300 board, as well as its host name, depends on the inverter data (for example the model, production date, etc.). These values will change as soon as the board is installed into a new inverter.

Can I install or uninstall the VSN300 Wifi Logger Card into a powered up inverter?

The installation of the card must be performed by a professional technician and the inverter must be turned off before opening the cover and installing the card. Be advised that high voltages are present in the conductive components of all inverters. Prior to performing any work, the inverter must be disconnected from all power sources on the AC and DC sides and the waiting time must be observed allowing the capacitors to discharge. Please refer to the inverter's technical documentation for any additional information on performing this operation.

I own an inverter with an installed VSN300 Wifi Logger Card. Currently the VSN300 Wifi Logger Card is connected to my Wi-Fi router and I use my Aurora Vision® account for remotely monitoring my PV plants. What happens if I need to change the router or the internet service provider?

As soon as the VSN300 board senses a lack of connection to the router, it will start working as an access point. It may take a few minutes from the time the router connection is lost. In this condition, it is possible to access the VSN300's Internal Web User Interface (WUI) as the ADMIN user and change the network configurations by opening the SETTINGS → NETWORK page.

My VSN300 Wifi Logger Card is installed in an inverter but I'm not able to connect it to my Wi-Fi router. I cannot find my Wi-Fi network among all the networks scanned by the board. How can I fix the issue?

Your VSN300 Wifi Logger Card is Wi-Fi Certified™ meaning that it is compatible with any Wi-Fi compliant environment and device. If the home Wi-Fi router is not reachable from the VSN300 board, this is most likely due to either too much distance between the two devices or to some obstacle weakening the 2.4 GHz communication signal between the two devices. If distance is the problem, it is recommended that you install a commercial Wi-Fi extender between the router and logger card. If an obstacle is present, remove the obstacle, change the location of one of the devices, or install a commercial Wi-Fi extender in a location that circumvents the obstacle.

VSN300 Wifi Logger Card

FAQ

I own three inverters in my PV plant. How many VSN300 Wifi Logger Cards should I install?

A VSN300 Wi-Fi Logger Card has to be installed in each inverter within the PV plant.

I have lost the user/admin password for accessing the VSN300 Wifi Logger Card's internal Web User Interface (WUI). How do I recover or reset the password?

In case of a lost GUEST or ADMIN password for accessing the VSN300's internal Web User Interface (WUI), a specific procedure to recover them has to be run. Push the "FORGOT MY PASSWORD" tab and enter the *Product Key* code provided with the packaging for the VSN300 board. If the *Product Key* code is also lost, please contact your local Customer Service office.

My Wi-Fi router is out of order or turned off. How do I check if my inverter with the VSN300 Wifi Logger Card is working properly?

The VSN300 Wifi Logger Card is an advanced data logger enabling customers to both remotely and locally monitor their own PV plants. If the VSN300 board is not connected to a home's Wi-Fi network it will still work as an access point to generate a Wi-Fi network identified by the SSID structure as shown below:

ABB-xxxxx-zzzz-wwyy where:

- xxxxx is the inverter's S/N
- zzzz is the inverter's P/N
- wwyy is the production date of the inverter

For example: ABB-365718-2M08-1514

When the VSN300 board works as an access point there are two possibilities to locally monitor the inverter:

- SITUATION 1: Use a smartphone or tablet (iOS or Android) and run the mobile app *Plant Viewer for Mobile*. After installation, it is possible to view the inverter's production and parameters via the mobile app.
- SITUATION 2: Use any Wi-Fi device connected to the Wi-Fi network generated by the VSN300. Access the internal Web User Interface (WUI) through a browser using one of the following web addresses:
 - VSN300's IP address 192.168.117.1 (for example: <http://192.168.117.1>)
 - VSN300's SSID followed by ".LOCAL" (for example: <http://ABB-365718-2M08-1514.LOCAL>)
 - VSN300's MAC ADDRESS (if for example VSN300's MAC address is 84:DD:20:A6:BE, use <http://ABB-84-DD-20-A6-BE-F3.LOCAL>. Please note that the colons (':') are changed to hyphens ('-')

Access to my VSN300 Wifi Logger Card's internal Web User Interface (WUI) as a GUEST user does not require a password. Can some intruder change the settings or write parameters?

It is possible to access the VSN300's internal Web User Interface (WUI) as a GUEST user.

Access as a GUEST user allows the customer to only read data with no possibility to set or modify system settings. However, accessing as an ADMIN user allows customers to read and write data providing the customer with the ability to change all system settings. While setting a password for a GUEST user is optional, to set a password for an ADMIN user is mandatory. It is possible to enable or disable the password for a GUEST user any time by accessing the VSN300 Web User Interface (WUI) as an ADMIN user and modifying the configuration settings.

When I installed the VSN300 Wifi Logger Card I decided to not set a password for a GUEST account.

To enable or disable a password for a GUEST user, configuration settings must be changed by accessing the VSN300 internal Web User Interface (WUI) as an ADMIN user.

I already own an Aurora Vision® account. Am I obligated to get a new account for every new installation of a board?

No, you are not obligated. Furthermore, creating a new account would not be the preferred way to manage your system. If you already own an Aurora Vision® account, you can use it for monitoring any new VSN300 as well as any other ABB data logger installed and registered to the Aurora Vision® Web Management Platform. Some or all of the last installation wizard steps can be skipped when registering the new board. If you have a Plant Portfolio Manager account, you can log in as an ADMIN user to register and/or manage new PV plants or new boards.



How far can the VSN300 Wifi Logger Card be installed from the router / access point ?

Generally the range of a residential Wi-Fi network depends on many factors. Below are the most significant :

- the specific IEEE 802.11 standard the product is compliant with (IEEE 802.11 a/b/g/n):
VSN300 Wifi Logger Card is a Wi-Fi Certified™ product compliant with the IEEE 802.11 b/g/n (@ 2.4 GHz). A general rule of thumb in home networking says that IEEE802.11 b/g access points or routers support a range of up to ~ 45 m (150 feet) indoors and ~90 m (300 feet) outdoors; IEEE 802.11n devices typically have twice the range of IEEE 802.11 b/g devices
- the nature of obstructions between transmitter and receiver:
Obstructions like brick walls, metal frames or siding present in a home can greatly reduce the range of the Wi-Fi LAN;
- interferences in the installation environment:
Microwave ovens, cordless phones and other equipment that operates in the same frequency as the VSN300 (~@ 2.4GHz) also affect the range.

Other factors to be considered are the overall strength of the device transmitter (access point or wireless router) and its antenna sensitivity;

Is it possible to extend the range of a Wi-Fi LAN ?

Of course, it's possible to extend a Wi-Fi LAN to get much longer distances covered. Below are some suggestions on how to do that:

- install a new access point or Wi-Fi extender in chain with the main Wi-Fi routers;
- change the transmitter's antenna (access point / router) to a higher-gain directional type;
- use a high quality Wi-Fi extension cable to put the receiver's antenna closer to the access point / router.
- Install IEEE 802.11n device: IEEE802.11n technology enables covering higher distances thanks to its capability to use "reflections" of the signal to strengthen it and eliminate cold or weak spots in the signal.

Support and service

ABB supports its customers with dedicated, global service organization in more than 60 countries and strong regional and national technical partner networks providing complete range of life cycle services.

For more information please contact your local ABB representative or visit:

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