

# Uponor Smatrix Heat Pump Integration to NIBE products



Quick Guide



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### **1** Prepare installation

1.1 Uponor Smatrix Wave/Wave PLUS/Base PRO



Make sure the system contains one of the following product setups.

- Uponor Smatrix Wave X-165 (controller) and Uponor Smatrix Wave I-167 (interface)
- Uponor Smatrix Wave PLUS X-165 (controller) and Uponor Smatrix Wave PLUS I-167 (interface)
- Uponor Smatrix Base PRO X-147 (controller) and Uponor Smatrix Base PRO I-147 (interface)

## 1.2 NIBE heat pump/indoor module



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Make sure the NIBE heat pump/indoor module has the correct hardware and software versions. Go to menu **3.1** in the NIBE product and find input version (last section).

• input version must be 34 or higher.

Contact NIBE support to replace the input card if needed.

• display version must be 5539 or higher.

Update the display software using NIBE Uplink if needed.

### **2** Install heat pump integration

2.1 Connect heat pump/indoor module to controller



#### **<b>NIBE**







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## STOP

#### Warning!

Risk of electrical shock! Electrical installation and service behind secured 230 V AC covers must be carried out under the supervision of a qualified electrician.

To connect a compatible NIBE heat pump/indoor module to the controller:

- 1. Ensure that the power is disconnected from both the controller and the heat pump/indoor module.
- 2. Remove the screw and open the cover for the optional connections compartment.

3. Route the cable via appropriate cable entries on the controller and heat pump/indoor module.

See heat pump/indoor module manual for information about which cable entries to use.

- Connect controller connection terminal IN to terminal block AA3-X4:5-6 on the heat pump/indoor module input card.
- Connect controller connection terminal OUT to terminal block AA3-X6:AUX (use a free AUX input) on the heat pump/indoor module input card.

See heat pump/indoor module manual for information about AUX inputs.

6. Optional connection heating/cooling (if available) switch connection

Heating/cooling can be switched by either:

The heat pump/indoor module decides when to switch between heating and cooling (heat pump/indoor module is master and Uponor controller is slave).

Connect controller connection terminal **GPI** to terminal block **AA3-X7:C-NO** on the heat pump/indoor module input card.

In the Uponor Smatrix Interface (I-147 or I-167), set Integration > General Purpose Input (GPI) to Heating/ Cooling switch (default), and Heating/Cooling > Operating mode to H/C Slave (default).

 An external switch is used to switch between heating and cooling (both the heat pump/indoor module and Uponor controller are slaves)

Connect the switch to controller connection terminal **GPI**, and to the heat pump/indoor module input card.

In the Uponor Smatrix Interface (I-147 or I-167), set Integration > General Purpose Input (GPI) to Heating/ Cooling switch (default), and Heating/Cooling > Operating mode to H/C Slave (default). See heat pump/ indoor module manual for information about how to switch between heating and cooling.

- Use the Uponor Smatrix Interface (I-147 or I-167) to switch manually between heating and cooling.
- Secure the cable properly with a cable clamp in the controller enclosure.
- 8. Close and secure the lid to the optional connections compartment in the controller.

## 2.2 Activate heat pump integration

When the function is activated, the system will provide the heat pump with temperature sensor data from Uponor system thermostats to adjust the supply temperature. Device integration specific settings also appear.

#### Caution!

If **Heat pump integration** is deactivated make sure that it also is deactivated in the heat pump. Otherwise it may affect the operation of the heat pump.

#### Uponor Smatrix Wave/Wave PLUS/Base PRO









The **Heat pump integration** menu is normally hidden on the Uponor Smatrix Interface (I-147 or I-167).

To activate heat pump integration :

- 1. Go to menu Integration.
- 2. Press and hold on the menu title Integration until HP integration: inactive appears in the list.
- 3. Go to submenu HP integration.
- 4. Press **Active**. The function is activated in the Uponor system, and new settings are available.

See installation and operation manual for the controller for more information.

#### NIBE heat pump/indoor module

	soft in/outputs 5.4 🔪
AUX1	+ Adjust
AUX2	not used
AUX3	not used
AUX4	not used
AUX5	not used
AA3-X7	indication cool mode

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To activate + Adjust (heat pump integration) in the NIBE heat pump/ indoor module:

See heat pump/indoor module manual for more information.

- Go to menu 5.4 soft in/outputs located in the service menu (hold the back button for about 7 seconds while in the main menu).
- 2. Select the same AUX input as the wires are connected to.
- 3. Press the **OK** button.
- 4. Change the setting to + Adjust .
- 5. Press the **OK** button to confirm the change.

	— + adjust 1.9.11 🛛 💧
- degree of effect	0.5
climate system 1	<b>S</b>

The new menu **1.9.11** — **+ Adjust** is now available. In this menu the degree of effect on the supply temperature calculations can be set between **0.0** and **1.0** (default **0.5**) and which NIBE climate systems will be affected. Preferably the climate system where the underfloor heating is connected.

6. If the heat pump is heating/cooling master (decides when to switch between heating and cooling) set **AA3-X7** to **indication cooling mode**.



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1094087 08\_2018\_EN Production: Uponor/MRY Uponor reserves the right to make changes, without prior notification, to the specification of incorporated components in line with its policy of continuous improvement and development.



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