

# CASA Climate CCF

Water safety & Commissioning

15/09/2023

## Before commissioning

The product's dust protection packaging must be removed before commissioning, see further in the product's installation instructions.

The system must be pressure tested before commissioning. Pressure testing up to 900 kPa. In the event of leakage due to defects in the products, Swegon covers the cost of replacement or repair of the product. Any costs or consequent damage that arises prior to pressure testing or due to pressure testing being neglected or occurred too late will not be reimbursed by Swegon.

Remember, pressure testing is a safety precaution to ensure the installation is free from faults and that damage has not occurred during transport, assembly or other handling. Accordingly, the whole installation/circuit and component parts must also be observed during the complete pressure testing.

## Water quality

Swegon recommends water quality according to VDI 2035-2 for both the heating and cooling systems. In order to maintain the oxygen content in the water below the levels (<0.1 mg/l) prescribed in VDI 2035-2, it is recommended to install a vacuum degasser, particularly for cooling systems where it is more challenging to get rid of dissolved gas. It is also important that the pre-charge pressure in the expansion vessel is dimensioned according to EN-12828 for both heating- and cooling systems and that regular checks are made of the pre-charge pressure. The cooling and heating systems must be designed to prevent oxygen from entering the system, this is particularly important to consider when selecting flex hose, pipes and expansion vessels.

When the system is filled with fresh water, it has an oxygen content of approximately 8 mg/l, however, this oxygen is consumed quickly through corrosion processes and within a few days the oxygen in the water should be consumed. Nevertheless, it is important to avoid filling the system with fresh water unnecessarily.

Automatic deaerators are often installed to facilitate filling of the system. It is recommended that the automatic deaerators are turned off once the system has been fully vented to avoid these drawing in air in the system if the pre-pressure in the expansion vessel should drop.

In low-flow systems, it is particularly important for venting to take place via available bleeding screws in all products when commissioning.

When using shear valves, these must be set to open for a period to ensure that all air and dirt disappear from the system.

Swegon reserves the right to make design changes

## Recommended limit values, water

Coil working pressure, max.	1600 kPa *
Coil test pressure, max.	2400 kPa *
<i>* Applies without valves or other extra equipment mounted on the coil</i>	
Max. supply flow temperature:	60 °C
Min supply flow temperature:	<i>Should always be dimensioned so that the system works without condensation</i>
Min. water flow, heating	0.015 l/s
Max. water flow, heating	0.045 l/s
Min. water flow, cooling	0.020 l/s
Max. water flow, cooling	0.045 l/s

## Function

See the product's technical catalogue.

## Commissioning

For commissioning and k-factors, see our application Sweflow (can be downloaded from the App Store and Google Play), as well as the product's technical catalogue.

## Mounting

See the product's installation instructions.

## Inspection

During cleaning, check that the condensation sensor is in contact with fins. If this is not the case, this must be rectified. Also check visible soldered joints in connection with cleaning. If any water drops are detected the unit must be overhauled carefully and any faults needs to be remedied.

## Maintenance

See the product's Quick Guide.