SOLFLEX
Acoustic housing

Installation - Manual

SHC - Acoustic Housing

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Always observe all relevant standards and statutory regulations

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Table of Content

1. Technical data

https://solflex.eu/en/shcschalldaemmgehaeuse18db/

2. Warranty

24 months from delivery.

3. Safety

In the event of improper operation or operation for a purpose other than the intended, there is however a risk of serious or even fatal injury to persons and a risk of damage to the unit and other property.

3.1 Intended use

The unit must only be used as acoustic housing for compatible Heat Pump, Air Conditioning and Refrigeration systems. Any other use is strictly prohibited.

3.2 Safety instructions

All work about the assembly, installation and commissioning of the unit must be carried out by specially trained technicians.

! NOTICE

It is possible to get injured during the mounting because of the metal execution and processing. Please wear gloves.

3.2.1. Risks during unloading and transportation

⚠WARNING

Risk of serious injury from dislodged loads.
Do not stand under suspended loads.

Risks from electric power.

Risk of electric shock from electrostatic charge of housing:
Earth the device.

3.2.2. Risk of damage to property and the environment

! NOTICE

Serious damage to property from dropping loads;
please observe the instructions in section "Delivery of product".
Serious damage to heat exchanger connections, panelling and other mounted components from force impact during moving of unit elements; **always move the unit elements by their base frame.**

Risk of damage to components from heavy impact, e.g. when attempting to dislodge a part with a hammer, etc.: **Components that rest on the foundation must only be moved by shifting.**

3.3. Emergency procedures

3.3.1. Fire fighting

Strictly adhere to all statutory fire safety regulations.
The insulation foam has a fire behaviour according norm.

4. Product delivery

Upon delivery, inspect the product for damage caused during transport and ensure the delivery is complete.
Record any damage or missing parts on the transport documents.
Complaints regarding obvious transport damage or incomplete deliveries cannot be considered if made too late.

On the construction site, protect the unit against dirt, impact and the elements.

The SHC housing will be shipped assembled. It is possible disassemble it on site and put it together again.
Only SHC housings with big dimensions will shipped in parts.

4.1. Unloading / transport to location of installation

This unit is shipped assembled on a pallet. For unloading, lift the unit by the pallet.
Too short forks can damage the acoustic housing.

Risk of serious injury or damage to property from dropping loads.
Observe the safety instructions of the transport equipment and lifting gear.

Do not climb onto the unit.

4.2 Information on the storage of products made from AluZink

Please note the following: If stored improperly, products made of AluZink can be damaged by corrosion, also known as "white rust". In order to minimize the risk of white rust, suitable precautions must be taken during transport and storage. All products made of AluZink should preferably be stored inside, or with a suitable cover outside, in a clean and dry place away from any chemical contamination. To avoid white rust, AluZink should, as far as possible, be stored at constant temperatures above the dew point. Rapid changes in temperature lead to condensation and subsequently to white rust. In addition, the products made of AluZink must always be stored on pallets made of wood or metal in order to avoid direct contact with the floor.

It is recommended not to store products made of AluZink outdoors. If this is unavoidable, however, it is important to observe the following precautionary measures: Set up a scaffolding around the stored material and cover it with a waterproof film, tarpaulin or similar cover. Leave enough space between the cover and the packages or coils to allow air to circulate. Store the parcels at a slight incline so that rainwater can drain away without touching the ground. Check the storage area at regular intervals to avoid getting wet on the material. Note that all products (stored above, in the middle or below) can also get wet due to nighttime condensation and this water cannot evaporate. Keep the period of storage outdoors as short as possible, especially during the summer months, the rusting process is greatly accelerated by the higher temperatures.

5. Installation of unit

NOTICE

At the place of installation, it must be possible to provide impeccable service and maintenance and the necessary air intake of the built-in air-conditioning, refrigeration and heat pump units.

When planning the installation site, the guide lines for minimum distances around the air-conditioning, refrigeration and heat pump manufacturer must be respected.

The **acoustic louvre**, on the suction and exhaust sides has a **depth of 320mm** and the site must enable this to remove to have access to the built-in air conditioning, refrigeration and heat pump equipment.

Important NOTE:

CAUTION

Please always use the required safety work gear during installation. Due to the packaging materials and the production process, personal injury may occur, such as hand injuries.
If the soundproof housing is freely accessible, the necessary measures during assembly should be taken to local conditions to avoid personal injury.

Aluzinc

CAUTION

"The warranty applies to all buildings exposed to normal atmospheric corrosion factors, in other words excluding those subject to permanent spraying with fresh water or salt water; in the case of buildings situated in coastal areas, excluding those exposed to sea spray."

Usage limitations of Aluzinc

Like most other metallic-coated steel sheet, Aluzinc® is not recommended:

- When in contact with copper, lead, moist concrete and in alkalineenvironments.
- In cattle sheds (ammoniac vapours)

For fixings, only use accessories made from:

- Aluzinc®
- Aluminium
- Stainless steels
- Synthetic material (nylon)

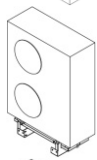
Important NOTE:

1. Due to the production process there can appear a minor possibility that oxidation of certain cutting edges become visible. This oxidation is locally and does not affect the rest of the acoustic cabin. This can be prevented by optionally ordering the acoustic cabin powder painted in a specific RAL colour. Alternatively, the oxidation can be post treated with applying manually Alu-Zinc paint (which is common available) from aesthetic point of view.

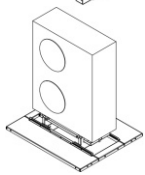
2. The tightening torque of the screw must be 5 to 15 Nm, so that the screw does not cut into the housing and damages the Aluzinc coating.

5.1 SHC with rear intake

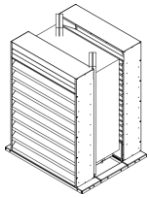
Heat pump



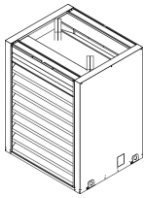
Heat pump supports + silentblocks + condensate drain pan



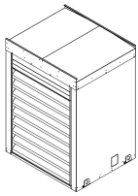
Support brackets



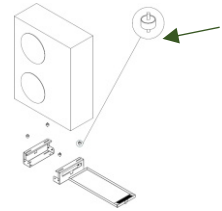
Acoustic grid



Side panels

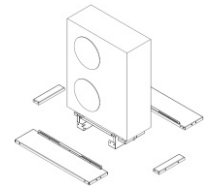


Roof

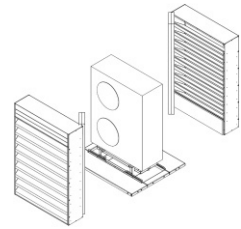


1) Fix heat pump to support feet with silentblocks

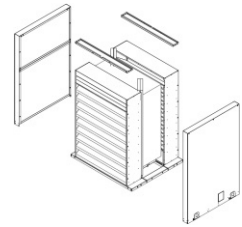
2) Insert drain pan (optional)



3) Fix support brackets to heat pump support feet with 16 M8x20 screws.



4) Fix acoustic grid to support brackets



5) Fix side panels and straps with screws M8x20 to the support brackets and acoustic grid

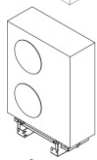
6) Fix front- and back stiffeners with 8 screws M8x20 to the side panels

7) Cut to size and apply the adesive polyester provided (HCSEP100)

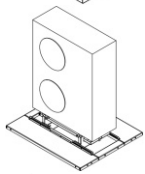
8) Fix roof to the side panels and stiffeners with screws M8x20

5.2 SHC with lateral intake

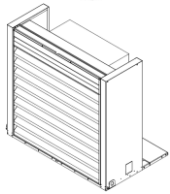
Heat pump



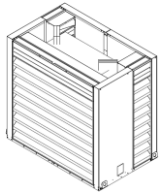
Heat pump supports + silentblocks + condensate drain pan



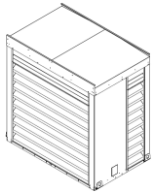
Support brackets



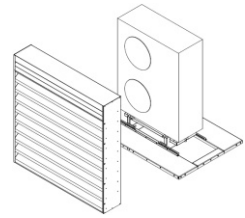
Front acoustic grid and side panels



Side acoustic grid and back panel

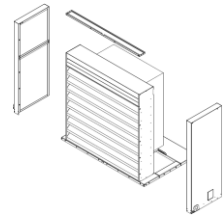


Roof



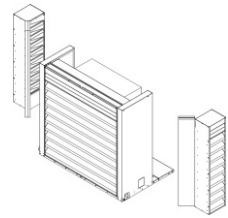
Follow the steps 1-3 as seen on page 9

4) Position the front acoustic grid on the support brackets

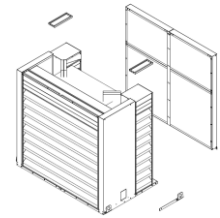


5) Fix side panels and straps with screws M8x20 to the support brackets and acoustic grid

6) Fix front stiffeners with 8 screws M8x20 to the side panels

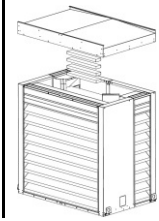


7) Position side acoustic on the support brackets an fix them with screws M8x20 to the side panels



8) Fix the back panel mit screws M8x20 to the support brackets and side acoustic grid

9) Fix side stiffeners with 8 screws M8x20 to the side panels and back panel



10) Fix straps with cover plate below the side acoustic grid to the support brackets

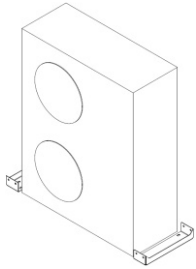
11) Cut to size and apply the adesive polyester provided (HCSEP100)

12) Fix roof to the side panels and stiffeners with screws M8x20

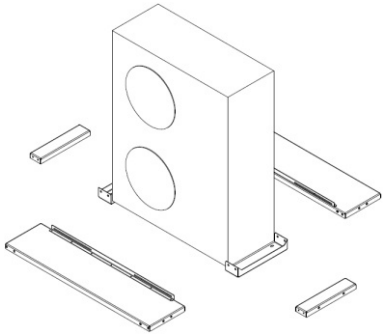
5.3 Installation with HCFIXBEAM

Installation with HCFIXBEAM(VI) is used for already installed heat pumps.

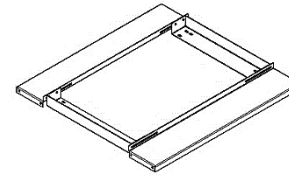
The steps must be executed in the same order as seen on page 9 and page 10. Just step 1 and step 2 are different:



If the heat pump is already in place, it is necessary to use the HCFIXBEAM to fix the cabin to the ground. Place the HCFIXBEAM as shown in the image, taking care to meet the slots of the support brackets of the cabin

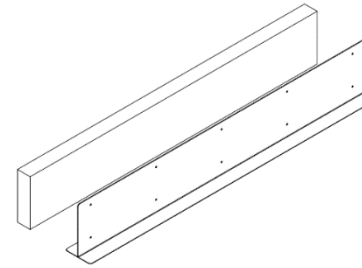


Fix support brackets to heat pump support feet with 8 M8x20 screws



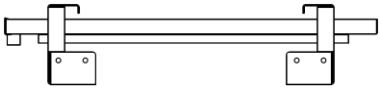
5.4 Installation with SHCSEPPLATE

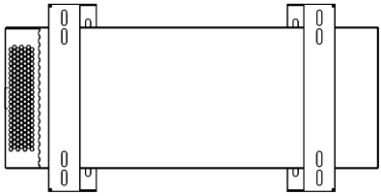
SHCSEPPLATE is used for smaller heat pumps to avoid air circulation in the housing. It is made out of a T-Longsheet with lateral adhesive polyester. Furthermore, it is made to measure and is positioned between outdoor unit top and underside of the housing roof.
If the space between outdoor unit top and underside of the housing roof is more than 100mm, SHCSEPPLATE prevents that the heat pump sucks in the already blown out air.

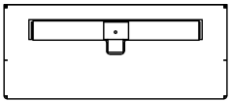


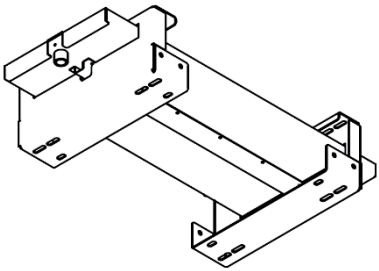
5.5 HCDRAINPAN

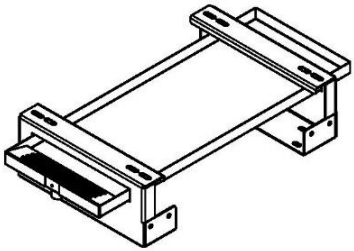
Condensate tray made of aluminum, including temperature-controlled electronic condensate tray heating, leaf retention grid and oil separator.









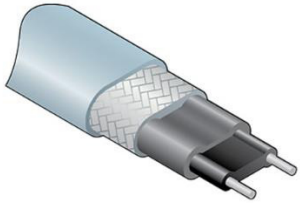


Condensate tray heating 25 FSR2-CT self-regulating 25W at 5° C
25W / 230VAC / minimum 6A

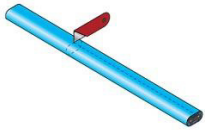
Certification

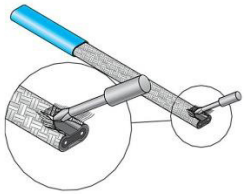
ATEX – Sira 02ATEX3070
IECEx - SIR 11.0121
VDE - 114665

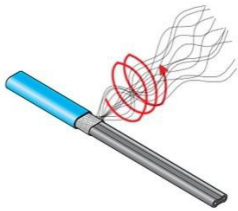
Connection

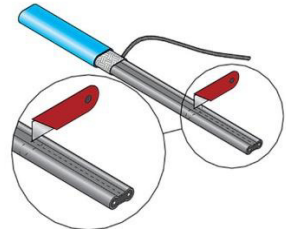


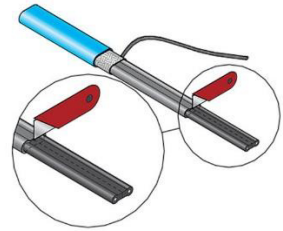
FSR..CT/CF

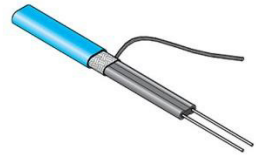


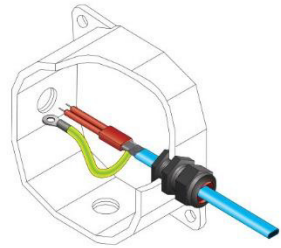




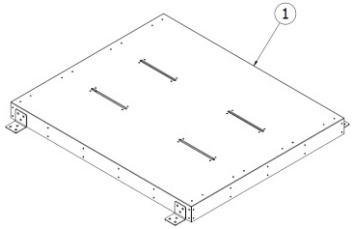




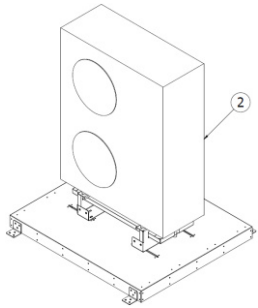




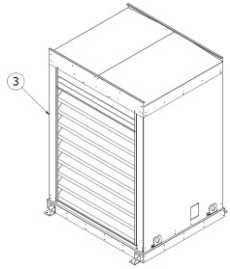
5.6 SHCBOTTOMPLATE



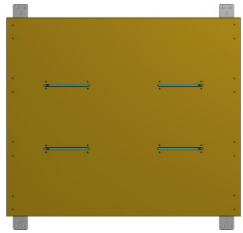
1) Fix base plate with 12 M10-screws to the socket

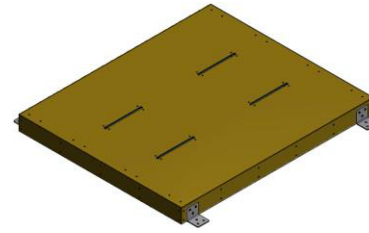


2) Fix heat pump feet to M8-nuts in the slots of the base plate



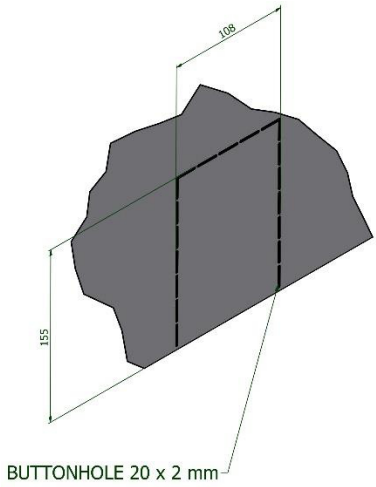
3) Assemble the acoustic housing according to the instructions as seen on page 9 and 10





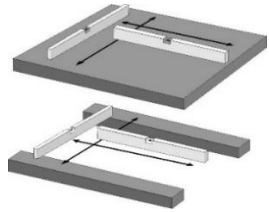
5.7 Connection for refrigerant pipes and power supply

There is a possibility to enter with refrigerant pipes and power supply in the sound insulation housing, both on the left and on the right side, in case the entry is not foreseen through the bottom.



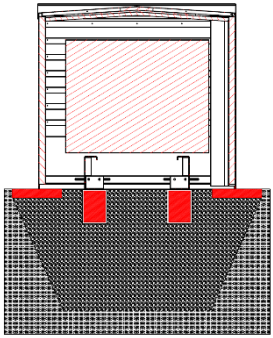
5.8 Foundation

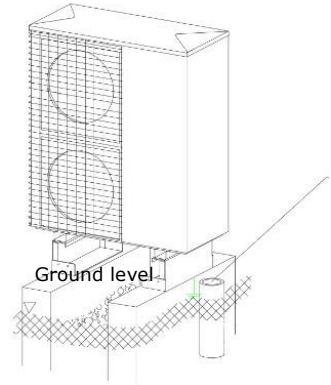
The foundation must meet the relevant static and sound propagation requirements and must feature a proper drain for water. It must be level and smooth. The resonance frequency of the support structure must be distinctly different from the excitation frequency of the rotating machine components (Heat Pump, Air Conditioning and Refrigeration system).



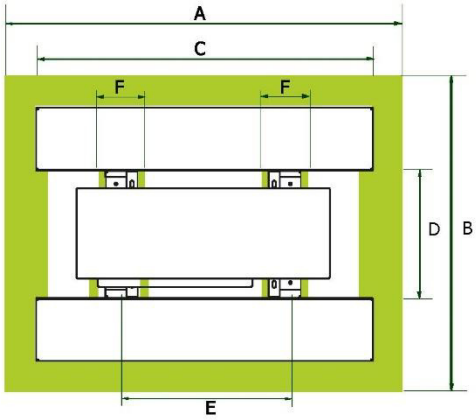
An uneven foundation might cause malfunction or jammed panels. Liability is excluded for damage caused by installation on an uneven surface.

Foundation example:





Dimensions of foundations:



Type	Dimensions of foundation [mm]					
	A	B	C	D	E	F
SHC100NA	1350	1150	1100	450	Distance between the support feet of the HVACR unit	160
SHCY100NA						
SHC200NA						
SHC100NASA	1800	1150	1550	450	Distance between the support feet of the HVACR unit	160
SHCY100NASA						
SHC200NASA						

Type	Dimensions of foundation [mm]					
	A	B	C	D	E	F
SHC100NAVI	1350	1400	1100	700	Distance between the support feet of the HVACR unit	160
SHCY100NAVI						
SHC200NAVI						
SHC100NASAVI	1800	1400	1550	700	Distance between the support feet of the HVACR unit	160
SHCY100NASAVI						
SHC200NASAVI						

Note 1:

In case of a complete foundation (=AxB), a frost-proof drain of the condensate must be provided locally.

Note 2:

Just as with an installation without a soundproof enclosure and if there are no other local regulations that a drain collection should be used as environmental protection, it is possible to drain the condensation water from the heat pump, for example, into a gravel bed, which was carried out professionally for an appropriate water drainage. In addition, a protection against plant growth from below is to ensure.

5.9 Installation of Heat Pump, Air Conditioning and Refrigeration outdoor unit

The correct installation position of the air conditioning, refrigeration or heat pump unit is decisive for the fit and function of the acoustic housing.

6. Maintenance and Service

6.1 General

For maintenance and service work on the refrigeration, air-conditioning or heat pump unit, the necessary panels can be easily removed from the acoustic housing.

Cleaning and maintenance of the acoustic housing

- Remove other dirt with a dampcloth; if necessary, use grease- or oil-dissolving detergents(concentrated neutral detergentwith pH between 8 and 9).
- Treat galvanized parts with preservation spray.
- Regularly lubricate moving parts such as panel locks with alubrication spray.
- Regularly treat seals.
- Repair any damage to the coating, including areas that show signs of corrosion, with repair paint.
- Clean the unit thoroughly to remove all construction dust and other dirt.
- Prior to shipping, each unit is carefully inspected at our factory.

6.2 Silencers

The sound insulation material of the silencers should be checked for dust during major maintenance work and if necessary, cleaned with a vacuum cleaner.

If necessary, the silencers must be checked for free passage, as this is necessary for perfect air circulation and

the function of the installed refrigeration air conditioning or heat pump unit.

6.3 Grounding

Depending on the local regulations and position, we recomment to carry out a grounding or lightning protection.

6.4 Test run

After working on the acoustic housing, the person responsible must ensure that no person is in the acoustic housing before it is put into operation again.

6.5 Removal and disposal

Metal parts and plastic parts are to be recycled, per applicable regulations.

Do you have anymore questions?

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