AEROMAT 100.

Sound absorbing ventilator.
Contents

Important information ..................................................................................................................................................................... 4
Intended use .................................................................................................................................................................................... 4
Safety notices ................................................................................................................................................................................ 4
Installation ................................................................................................................................................................................... 5
Mains supply .................................................................................................................................................................................. 6
Unit Description ........................................................................................................................................................................... 7
Operation ....................................................................................................................................................................................... 8
Maintenance .................................................................................................................................................................................. 10
Cleaning ...................................................................................................................................................................................... 10
Accessories .................................................................................................................................................................................. 12
Technical data ............................................................................................................................................................................ 13
Dimensions .................................................................................................................................................................................. 13
Liability ....................................................................................................................................................................................... 14
Important information

Please read the following instructions carefully before operating the unit for the first time.

Intended use

• The AEROMAT 100 is intended for installation in the exterior windows/walls of permanent structures in accordance with our installation and design documents as well as the specifications of our assembly instructions and is only suitable for the ventilation of enclosed rooms.
• The unit must always be installed by an experienced specialist, in accordance with the installation and planning documents of SIEGENIA.
• Do not use the AEROMAT 100 in environments with corrosive or explosive atmospheres (dust, vapour or gas).
• Use the AEROMAT 100 only with genuine accessories from SIEGENIA.
• Use the AEROMAT 100 only when it is in a technically sound condition. Do not modify the unit’s components in any way.
• Ventilation openings must be kept free and must not be blocked by other equipment, furniture or objects.
• In the event of a fault, only have the AEROMAT 100 repaired by experienced specialists with training and practice in the repair of ventilation units.
• Any use of this product that is not in accordance with its intended use, or any adaptation of or modification to the product and its associated components for which the express consent of SIEGENIA has not been obtained, is strictly prohibited. SIEGENIA accepts no liability whatsoever for any material losses or injury to people caused by failure to comply with this stipulation.

Safety notices

Type A, Type F2 and Type DK

• The unit should not be operated by people (including children) with physical, sensory or mental disabilities, nor by people with insufficient experience or without previous knowledge, unless adequate supervision is provided or detailed instructions on how to use the unit are issued by a responsible person.
• If the network connection cable is damaged, it may only be replaced by SIEGENIA, its customer service department or a qualified electrician.
• Work on a 230-V AC mains power supply may only be performed by a qualified electrician.
• All work on the 230 V AC mains power supply must be carried out in compliance with the current German VDE regulations (e.g. VDE 0100) and any relevant country-specific requirements.
• All-pole safety isolation should be used when fitting the network connection cable on-site.
• Observe the numbering of the connecting cable.
  - Swapping the leads may result in damage to the control electronics.
• Fire hazard and risk of an electrical shock.
• Should a solid object or any liquid get inside the unit, stop operation immediately and disconnect the AEROMAT 100 from the mains power supply:
  - Check whether the AEROMAT 100 has become damaged
  - Have the unit repaired by a specialist, if necessary
Installation

Prerequisites for installation

- The position from which the outdoor air is drawn in must be selected in such way that any nearby emission sources have as little impact as possible on the quality of the air being drawn in.
- Installation options:

Installation sequence

1. Carefully remove AEROMAT 100 from the packaging. We recommend placing the unit on a soft surface (e.g. cardboard or blanket) during installation.
2. Close the fan flap to prevent contamination (e.g. dust) from entering the unit during installation.
3. Install the AEROMAT 100 in its intended installation position and seal it in accordance with the installation directives applicable on site.
4. Check AEROMAT 100 for cleanliness prior to its commissioning. If necessary, thoroughly clean the unit as described in our operating instructions.
Mains supply

The AEROMAT 100 is connected via an external switch (Type DK and Type F2) or directly (Type A) to the 230-V AC mains power supply.

⚠️ **WARNING** Exposed electrical components. Risk of fatal injury from electric shock or fire.

 › Work on a 230-V AC mains power supply may only be performed by a qualified electrician.

 › All work on the 230-V AC mains power supply must be carried out in compliance with the current German VDE regulations (e.g. VDE 0100) and any relevant country-specific requirements.

 › Switch off or unscrew the fuses.

---

Important: If the AEROMAT 100 is connected directly to the 230-V AC mains power supply, a mains isolator must be installed by the customer.

**Connection Type A**

- PE
- N
- L1

**Connection Type DK**

- PE
- N
- L1

**Connection Type F2**

- PE
- N
- L1

---

PE: blue
N: brown
L1: black
S1: blue
S2: brown
S3: black
S4: red
**Unit Description**

Depending on its version, the AEROMAT 100 is delivered with a left- or right-hand operating lever. On the respective opposite side, there is a small screw for the pressure setting of the fan flap.

<table>
<thead>
<tr>
<th>Use / Unit properties</th>
<th>Type D</th>
<th>Type A</th>
<th>Type DK</th>
<th>Type F2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pressure setting of the fan flap (Pos. 1)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fan flap (Pos. 2)</strong></td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The airflow is regulated using the operating lever.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electric fan flap (Pos. 2)</strong></td>
<td>-</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The airflow is regulated via an external switch.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(for possible switch types, see Chapter &quot;Accessories&quot;).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Press switch (Pos. 3)</strong></td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The blower can be switched between aeration and de-aeration by pressing the press switch.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Indicator lamp (Pos. 4)</strong></td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>The indicator lamp is on when the unit is in operation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating lever (Pos. 5)</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The airflow can be continuously set using the operating lever.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pressure differential operation</strong></td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The room is ventilated as the indoor and outdoor air pressures are equalised.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normally, air flows from outside into the room. Depending on the weather conditions, the wind pressure increases the air flow into the room.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Blower operation</strong></td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Ventilation is done via an axial blower with continuous speed adjustment. The blower can be set to aeration or de-aeration.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Volume flow limiter</strong> (optional accessories)</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
</tr>
<tr>
<td>For limiting the air flow at changing and high differential pressure.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rod operating device</strong> (optional accessory)</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>We recommend to use the rod operating device starting at an installation height of 1.80 m or higher (see chapter &quot;Rod operating device&quot; and &quot;Accessories&quot;). Do not use any inappropriate auxiliary materials to operate the unit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sound absorption against external noise</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Weather grille against direct snow- and rainfall</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Aluminium casing anodised or powder-coated, plastic face plates</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Thermal separation (low heat transfer via the casing)</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Operation

AEROMAT 100 Type D

1. Open the fan flap
2. Close the fan flap

AEROMAT 100 Type A

The blower switches on automatically as soon as the fan flap is opened.
The speed of the blower increases automatically when the fan flap is opened further.
1. Open the fan flap
2. Close the fan flap
3. De-aerate
4. Aerate
AEROMAT 100 Type DK

1. Open the fan flap (operating level opens automatically)
2. Close the fan flap (operating level closes automatically)

AEROMAT 100 Type F2

Push the buttons "Open" and "Close" until the operating lever has reached the desired position.

Attention! Release the push buttons "Open" and "Close" after 5 seconds at the latest (as soon as the operating lever has reached a final position).

1. Open the fan flap (operating level opens automatically)
2. Close the fan flap (operating level closes automatically)
3. De-aerate
4. Aerate
5. Switch on blower
6. Switch off blower
Maintenance

If you notice that the ventilator does not close properly or is difficult to open because the pressing force of the fan flap is not correct, you can adjust the pressing force by means of a small screw on the front panel of the unit.

- Slightly turn the screw into the desired direction using an appropriate screw driver.
  (+ = increase the pressing force; - = decrease the pressing force)

Besides cleaning it, the AEROMAT 100 does not need any further maintenance. If there should be any disturbances, please contact SIEGENIA.

Cleaning

⚠️ WARNING Cleaning the unit!

- Type A, Type F2 und Type DK: Switch off all poles of the feeder.
- Only clean the AEROMAT 100 as to where the unit is accessible safely. Observe the safety regulations for ladders, steps, works in particular heights etc.
- If required, clean the outer parts of the AEROMAT 100's casing using a suitable cloth, which has been moistened with a mild soap sud or washing-up liquid.
- Never use cleaning agents that are aggressive or contain solvents, as these may damage the surface of the unit.
- When cleaning the unit, avoid liquid from entering into the casing.
- Never clean the unit with a high-pressure cleaner or steam-jet cleaner.
Cleaning the front plate and sealing plate

1. Close the fan flap.
2. Lift and remove lid using a flathead screwdriver
3. Lift front panel using a flathead screwdriver
4. Pull out front panel and sealing plate from behind and pull off of the operating lever
5. Lift-off sealing plate and front panel to clean
6. Remove foamed lining, if necessary
7. Make sure that the operating rod (\(a\)) does not slip out of the sealing plate’s profile.
8. After cleaning, reassemble in the reverse order
Accessories

Please indicate the desired lengths for all accessory items (see order form AEROMAT 100).

<table>
<thead>
<tr>
<th>Name</th>
<th>Material no.</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flush-mount switch AF1, single, white</td>
<td>128032</td>
<td>Type DK</td>
</tr>
<tr>
<td>Surface-mount case for switch AF1, white</td>
<td>149027</td>
<td></td>
</tr>
<tr>
<td>Flush-mounted switch F2, white</td>
<td>148877</td>
<td>Type F2</td>
</tr>
<tr>
<td>Surface-mounted casing F2, white</td>
<td>148907</td>
<td></td>
</tr>
<tr>
<td>Rod operating device, white (RAL 9016)</td>
<td>aer.gestaenge</td>
<td>Type D and Type A</td>
</tr>
<tr>
<td>Rod operating device, silver (EV 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium profile 20 x 20 x 2 mm, white (RAL 9016)</td>
<td>aer.winkel 20x20x2</td>
<td>all types</td>
</tr>
<tr>
<td>Aluminium profile 20 x 20 x 2 mm, silver (EV 1)</td>
<td>aer.winkel 20x20x2</td>
<td>all types</td>
</tr>
<tr>
<td>Stop profile, white (RAL 9016)</td>
<td>aer.anschlagprofil</td>
<td>all types</td>
</tr>
<tr>
<td>Stop profile, silver (EV 1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rod operating device (optional)

The ventilator is operated using a sliding button (a) on the rod. You can slide the button up or down manually. The sliding button’s “open” and “close” positions (or intermediate positions) correspond to the position of the operating lever on the unit.

The rod is mounted on the same door or window element in which the ventilator is mounted. If the ventilator is mounted e.g. in a moveable window sash, it is essential to also attach the rod to the same sash profile.

Assemble the rod in three steps

**Note**: Depending on the assembly situation, the pin (b) and the clip (c) must be shortened.

1. Insert pin
   - Open the fan flap of the AEROMAT 100, thus moving the operating lever in the upper position. Insert the provided pin (b) in the intended bore hole in the operating lever of the AEROMAT 100.

2. Adjust rod
   - The sliding button (a) of the rod must be in the upper position (“Open”).
   - Insert the front groove of the clip (c) into the pin (b) that is fixed above the AEROMAT 100. Push the rod against the existing profile and hold the rod with one hand.
   - Now move the sliding button (a) from “Open” to “Close” and adjust the rod in such a way that the fan flap closes and opens completely.

3. Secure the rod
   - Directly screw the rod with wooden or self-tapping countersunk screws (provided on-site) into the existing screw holes in the adjusted position. The screw holes have the following dimensions:
     - \( \varnothing \text{ screw hole} = 3.7 \text{ mm} \)
     - \( \varnothing \text{ counterbore} = 7.2 \text{ mm} \)
Technical data

<table>
<thead>
<tr>
<th>Specification for a AEROMAT 100</th>
<th>Type D / Type DK</th>
<th>Type A / Type F2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilator length (in mm increments)</td>
<td>508 - 3,000 mm</td>
<td>600 - 3,000 mm</td>
</tr>
<tr>
<td>Sound absorption ($R_{w1.9}$)</td>
<td>42 dB</td>
<td>39 dB</td>
</tr>
<tr>
<td>Sound absorption in accordance with DIN EN ISO 20140-10 ($D_{eq}$)</td>
<td>49 dB</td>
<td>46 dB</td>
</tr>
<tr>
<td>Air throughput (pressure differential)</td>
<td>approx. 20 m³/h</td>
<td>approx. 30 m³/h</td>
</tr>
<tr>
<td>(measured at 10 Pa pressure differential, 1,200 mm ventilator length and with weather grille 911 HW/HS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air throughput (per blower)</td>
<td>-</td>
<td>25 m³/h</td>
</tr>
<tr>
<td>Electrical connection</td>
<td>230 V~ max. 0.01 A [Type DK only]</td>
<td>230 V~ max. 0.09 A</td>
</tr>
<tr>
<td>Protection class I</td>
<td>✅ [Type DK only]</td>
<td>✅</td>
</tr>
<tr>
<td>Power consumption</td>
<td>-</td>
<td>17 W</td>
</tr>
<tr>
<td>U-value (calculated in accordance with ISO 6946)</td>
<td>1.68 W/m²K</td>
<td>1.68 W/m²K</td>
</tr>
<tr>
<td>Cable outlet on the operating side of the ventilator, unit cable approx. 1.5 m</td>
<td>-</td>
<td>✅</td>
</tr>
<tr>
<td>Surface EV1 silver or RAL 9016 white coated (RAL special colours available on request)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimensions

*Stop profile (accessory for glazing rebate fitting)
Liability

Intended use

Any use of this product that is not in accordance with its intended use, or any adaptation of or modification to the product and its associated components for which our express consent has not been obtained, is strictly prohibited. We accept no liability whatsoever for any material losses or injury to people caused by failure to comply with this stipulation.

Product liability

Our products are guaranteed – subject to correct installation and proper use – for a period of one year from the date of receipt by a company (according to our general terms and conditions) or as otherwise agreed, and for a period of two years for end consumers, in accordance with statutory provisions. As part of our ongoing improvements, we reserve the right to replace individual components or entire products. Consequential losses resulting from defects are excluded from the warranty within the limits of the law. The warranty shall become void if modifications that are unauthorized by us or have not been described in this documentation are performed on the product and/or individual components, or if the product and/or individual components is/are dismantled or partly dismantled, and the defect is due to the changes made.

Exclusion of liability

The product and its components are subject to stringent quality controls. As a result, they function reliably and safely when used correctly. Our liability for consequential losses and/or claims for damages is excluded, except in the case of wilful misconduct or gross negligence, or where we are responsible for injury to life, limb or health. Strict liability under the German Product Liability Act (Produkthaftungsgesetz) remains unaffected. Liability for the culpable violation of significant contractual obligations also remains unaffected; liability in this case is limited to losses that are specific to the contract and that could have been foreseen. The above regulations do not imply a change in the burden of proof to the detriment of the consumer.