



INVENTER

Installation instructions

Aviant



Extractor Fan



www.inventer.eu

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Disclaimer

This documentation represents a translation of the original german installation instructions. After completion of installation it must be passed on to the user.

The contents of this documentation have been checked for conformity with the hardware and software described. Nevertheless, deviations cannot be excluded, so that no guarantee can be given for complete conformity.

This documentation describes the functionality of the standard scope. For reasons of clarity, the documentation does not purport to cover all details on all types of the product and cannot cover every conceivable scenario for installation and assembly. The illustrations in this document may differ slightly from the design of the product that you have purchased. The same functionality is ensured despite any design deviations.

This documentation is updated regularly. Necessary corrections and appropriate supplements are always included in subsequent editions. You can also find the latest version at www.inventer.eu/downloads.

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1 User and Safety instructions

Thank you for purchasing this high quality product from inVENTer!

This section provides an overview of the basic safety precautions for safe and proper operation of your ventilation system.

1.1 User information

Safety and warning instructions

The safety and warning instructions in these installation instructions have a uniform structure and are marked with a symbol on the left side of the instruction. A signal word in front of the text also indicates the hazard level. If several hazard levels exist, the highest level safety instruction is always used. The safety and warning instructions contain the following information:



SIGNAL WORD

Type and origin of the hazard.

Possible consequences of the danger!

- Measures to avoid hazard.
-

The signal word indicates the severity of the potential hazard unless the preventive measures are taken:



DANGER means: Imminent danger of serious injury or death.



WARNING means: Possible danger of serious injury or death.



CAUTION means: Direct danger or minor/significant injury.



NOTICE means: Direct or possible risk of property damage due to an adverse event/state.

Other symbols used in this documentation



A **TIP** symbol indicates practical and useful tips for handling your exhaust fan.



Before each step, any additional tools and materials required for the activity are listed.



Action required: This prompts the user to perform a specific action.



Check results: Requires user to check results of the action performed.

All graphics represent the interior wall.

1.2 Safety instructions



The installation instructions are part of your ventilation device and must be available at all times (see www.inventer.eu/downloads). When handing the system to a third party, the information regarding access to the installation instructions must be handed over also. Before performing any work on the device/system, read the installation instructions carefully and observe all notices that refer to the installation process in this section. Also note the safety instructions that precede the described handling instructions.

Non-observance of safety instructions could result in injury and/or property damage.

Intended use

The Aviant extractor fan (hereinafter referred to as "Aviant") is used to ventilate rooms with external windows, taking into account the technical data and applications described in this manual, and only in conjunction with the components recommended by inVENTer GmbH and which are named in this documentation.

Modifications or conversions to the unit are not permitted. The Aviant complies with the technical safety requirements and standards of electrical devices for domestic use. It may only be set up and operated in conjunction with this documentation.

Proper transport, storage and installation are prerequisites for the faultless and safe operation of the appliance.

- Always observe the relevant standards, regulations and guidelines when installing the equipment/system.
- The Aviant is designed for permanent installation with permanent wiring.
- **DANGER: The equipment may only be installed by qualified personnel.**
 - Comply with the specifications of protection class II when laying the mains cable.
 - Wire all the units in a ventilation system to the the same circuit breaker.
 - Only lay and connect cables when they are disconnected from the power supply!
 - It must be ensured that the mains power supply (voltage, frequency) corresponds to the specifications on the type plate.
 - Before working on electrical installations, disconnect all relevant devices from the power supply.
 - Before drilling, check whether there are any cables in the drilling area.
- **DANGER:** Observe the installation regulations according to VDE 0100 when connecting in damp rooms.
 - Install the Aviant solely outside of protection area 0. (📖 Chapter 3.1, Page 8).
 - Do not use the Aviant in places where direct contact with splashing water is possible over a long period of time and/or where the unit is exposed to direct jets of water.
- **WARNING:** For the joint operation of a ventilation device with fireplaces, safety measures must be taken to prevent the development of negative pressure in the building. The decision as to which measures should be implemented is made by the responsible chimney sweep and/or building planner.
- **NOTICE:** Using too small a wire cross-section leads to too high of a voltage drop and/or contacting is not guaranteed!
- **NOTICE:** Ensure sufficient contacting of the cables when connecting the Aviant.
- **NOTICE:** Lay cables without a plaster-resistant cable sheath in the empty conduit to avoid short circuits and/or cable fires.
- **NOTICE:** The device has plastic surfaces that are sensitive to scratches. Do not touch components with oily and/or dirty hands. Avoid contact with sharp or pointed objects.
- Ensure enough air supply in the room.
- The extractor fan may only be put into operation after completion of the construction work.
- Exterior closures must be constructed in such a way that they are resistant to driving rain and excessive snow.
- Install wall sleeves with a slope of 1 – 2° to the outside and, after installation, bring the wall structure back up to the wall sleeve. Wall sleeves and required material are to be provided by the customer.
- The wall sleeve for holding the Aviant must have a minimum length of 180 mm.

If your device has a defect, contact your factory representative or our technical service.


Improper use

Use contrary to the intended purpose leads to the exclusion of any liability claims. Any use that is not mentioned in the chapter intended use is considered improper use.

In particular, do not install/operate the device in areas where the following may occur:

- Environment containing strong oils or lubricants.
- Flammable, aggressive and corrosive gases, liquids or vapours.
- Ambient temperatures outside the range of 5 – 50 °C
- Possible obstacles preventing access or the removal of the fan.

Qualified personnel

Assembly and electrical connection of the unit may only be carried out by qualified personnel (see also icon .

Qualified personnel within the meaning of the safety information in this documentation are persons who are authorised to assemble, commission and mark devices, systems and circuits in accordance with the standards of safety technology.

Conformity

The Aviant meets the requirements for mechanical safety (DIN EN 60335-2-80).

The Aviant is equipped with a Bluetooth radio system **Bluetooth LE: -12 dBm EIRP (63µW), nominal 2450 MHz**. inVENTer GmbH hereby declares that the Bluetooth radio system installed in the device complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: <https://www.inventer.eu/downloads/>

2 System overview

The Aviant is an innovative extractor fan with a contemporary design. It improves the basic ventilation in your rooms and enables continuous ventilation to reduce humidity and odours in wet rooms (WC/bath/shower room/laundryroom).

The Aviant can be used in combination with the aV100 wall mounting set, or installed in an alternative wall mounting sleeve with diameter DN98-DN100 or DN118-DN125 and minimum length 180 mm. The use of the aV100 wall mounting set is recommended. Installation is possible in ceilings and external walls. The Aviant is connected directly to the 230 V mains.

To ensure that the Aviant does not interfere with other ventilation devices and that its function is not interfered with by other ventilation processes, it must always be installed in its own wall sleeve.

There must be no obstacles or other objects in this sleeve that could interfere with the airflow. In order to avoid any condensation that may occur in wall sleeves (in winter), they must be insulated at the points where they run through unheated areas, such as cold attics.

The Aviant is controlled and set up using the „inVENTer Mobile“ application software or on the control panel of the extractor fan.

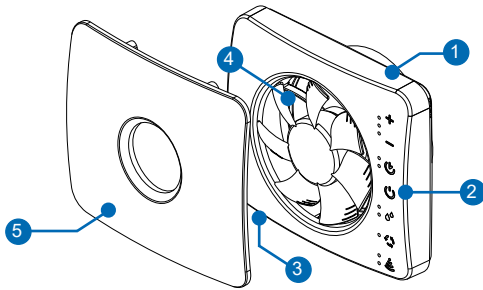


Figure 1: Aviant extractor fan with cover

- | | |
|-----------------|--------------------------|
| 1 Fan Housing | 4 Fan |
| 2 Control panel | 5 Inner cover (magnetic) |
| 3 ON/OFF switch | |

2.1 Function

- Humidity sensor (Automatic humidity monitoring):**
 Increase of the air flow volume to dissipate peak humidity loads. The intensity of the air flow volume can be adjusted via the app or on the control panel.
- Light sensor:**
 Increase of the air flow volume when the lighting conditions in the room change. The intensity of the air flow volume can be adjusted via the app or on the control panel.
- Air quality sensor:**
 Increase of the air flow volume when the air quality in the interior deteriorates. The intensity corresponds to the selected maximum when activating the humidity sensor.

- Run-on Function:**
 After the switch-off impulse (by humidity sensor, light sensor or external switch), the fan continues to run until the end of the run-on time and then switches off automatically.
- Switch-on delay:**
 Activation takes place exclusively via an external switching contact as a pulse generator. After the switch-on impulse, the fan does not start immediately, but after the switch-on delay has elapsed. Increase of the air flow volume during switching. The intensity of the air flow volume can be set via the app or on the control panel.
- Continuous Ventilation:**
 Continuous/permanent ventilation. The intensity of the air flow volume can be set via the app or on the control panel.

- Automatic Basic Ventilation Cycles:**
 Once a day, the ventilation device runs automatically for 60 minutes if it has not been activated in the meantime. The function is not active if the ventilation device is set in continuous ventilation (permanent operation).
 Note: The sensors are switched with priority. If the Aviant was activated in the meantime by means of sensors, the basic ventilation cycle is shifted back accordingly. The intensity of the air flow volume can be set via the app or on the control panel.

The following factory settings are active when the fan is first started up:

- Automatic Basic Ventilation Cycles
- Humidity monitoring: approx. 90 m³/h
- Run-on Function: 15 Minuten, ca. 72 m³/h
- Switch-on delay: 2 Minutes

3 Preparing for installation

3.1 Mounting Conditions

Electrical protection areas according to VDE 0100



DANGER

Infiltration of water into the Aviant extractor fan or its power source.

Electric shock and overheating through short circuit (230V, 50 Hz)!

- Install the Aviant outside the protection area 0.
- Only install the Aviant in areas of protection zone 1 where direct contact with splash water is **not** possible over a long period of time and/or the unit is **not exposed to direct jets of water**.
- Fit lightswitch/ switch/ push-button outside the protected area 0 to 2.

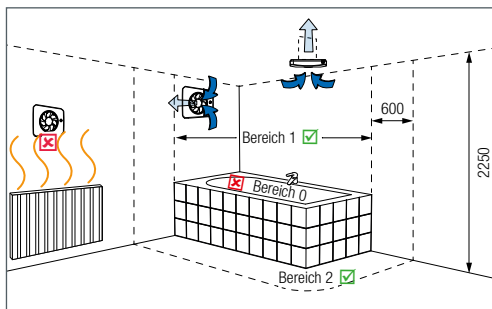


Figure 2: Overview of electrical safe areas in the bathroom

Positioning of the Aviant

- Install the Aviant extractor fan in the room's air flow to ensure optimum moisture removal and reliable readings from the humidity sensor.

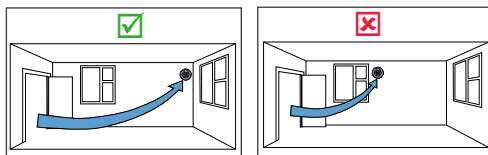


Figure 3: Proper/improper positioning

- Do not place the ventilation device over heating units, room thermostats and/or delicate furniture.
- Ensure there is sufficient air supply in the room, for example by a large gap under the door.

Cable cross-sections

- Supply line, AC 230 V, 50 Hz
- Capacity of connection terminals on the exhaust air unit: max. 1,5 mm²

3.2 Dimensions

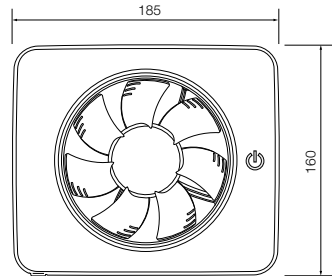
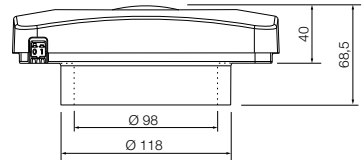
i Keep a minimum distance of 250 mm from components at the front and all around.

- Installation is possible in ceilings and external walls. The Aviant extractor fan is inserted into a wall sleeve with DN100 (e.g. aV100 wall mounting set) or DN 118 ... 125. This must be provided by the customer.

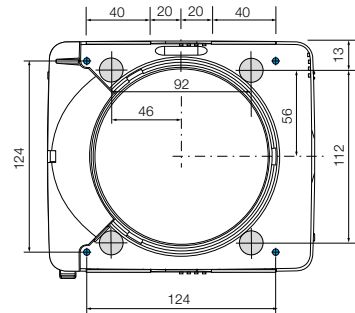
Description	Depth [mm]	Width [mm]	Height [mm]
Wall opening	Wall thickness	Ø 108 ... 133	
Aviant	68,5	185	160
Wall mounting sleeve ¹⁾	Wall thickness, [> 180 mm]	Ø 98 ... 125	

¹⁾ Wall mounting sleeves are available in the aV100 wall mounting set, including weather protection cover, from inVENTer GmbH

3.3 Dimensional drawings



Drilling pattern



4 Electrical connection

The Aviant extractor fan is connected directly to the AC 230 V mains. The fan is double insulated and must not be grounded.

The fan is equipped with an all-pole disconnecting switch.

The fan operates sensor-controlled in every connection case. If set, a switch-on delay is active.

Coupling with an external pulse generator (switch contact or push-button) is possible.

Coupling to an external switching element enables, in addition to sensor control, manual activation of the run-on function and/or the switch-on delay, if set up via app.

An external pulse generator (switched phase) always has priority over switching by the sensors integrated in the unit.

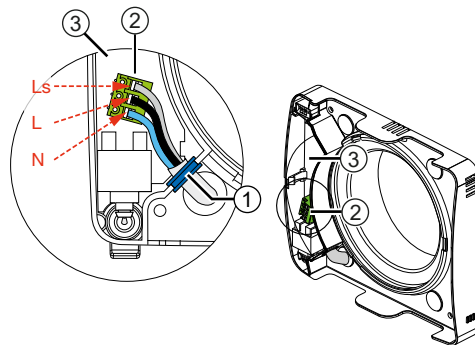


NOTICE: Laying the mains connection cable over the cover of the circuit board will damage the circuit board and impair the function of the Aviant

- Do not lay the mains connection cable over the circuit board.

4.1 Mains connection terminal

Terminal assignment



- Cable bushing power supply cable (sleeve)
- Connection terminal Mains connection cable, 230 V AC, 3-pole
- Circuit board

Terminal	Labeling	Meaning
N	N	Neutral conductor
L	L	Phase conductor
LS	SL	Phase switch

- Circuit board

4.2 Wiring Diagrams

The connection of the extractor fan depends on the desired functions.

Make sure that you connect the extractor fan correctly. Observe the following:

- The run-on function, if set, is also activated when the fan is sensor activated.
- The switch-on delay can only be activated through an external switch

1 Sensor controlled only:

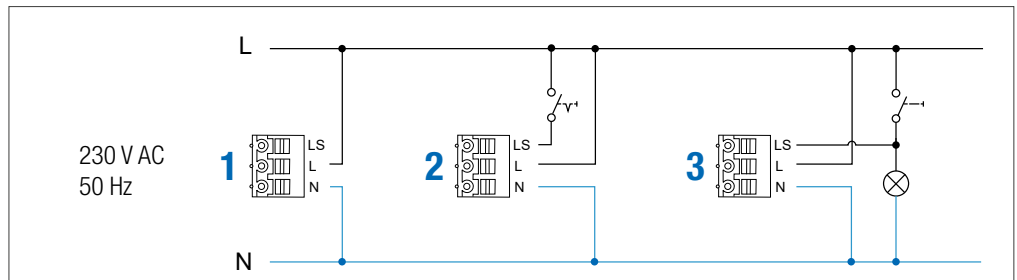
- Increase fan power when activated by integrated sensors (humidity, light, odour sensor).
 - Run-on function, if set.
- Connection, see connection diagram 1:
 - Continuous to phase (L) and neutral (N).

2 Sensor controlled, additional external switching element:

- Increase fan power when activated by integrated sensors (humidity, light, odour sensor).
 - Run-on function, if set.
- Activate run-on function and/or the switch-on delay when the external switching element is actuated.
- Connection, see connection diagram 2.
 - Continuous to phase (L) and neutral conductor (N).
 - Connect the switched phase (SL) to the push-button.

3 Sensor controlled, additional external switching element coupled to room lighting:

- Increase fan power when activated by integrated sensors (humidity, light, odour sensor).
 - Run-on function, if set
- The room lighting activates the switch-on delay and/or the run-on time (if set) (coupling of both functions to the room lighting)
 - Connection, see connection diagram 3:
 - Continuous to phase (L) and neutral conductor (N).
 - Couple switched phase (SL) with room lighting.



5 Installation



DANGER: Exposed electrical components.

Electric shock and injury due to live components (230 V, 50 Hz)!

- Connection only by qualified personnel.
- Observe the safety rules for avoiding electrical accidents before and during installation.



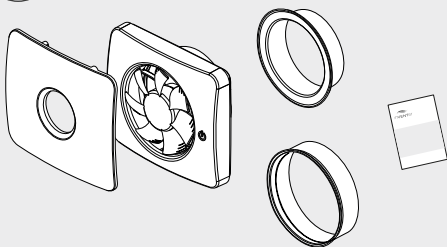
DANGER: Water ingress into the extractor fan or its components/power source.

Electric shock and overheating through short circuit (230V, 50 Hz)!

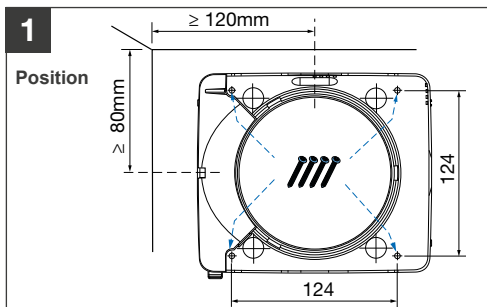
- Mount Aviant extractor fan outside the protection area 0 according to VDE 0100.
- Only install the Aviant in areas of protection zone 1 where direct contact with splash water is not possible over a longer period of time and/or the unit is **not exposed to direct jets of water**.
- Fit light switch/switch/button outside protection zone 0 to 2.

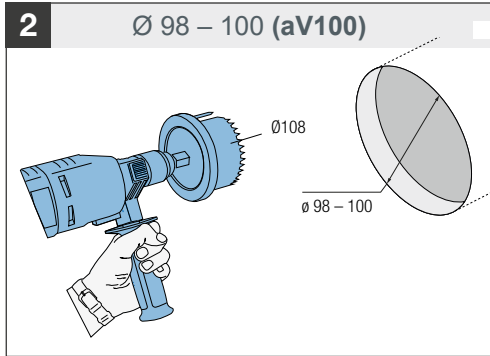


Check Scope of Supply

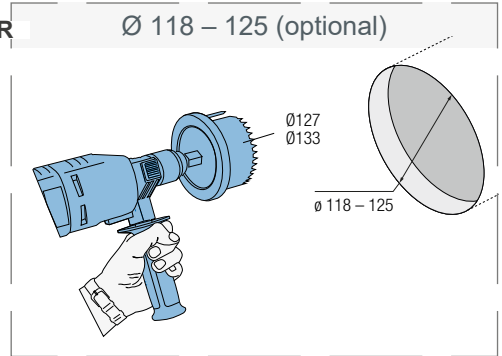


Create wall opening





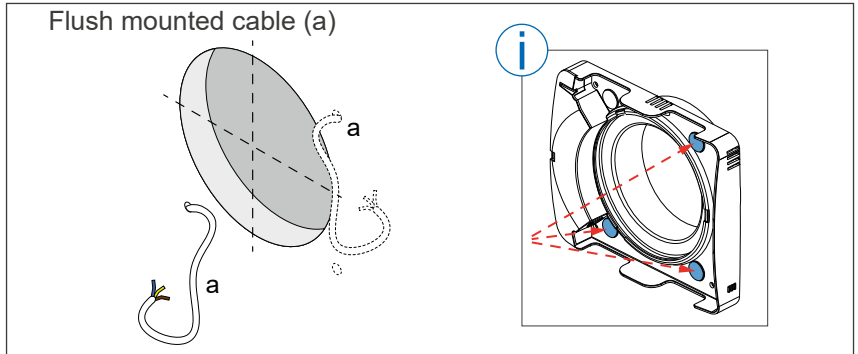
aV100 wall mounting set



Route cables

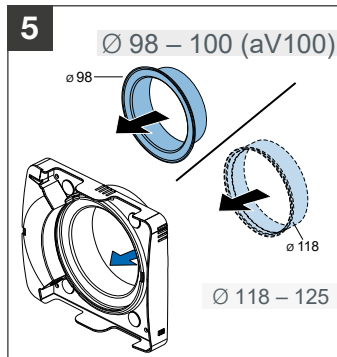
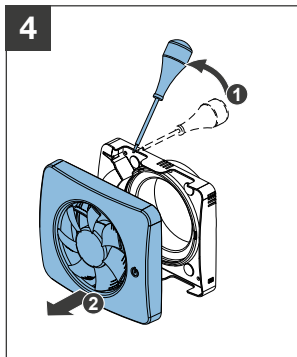
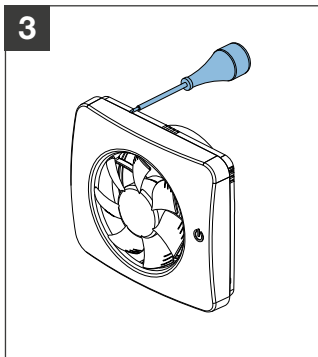


230 V AC

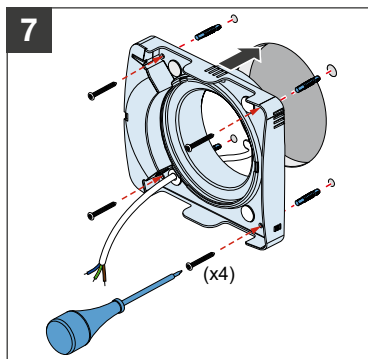
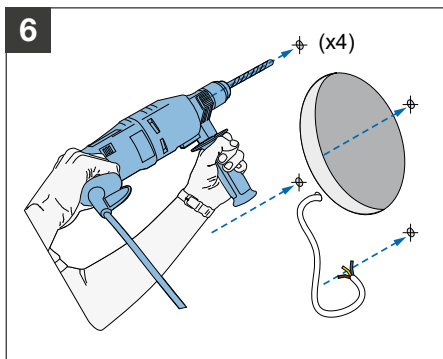


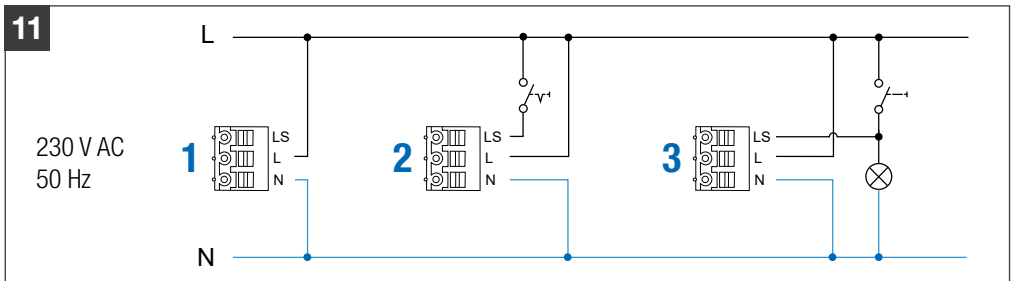
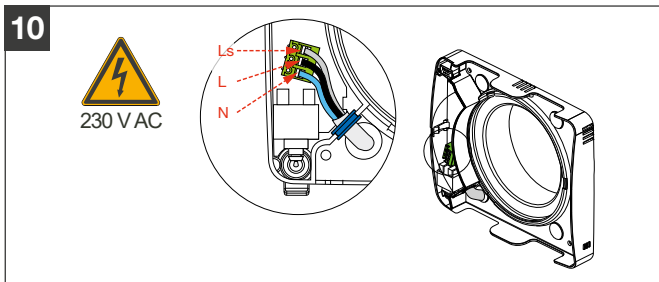
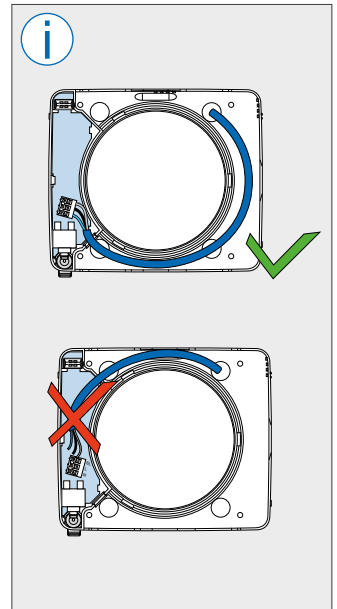
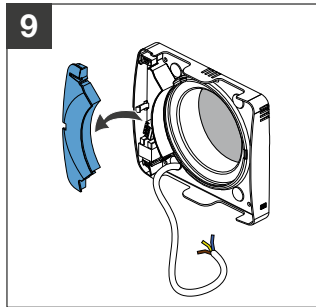
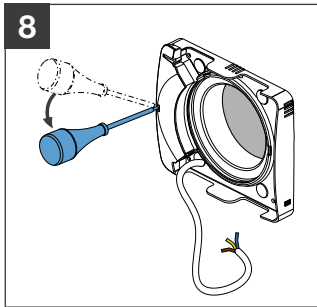
INSTALLATION

Prepare the extractor fan for connection

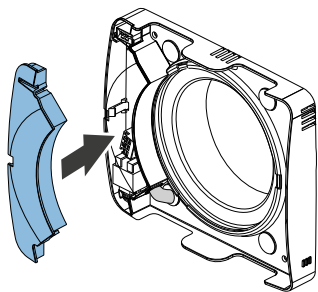


Inserting the extractor fan and electrical connection

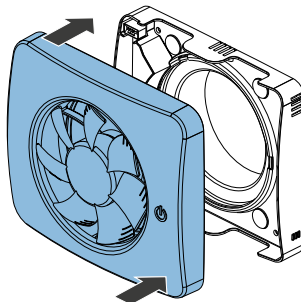




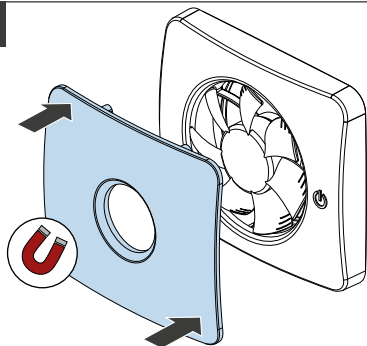
12



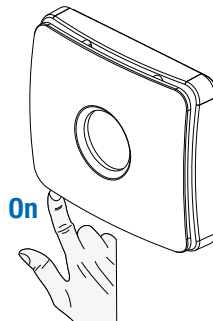
13



14



15



6 Quick Guide: Quick Start Instructions

The setting can be made directly on the control panel of the fan.



Functions are displayed in different colours:

No indicator light

Continuous ventilation / Off

Blue indicator light

Permanent: Activated by humidity sensor.
Flashing: Run-on function activated. High humidity levels detected.

Green indicator light

Activated by air quality sensor.

Violet indicator light

Automatic basic ventilation cycles (1 x daily without use)

Yellow or Orange indicator light

Permanent: Run-on function active
Flashing: Switch-on delay active, the flashing becomes faster towards the end of the switch-on delay.

Red indicator light

Connection error. Touch the Function icon or start the “inVENTer mobile” application again.

To access the programmable functions, first press the Function icon.

All function icons light up.



Run-on Switch-on delay



Humidity sensor



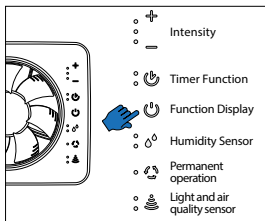
Continuous ventilation



Light and air quality sensor

To activate the desired function, press one of the four icons. Then follow the instructions on the right-hand side.

The function selection is ended by pressing the Function symbol twice.



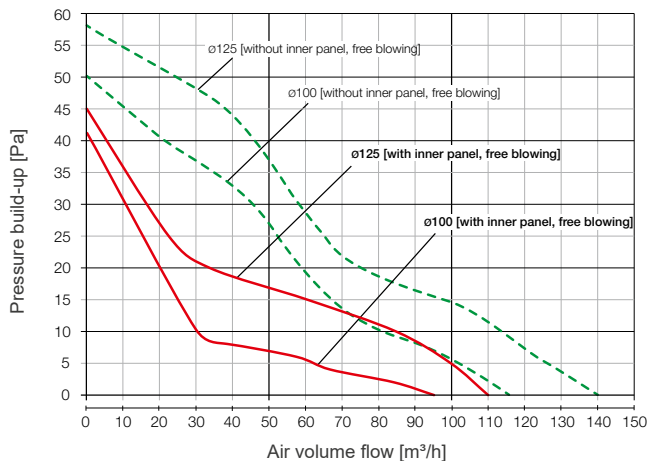
Download

Run-on and Switch-on delay		
Run-on: Repeated button press 15 min 30 min	Activate/deactivate switch-on delay: Press and hold the button for 2 seconds. Display flashes 3 times.	Increase/reduce air flow volume: Press +/- button until value is reached. + 0 -
Humidity Sensor Sensor sensitivity display: High Medium Low Inactive	Change sensor sensitivity: Hold button for 2 sec. Press and hold button until sensor sensitivity is reached (see column on the left)	Increase/reduce air flow during humidity sensor controlled periods: Press +/- button until value is reached + 0 -
Continuous ventilation Activate: Press until the indicator lights up.	Deactivate: Press until the indicator lights up.	Increase/reduce air flow volume: Press +/- button until value is reached. + 0 -
Light and Air quality sensor Sensor display: Light sensor Air quality sensor Both active Both inactive	Enable/Disable: Press button repeatedly until the corresponding indicator lights up (see column on the left)	Air volume flow: Light sensor = Time lapse Air quality sensor = Humidity sensor To change the air flow rate for one of the sensors, select the corresponding function (or) and follow the instructions for changing the air flow rate described above.
Reset (Factory settings)	1. Press the button: Activate control panel 	2. Press the button: Press repeatedly and hold for 5 seconds.

7 Technical Data

Feature	Value	Feature	Value
Protection class	II	Extract air flow volume [m ³ /h] (with inner cover, free blowing)	Ø 100: 95
			Ø 125: 110
Protection type	IP44	Max. pressure build-up [Pa] (with inner cover, free blowing)	Ø 100: 41
			Ø 125: 45
Input voltage [V AC, Hz]	100 – 240, 50 – 60	Sound emission (assessed) [dB(A)]	17 – 20
Power consumption [W]	2 – 5	Wall opening [mm]	105 – 130 mm
Ambient temperatures [°C]	5 – 50	Material	ABS
Diameter x Depth [mm]	185 x 160 x 40	Weight [g]	400

Air flow characteristic extractor fan Aviant



8 Scope of supply

Component	Order number
Aviant	3002-0323

9 Accesories and spare parts

Component	Order number
Accessories	
aV100 Wall mounting set	1001-0159
Wind screen insert WSE R-D100	1004-0173
Spare Part	
Inner cover Aviant	3006-0324

10 Warranty and guarantee

Warranty

Outside Germany, the national warranty regulations of the country in which the system is sold apply. Please contact the distributor in your home country.

The warranty covers all defects that were present at the time of purchase. Failure to observe the intended use will invalidate all warranty claims.

Manufacturer guarantee

inVENTer GmbH provides a five-year warranty on the Aviant extractor fan. This covers premature product wear. Information on the warranty conditions can be found at www.inventer.eu/guarantee.

Claims

Check the delivery for completeness and transport damage upon receipt using the delivery note. Report missing items immediately, and at the latest within 14 days to your supplier, distributor or factory representative.

Warranty and guarantee claims

In the event of a warranty or guarantee claim, contact the distributor or factory representative responsible for you. In any case, send the complete unit back to the manufacturer. The warranty claim is an additional offer by the manufacturer and does not affect applicable law in any way.

11 Service

Complaints

Check the delivery for completeness and transport damage upon receipt, using the delivery note. Complain about missing items immediately, or at the latest within 14 days, to your supplier, dealer or factory representative.

Accesories and spare parts

To order components for your ventilation unit, contact your factory representative or our service staff.

Technical customer service

For technical advice, please contact our technical service staff.



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Disposal

Dispose of the product in accordance with the applicable national regulations. Contact a disposal company for electronic equipment for an environmentally friendly recycling and disposal of your old system. Also dispose of the packaging correctly. The disassembly necessary for disposal is carried out in reverse order of assembly.

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