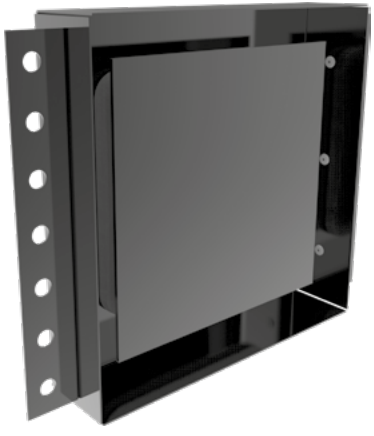


## *FLUSH-MOUNTED AXIAL FAN*

EN

# *Alphaceram*

***USER'S MANUAL***

BLAUBERG

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This user's manual is a main operating document intended for technical, maintenance, and operating staff.
The manual contains information about purpose, technical details, operating principle, design, and installation of the Alphaceram unit and all its modifications.
Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

## SAFETY REQUIREMENTS

This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the unit.
This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
Cleaning and user maintenance shall not be done by children without supervision.
Children shall not play with the appliance.

Connection to the mains must be made through a disconnecting device, which is integrated into the fixed wiring system in accordance with the wiring rules for design of electrical units, and has a contact separation in all poles that allows for full disconnection under overvoltage category III conditions.

Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.
The appliance may adversely affect the safe operation of appliances burning gas or otherfuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of the unit the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.

Ensure that the unit is switched off from the supply mains before removing the guard.

All operations described in this manual must be performed by qualified personnel only, properly trained and qualified to install, make electrical connections and maintain ventilation units.
Do not attempt to install the product, connect it to the mains, or perform maintenance yourself.
This is unsafe and impossible without special knowledge.
Disconnect the power supply prior to any operations with the unit.
All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.

Disconnect the unit from the power supply prior to any connection, servicing, maintenance, and repair operations.
Connection of the unit to power mains is allowed by a qualified electrician with a work permit for the electric units up to 1000 V after careful reading of the present user's manual.
Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.
While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.
Misuse of the unit and any unauthorised modifications are not allowed.
Transported air must not contain any dust or other solid impurities, sticky substances, or fibrous materials.
Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.
Do not close or block the intake or extract vents in order to ensure the efficient air flow.
Do not sit on the unit and do not put objects on it.
The information in this user's manual was correct at the time of the document's preparation.
The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.
Never touch the unit with wet or damp hands.
Never touch the unit when barefoot.
BEFORE INSTALLING ADDITIONAL EXTERNAL DEVICES, READ THE RELEVANT USER MANUALS.



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.**
**DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.**

## DELIVERY SET

| | |
|---|---|
| Fan | — 1 pc. |
| Plastic screwdriver (for models with timer T only) | — 1 pc. |
| Rubber gaskets | — 8 pc. |
| User's manual | — 1 pc. |
| Packing box | — 1 pc. |

## BRIEF DESCRIPTION

The unit described herein is a flush-mounted axial fan for exhaust ventilation of small to medium-sized premises. The fan is designed with ducts for installation in ducts with a diameter of 100 or 125 mm, depending on the model. The fan design can also include a non-return valve to prevent back flow when the fan is switched off. The name and specifications are stated on the label on the unit casing.
The fan design is constantly being improved, thus some models may be slightly different from those described in this manual.

## OPERATION GUIDELINES

The fan is connected to 220-240 V/50 Hz single-phase AC power mains and is designed for continuous operation.
Ingress protection rating against access to hazardous parts and water ingress is IP24.
The fan is rated for operation at the ambient temperature ranging from +1 °C up to +40 °C.
The unit is rated as a Class II electrical appliance.

## DESIGNATION KEY

**Alphaceram Max 100 T e**

**Variations of the base model:**
_: ball bearing with membrane backdraft damper from light polymer by default
e: slide bearing, without backdraft damper
e1: slide bearing, with membrane backdraft damper from light polymer
e2: ball bearing, without backdraft damper
K1: ball bearing with plastic backdraft damper petal type
e K1: slide bearing with plastic backdraft damper petal type

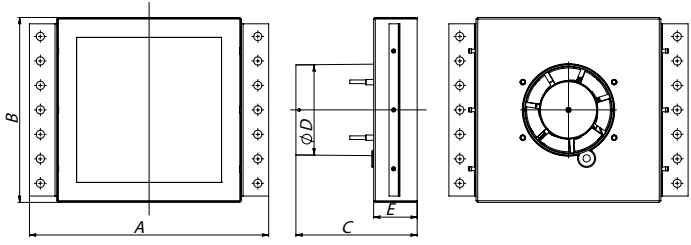
**Basic options:**
T: turn-off delay timer
H: humidity sensor and turn-off delay timer

**Outlet duct diameter [mm]**

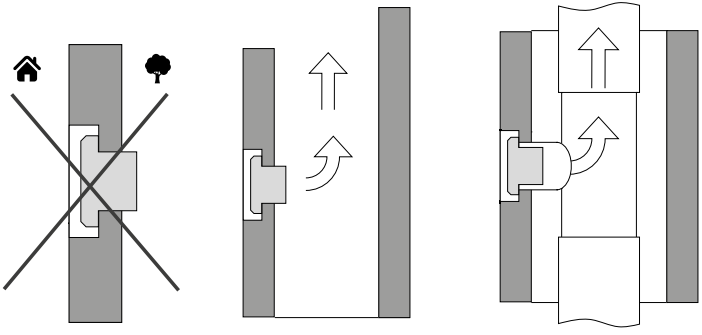
**Motor modification:**
_: standard
Still: with reduced noise level
Max: high-powered motor

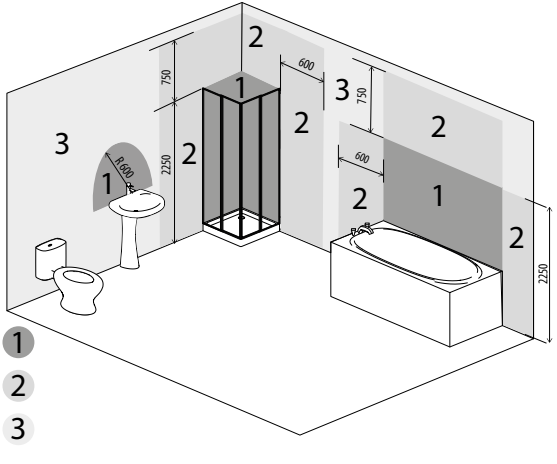
**Fan series**
Alphaceram: flush-mounted fan

## MOUNTING AND SET-UP



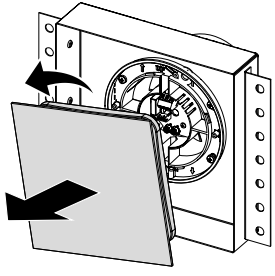

| | D | A | B | C | E |
|---|---|---|---|---|---|
| Alphaceram 100 | 100 | 264 | 204 | 134 | 48 |
| Alphaceram 125 | 125 | 289 | 229 | 136 | 49 |



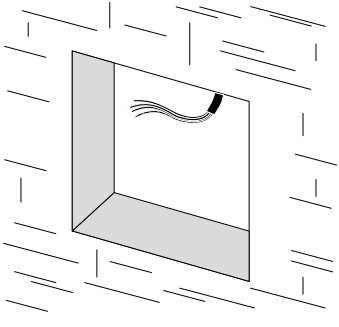


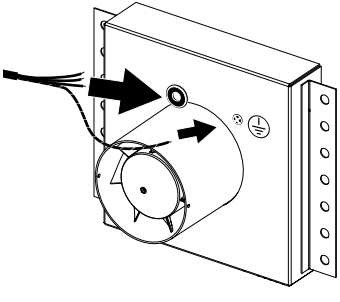

The unit with a protection rating against access to hazardous parts and water ingress IP24 is allowed to be installed in Zone 2 and 3 according to the IEC 60364-7-701:2019.

Remove the front panel from the fan by turning it counterclockwise.



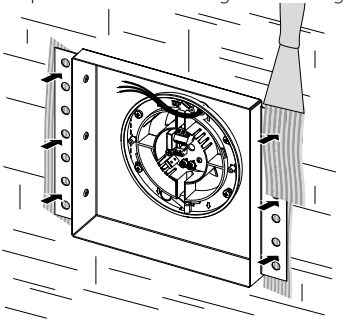
Route the power cable to the vent hole. Route the power cable through the specially designed entry point with a cable gland in the metal casing. Ground the unit.

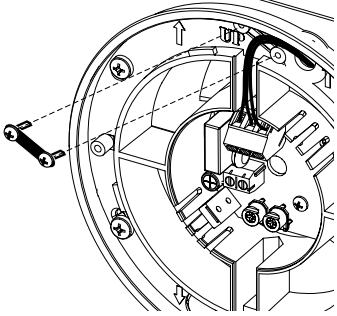




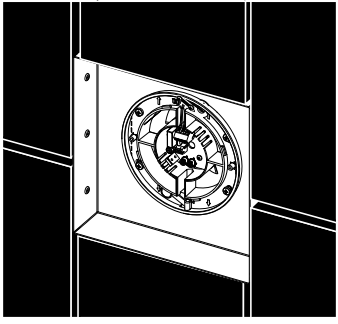
Install the fan and secure it with adhesive mixture designed to be used with decorations. The adhesive mixture is to be applied in points where L-shaped fastening corners come in contact. Press the fan into the mixture. Smooth it out. Cover the L-shaped corners with a layer of the adhesive mixture. The casing can be further fastened to the surface with screws if necessary.

Connect the fan to power mains according to the wiring diagram. Fix the cable with the tightening plate.

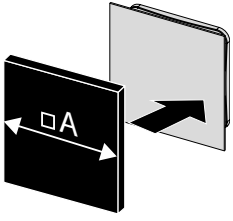




The perimeter of the fan is finished with trim (tiles, drywall, decorative panels, etc.).

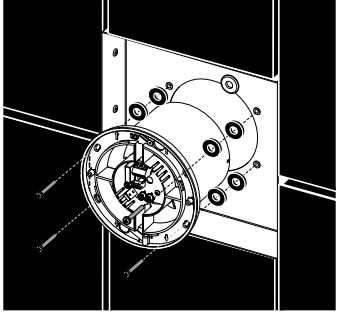


A trim piece is also attached to the front panel; its size (A) is determined based on the fan model. For reliable fastening, it is recommended to use epoxy resin-based adhesive. Cover the edge surfaces of the trim with decorations.



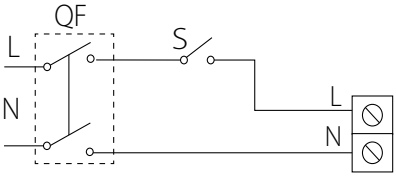

| | 100 Alphaceram | 125 Alphaceram |
|---|---|---|
| A | 170 | 190 |

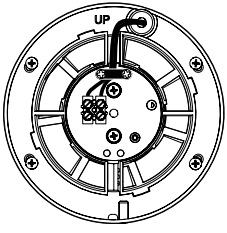
Slide the front panel onto the fan. The front panel covers the equipment, making it unnoticeable. If the trim on the front panel is below the fan edge surface to be trimmed, it is possible to separate the fan casing from the mounting box by placing the rubber gaskets included in the delivery set underneath.



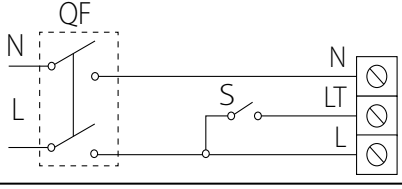
## CONNECTION TO POWER MAINS

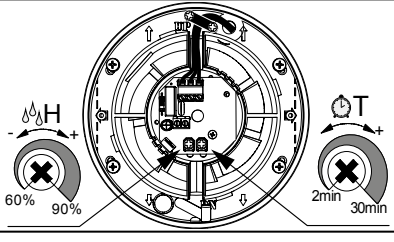
**Alphaceram**



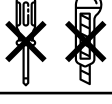




**Alphaceram T/H**




**Terminal designations on the wiring diagram:**
L – phase; N – neutral; LT – timer control line; S – switch; QF – automatic circuit breaker.



**DO NOT USE A METAL SCREWDRIVER, KNIFE, ETC. FOR ADJUSTMENT OPERATIONS NOT TO DAMAGE THE CIRCUIT BOARD**

## ELECTRONICS OPERATION ALGORITHM

**The fan with the T** timer activates upon control voltage application to input terminal **LT (ST)** by an external switch (e.g. indoor light switch). After the control voltage is off, the fan continues to operate within the set time period adjustable from 2 to 30 minutes by the timer.

**The fan with the timer and the humidity sensor TH** – the fan starts after the control voltage is supplied to the input terminal **S** or if indoor humidity level **H** exceeds the set point adjustable from ~60 % to ~90 %.

After the control voltage is off or the humidity level has decreased, the fan will keep running within the time set by the timer ranging from 2 to 30 minutes. To set the maximum humidity setpoint, set the potentiometer to $\mathbf{H_{max}}$ position (90%).

To adjust the fan timer, turn the control knob **T** clockwise to increase and counterclockwise to decrease the delay time respectively.

To adjust the humidity set point, turn the control knob **H** clockwise to increase and counter-clockwise to decrease the humidity sensor set point.

**CAUTION! The timer circuit is live! Disconnect the fan from power mains prior to any adjustment operations. The fan delivery set includes a specially designed plastic screwdriver for fan settings adjustments (only for models equipped with a timer). Use it to change the turn-on and turn-off delay time and the humidity set point.**

**WARNING! The power cable may only be laid through the hole in the casing provided by the manufacturer. Laying the power cable through a manually drilled hole will not be the liability of the manufacturer and will void the warranty. The wire must be stripped of insulation by a maximum of 8 mm.**

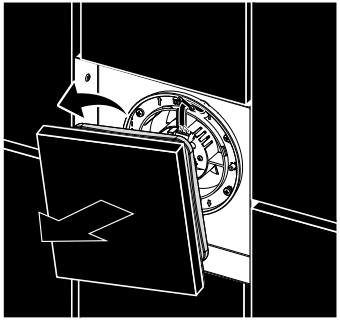
**After installation, pass this user's manual to the end user for reading.**

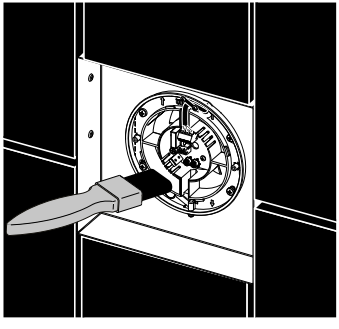
## TECHNICAL MAINTENANCE

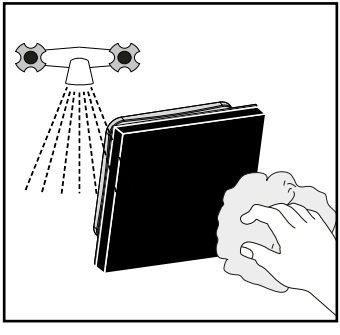
The fan maintenance periodicity is at least once per 6 months.
Maintenance steps:

- Remove the front panel.
- Wipe the fan with a dry cloth or a brush.
- Wash the front panel under running water;
- Wipe the fan surfaces dry;
- Cover the fan with the front panel;
- Connect the fan to power supply.

**CAUTION! Do not allow water or liquid come into contact with electric components!**







## TROUBLESHOOTING

| Problem | Possible reasons | Troubleshooting |
|---|---|---|
| When the unit is connected to power mains, the fan does not rotate and does not respond to any controls. | No power supply. | Make sure the power supply line is connected correctly, otherwise troubleshoot a connection error. |
| | Internal connection fault. | Contact the Seller. |
| Low air flow. | The ventilation system is clogged. | Clean the ventilation system. |
| Increased noise, vibration. | The impeller is clogged. | Clean the impeller. |
| | The fan is not secured well or is not mounted properly. | Troubleshoot the installation error. |
| | The ventilation system is clogged. | Clean the ventilation system. |

## STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 °C to + 40 °C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

## MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above.

The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

**The warranty repair does not include:**

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase. The unit model must comply with the one stated in the user's manual. Contact the Seller for warranty service.

**The manufacturer's warranty does not apply to the following cases:**

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismounted by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- Damage to the unit casing and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.

- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.



**FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT**



**USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP**

Quality Inspector's Stamp _____

**Alphaceram** _____

Seller _____
(name and stamp of the seller)

_____

Purchase Date _____

**Manufacturer:** Ventilation Systems LLC,
Ukraine, Kyiv, 1 M. Kotsyubynskoho Street
**Address of production facilities:**
Ukraine, Kyiv Region, Fastiv District, Boyarka, 36 Sobornosti Street

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