Plain

Reef

Frizz

Aurora

EN

AXIAL FAN
User's manual

VENTS

www.ventilation-system.com

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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 Plain/Reef/Frizz/Aurora 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.

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.

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.
Screws and dowels	– 4 pcs.
Plastic screwdriver (for models with a timer)	– 1 pc.
User's manual	– 1 pc.
Packing box	– 1 pc.

BRIEF DESCRIPTION

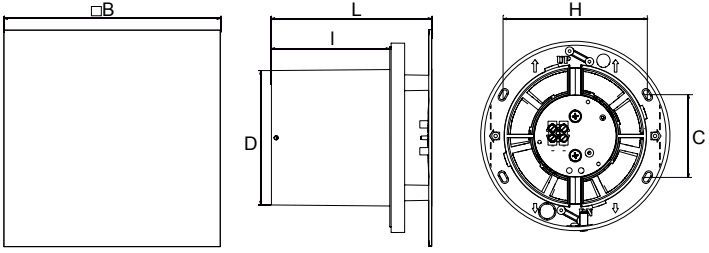
The product described herein is the axial fan for extract ventilation within small and medium-sized residential premises that are heated during the winter period.

The fan design can also include a backdraft damper to prevent back flow when the fan is switched off.

The unit design is constantly being improved, thus some models may be slightly different from those described in this manual.

OVERALL DIMENSIONS, mm

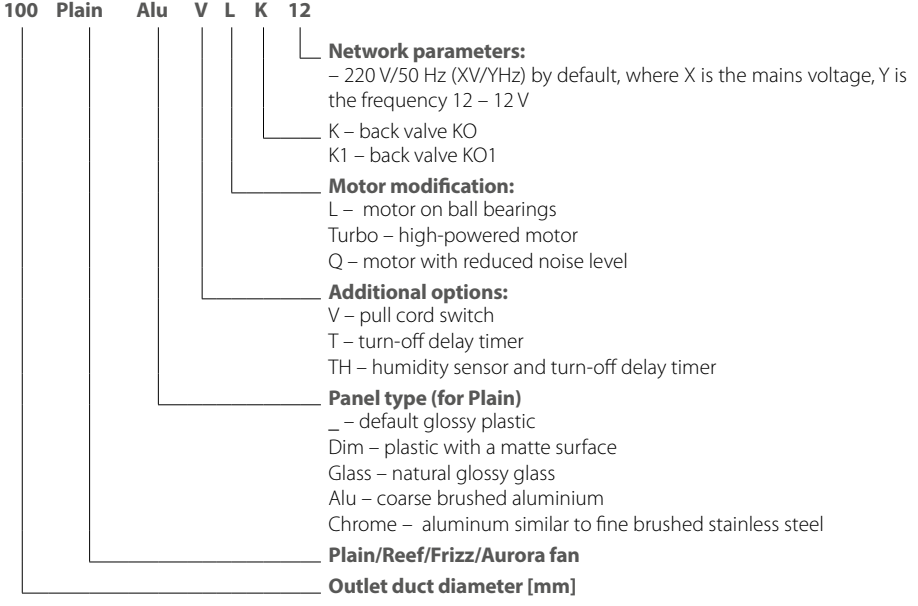
Model	D	B	I	L	H	C
100 Plain	100	160	88	119	103	57
100 Reef				128		
100 Frizz				123		
100 Aurora		180		127		
125 Plain	125			122	125	70



OPERATION GUIDELINES

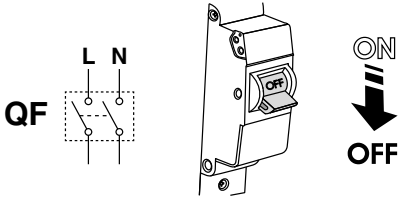
The fan is connected to 220...240 V/50 (60) Hz or 12 V/50 Hz single-phase AC mains depending on the model and is designed for continuous operation without disconnection from power mains.
Air motion direction in the system must match the pointer on the fan casing.
Ingress protection rating against access to hazardous parts and water ingress is IP24.
The fan is rated for operation at the ambient temperature ranging from +1 °C up to +45 °C.
The unit is rated as a Class II (220-240 V/50 Hz) or Class III (12 V/50 Hz) electrical appliance.

DESIGNATION KEY

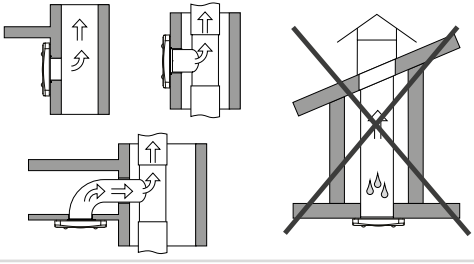


INSTALLATION AND SET-UP

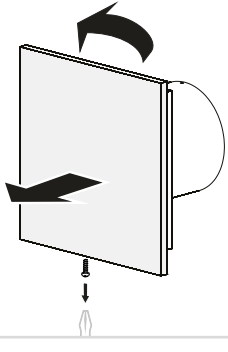
Cut off power supply and make sure electricity has been turned off.



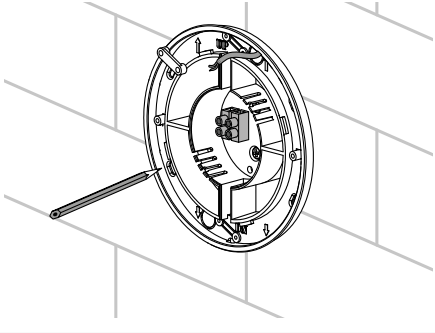
The fan is designed for wall or ceiling mounting with direct air exhaust to the ventilation shaft or into the round air duct of matching diameter.



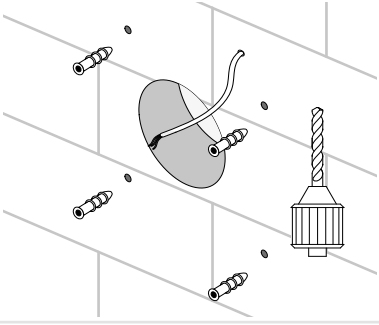
Unscrew the fixing screw. Remove the front panel of the fan by turning it counter-clockwise.



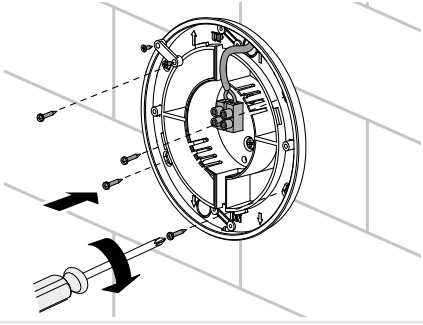
Mark the holes for fixing the fan and the power cable.



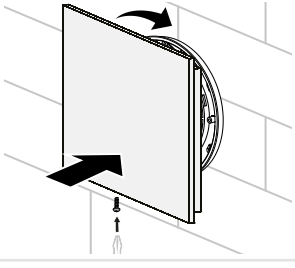
Lead the power cable to the ventilation hole, drill the mounting holes and install the dowels.



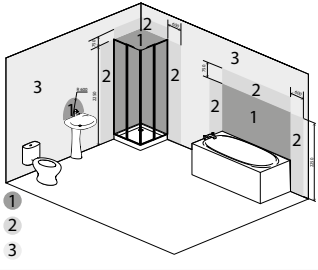
Fix the fan with the screws.



Connect the fan to the electric mains according to the connections diagram. Install the front panel by turning it clockwise. Thread the fixing screw.



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



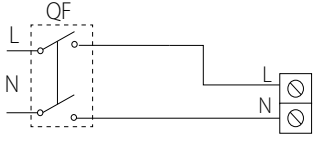
CONNECTION TO POWER MAINS

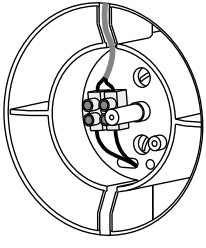
The fan is rated for connection to single-phase AC 220-240 V/50 (60) Hz.

Terminal designations on wiring diagrams:

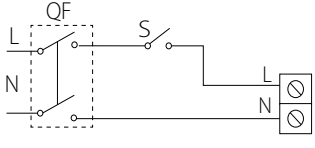
L – phase
N – 0
LT – timer control line
QF – automatic circuit breaker
S – ON\OFF switch

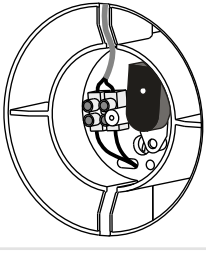
Plain/Reef/Frizz/Aurora



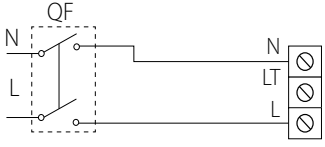


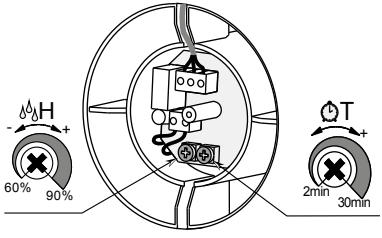
Plain/Reef/Frizz/Aurora V



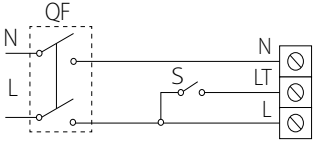


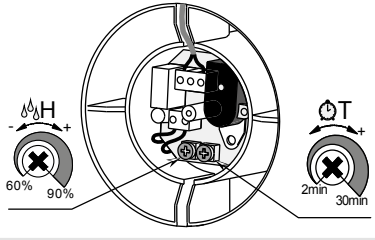
Plain/Reef/Frizz/Aurora T/TH





Plain/Reef/Frizz/Aurora VT/VTH





ELECTRONICS OPERATION ALGORITHM

The fan with the timer T is started after actuation of the external switch, e.g. the light switch. The control voltage is supplied to the input terminal **LT (ST).**

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 **V** and **VT** models are turned on and off by an integrated pull-cord switch.

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 %.

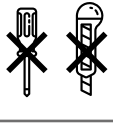
After the control voltage is off or the humidity level has decreased, the fan will keep running within the time set by the timer ranging from 2 to 30 minutes.

To set the maximum humidity setpoint 90 % set the potentiometer to $\mathbf{H}_{max}$ position.

To adjust the fan timer time, turn the control knob **T** clockwise to increase and counter-clockwise 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.

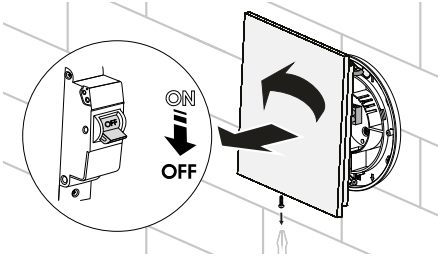


DO NOT USE A METAL SCREWDRIVER, KNIFE, ETC. FOR ADJUSTMENT OPERATIONS NOT TO DAMAGE THE CIRCUIT BOARD

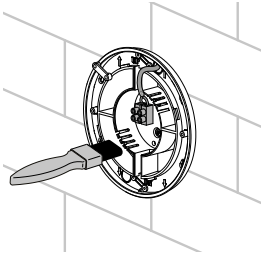
TECHNICAL MAINTENANCE

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

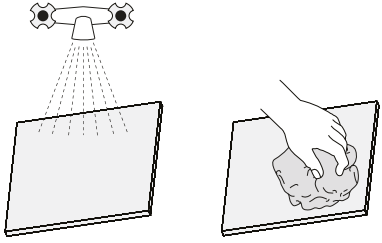
Disconnect the fan from power supply. Remove the fixing screw. Remove the front panel.



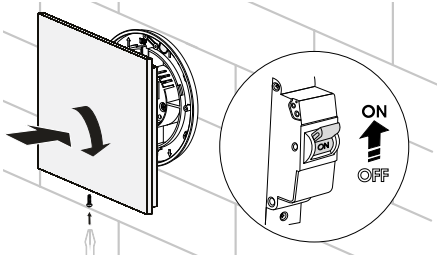
Clean the fan with a soft dry cloth or a brush.



Wash the front panel under running water. Wipe the fan surfaces dry.



Install the front panel to the fan. Screw in the fixing screw. Connect power supply.



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

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 60 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:

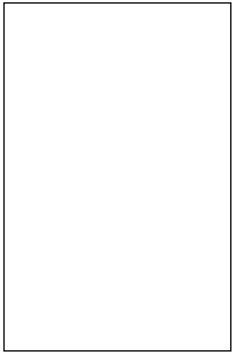
- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismounted by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's 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.

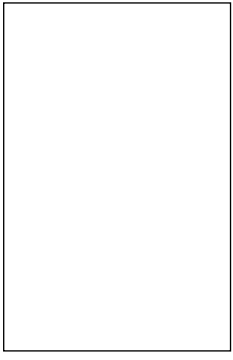
FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT

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

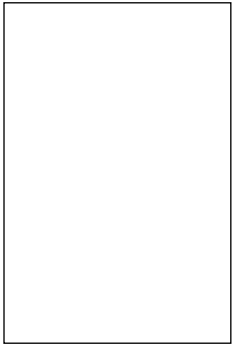
Quality Inspector's Stamp



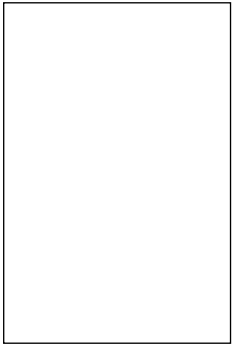
Sold by
(name and stamp of the seller)



Manufacture Date



Purchase Date



Certificate of acceptance

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The fan is recognized as serviceable.