EN

# AXIAL FANS
# USER'S MANUAL

## WARNING!

Disconnect the fan from power supply prior to any connection, servicing and repair operations.

**Only duly qualified electricians with valid electrical permit for electric operations at the units with operating voltage up to 1000 V are allowed for mounting and maintenance after careful study of the present user's manual.**

The single-phase power mains must comply with the acting local electrical norms and standards.

The fixed electrical wiring must be equipped with an automatic circuit breaker.

The fan must be connected to power mains through an automatic circuit breaker QF integrated into fixed wiring system with the gap between the breaker contacts on all poles not less than 3 mm.

Check the fan for any visible damages of the impeller and the casing before starting installation. The casing internals must be free of any foreign objects which can damage the impeller blades.

Due to constant improvements the design of some models may slightly differ from those ones described in this manual.

While mounting the fan avoid the casing compression!

Deformation of the casing may result in the motor jam and excessive noise.

Misuse of the fan and any unauthorised modifications are not allowed.

Take steps to prevent ingress of smoke, carbon monoxide and other combustion products into the room through open chimney flues or other fire-protection devices. Sufficient air supply must be provided for proper combustion and exhaust of gases through the chimney of fuel burning equipment to prevent back drafting.

Transported air must not contain any dust or other solid impurities, sticky substances or fibrous materials.

Do not use the fan in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.

Do not close or block the fan intake or extract vents in order to ensure the efficient stream.

Do not sit on the fan and do not put objects on it.

The timer circuit is live.

Disconnect the fan from power supply prior to any adjustment operations.

The fan delivery set includes a specially designed plastic screwdriver for adjustment of the fan parameters.

Use the plastic screwdriver to change the fan turn-off delay time.

The product is allowed to 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 provided that they have been given supervision or instruction regarding a safe use of the product and understand the risks involved.

Do not allow children play with the product.

Fan cleaning and maintenance must only be performed by children under adult supervision.

RECYCLE AT THE END OF THE SERVICE LIFE.
DO NOT DISPOSE THE PRODUCT WITH UNSORTED MUNICIPAL TRASH.

## DESIGNATION KEY

**100 AGF X K X X**

**Exhaust pipe diameter [mm]**

**Fan series**

**Extra options:**
V: pull cord switch
T: turn-on delay timer
T1: turn-on and turn-off delay timer
TH: humidity sensor and turn-off delay timer
TP: motion sensor and turn-off delay timer

**K: back valve**

**Motor and impeller modifications:**
**L:** ball bearing motor
**turbo:** high-powered motor
**Q:** low-powered motor
**12:** motor compatible with 12V/50 Hz safe voltage
**press:** high-pressure motor

**Power mains parameters**
_ - 230 V / 50-60 Hz by default
If the fan is compatible with other power supply parameters, these are indicated in the fan model name.

## DELIVERY SET

- Fan - 1 item
- Screws and dowels - 4 items
- Plastic screwdriver (only for the models with a timer)
- User's manual
- Packing box

EN

## BRIEF DESCRIPTION

The products is an axial fan for exhaust ventilation of small to medium-sized premises.

The fan is made of white plastic.

This fan may be equipped with a back valve that prevents air back drafting at the fan standstill.

The fan is designed for connection to 100, 125 and 150 mm air ducts.

Due to constant improvements the design of some models may slightly differ from those ones described in this manual.

## OPERATION GUIDELINES

The fan is rated for connection to 220...240 V / 50-60 Hz AC single-phase power supply source.

supply via a step-down transformer, for example, TRF 220/12-25 (not included in the delivery, available upon separate order).

The fan is designed for continuous operation always connected to power mains.

Air flow direction in the system must match the pointer direction on the fan casing.

Ingress protection rating against access to hazardous parts and water ingress is IP 34.

The fan is rated for operation at the ambient temperature ranging from +1 °C up to +45 °C.

The fan requires no grounding.

## MOUNTING

**READ THE USER'S MANUAL CAREFULLY BEFORE PROCEEDING WITH INSTALLATION WORKS. COMPLIANCE WITH THE MANUAL REQUIREMENTS ENSURES RELIABLE OPERATION AND LONG SERVICE LIFE OF THE PRODUCT.**
**KEEP THE USER'S MANUAL AVAILABLE AS LONG AS YOU USE THE PRODUCT. YOU MAY NEED TO RE-READ THE INFORMATION ON THE PRODUCT SERVICING.**

The fan is designed for vertical or horizontal installation and connection to a ventilation shaft or a round air duct of a matching diameter, Fig. 1.

Fan mounting steps:

Step 1. Cut off power supply and prepare a premise for installation of the fan, Fig. 2-3.
Step 2. Remove the front panel from the fan, Fig.4 .
Step 3. Mark and drill the holes for fasteners, insert the fasteners and fix the fan, Fig. 5-7.
Step 4. Connect the fan to power supply and adjust the timer and humidity set points if required, Fig. 8-14.
Step 5. Cover the fan with a front panel, Fig. 15.
Step 6. Connect the fan to power supply, Fig. 16.

## TERMINAL DESIGNATION KEY

| | |
|---|---|
| **L** | live wire (applicable for 220-240 V/ 50-60 Hz) |
| **N** | neutral wire (applicable for 220-240 V/ 50-60 Hz) |
| **~** | 12 V/50 Hz power supply |
| **LT (ST)** | timer control circuit |
| **QF** | automatic circuit breaker |
| **S** | external on/off switch |

**ATTENTION! THE FAN RATED FOR 12V POWER SUPPLY (MARKED ON THE FAN CASING) MUST BE CONNECTED TO 12 V POWER SUPPLY SOURCE ONLY!**

## FAN OPTIONS

**V** - The fan is turned on and off with an integrated pull cord switch.

**T** - The fan is turned on with an external switch, for example, a light switch. After the fan is turned off with a switch, for example, a light switch, the fan keeps operating for a set turn-off delay time, adjustable from 2 to 30 minutes.

**T1** - After the fan is turned on with an external switch, for example, a light switch, the fan activates in a set turn-on delay time, adjustable from 10 to 90 seconds. After the fan is turned off the fan keeps operating for a set turn-off delay time period, adjustable from 2 to 30 minutes. The turn-on and turn-off delay time are set by means of the jumper on the control circuit board.

**TH** - The fan is turned on with an external switch, for example, a light switch or it is activated by the humidity sensor as the indoor humidity exceeds set level, adjustable from 60% up to 90%. After the fan is turned manually off with a light switch or after the humidity level drops down below the set point the fan keeps operating for a set turn-off delay time period, adjustable from 2 to 30 minutes.

To adjust the humidity set point turn the control knob H clockwise to increase and counter-clockwise to decrease the humidity sensor set point, Fig. 13. To set the maximum humidity setpoint 90% set the potentiometer to Hmax position.

**TP** - The fan is turned on in case of activation of the motion sensor.

The motion sensor has a reach distance 1-4 m and horizontal viewing angle up to 100°. After no motion more is detected the fan keeps operating for a set turn-off delay time period, adjustable from 2 to 30 minutes.

To adjust the fan turn-on delay time, turn the control knob Tz clockwise to increase and counter-clockwise to decrease the turn-on delay time respectively, Fig. 12.

To adjust the fan turn-off delay time, turn the control knob T clockwise to increase and counter-clockwise to decrease the turn-off delay time respectively, Fig. 12-13.

***Warning!*** The timer circuit is live! Disconnect the fan from power supply prior to any adjustment operations. The fan delivery set includes a specially designed plastic screwdriver for fan settings adjustments. 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 control circuit board.

## MAINTENANCE

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

Maintenance steps:

- Disconnect the fan from power supply. Fig. 17.
- Remove the front panel, Fig. 18.
- Wipe the fan with a dry cloth or a brush wetted in a mild detergent solution.
- Flush the front panel and rinse it with running water, Fig. 19-21.
- Wipe the fan surfaces dry.
- Cover the fan with the front panel, Fig. 22.
- Connect power supply to the fan, Fig. 16.

***WARNING!*** Avoid water dripping on the electric components.

## TRANSPORTATION AND STORAGE RULES

Store the product in the manufacturer's original packing box in a dry ventilated premise at ambient temperatures from +5°C up to + 40°C. Storage environment must not contain aggressive vapours and chemical mixtures provoking corrosion, insulation and sealing deformation.

The unit can be carried in the original packing by any mode of transport provided proper protection against precipitation and mechanical damage.

Avoid sharp blows, scratches or rough handling during loading and unloading.

## MANUFACTURER'S WARRANTY

«We hereby declare that the product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

This certificate is issued following test carried out on samples of the product referred to above.»

The manufacturer sets forth the warranty period of the fan within 60 months after the sale via retail network subject to the customer's ensuring compliance with the transportation, storage, mounting and operation rules.

In case of any malfunction of the fan through the manufacturer's fault within the warranty period the

customer is entitled to free elimination of the defects by means of warranty repair.
The warranty repair means performing works specific to elimination of faults in the fan operation to ensure its intended use by the user within the warranty period.
The defects are eliminated by means of replacement or repair of the complete fan or a faulty part thereof.

**The warranty repair does not include:**

- Routine maintenance;
- Fan installation / dismantling;
- Fan setup.

To benefit from warranty repair the user must provide the fan, the user's manual with stamped sale date and the payment document to confirm the purchase.

The fan model must comply with the one stated in the user's manual.

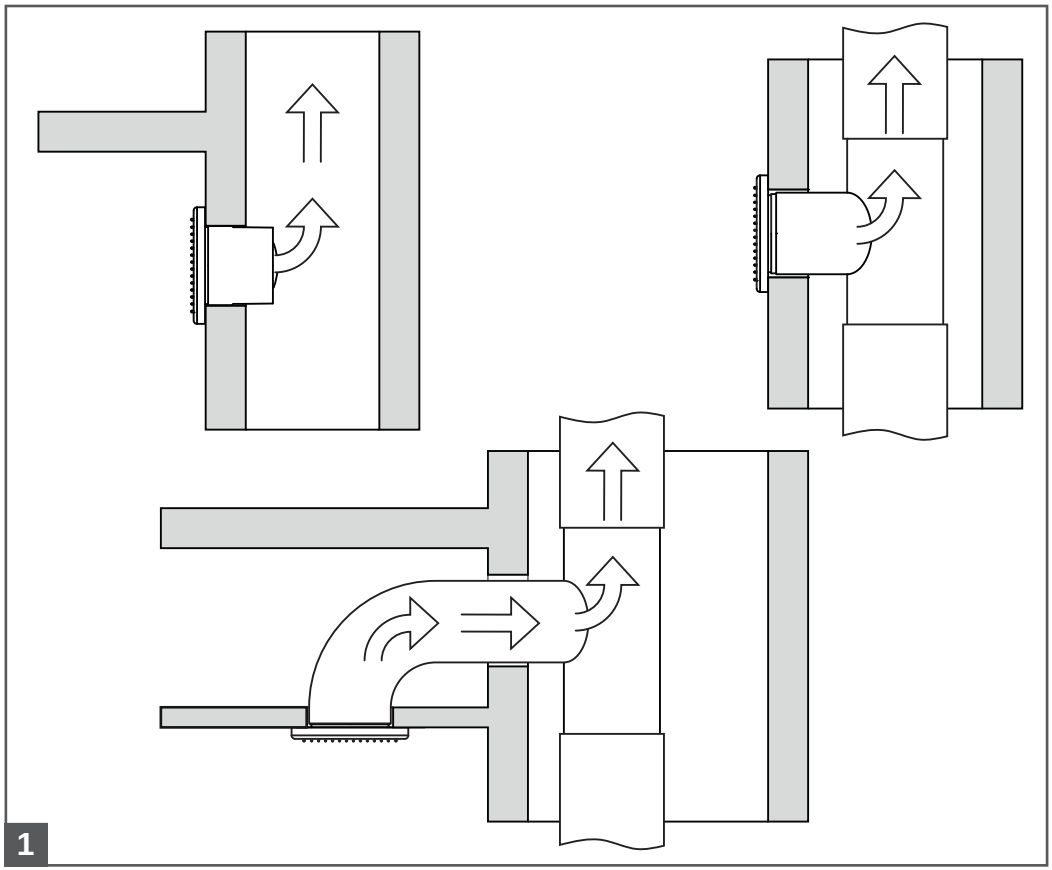
Contact the product seller for warranty service, repair or replacement.

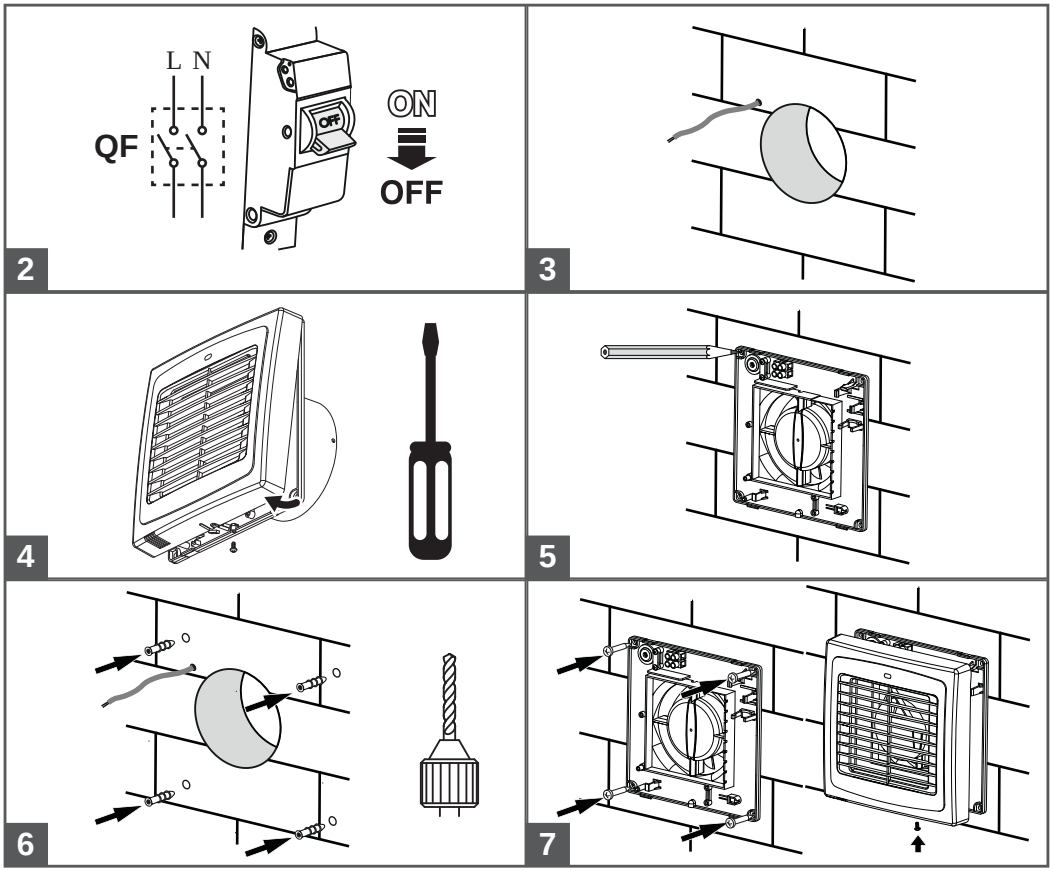
**The manufacturer's warranty does not apply to the following cases:**

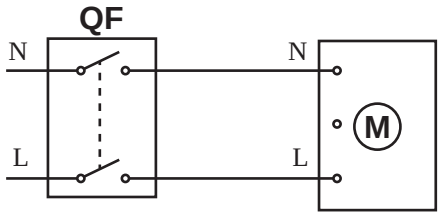
- user's failure to provide the fan in the entire delivery package as stated in the user's manual, including missing component parts previously dismounted by the user;
- mismatch of the fan model and make with the respective details stated on the fan packing and in the user's manual;
- user's failure to ensure timely technical maintenance of the fan;
- external damage to the casing (excluding external modifications of the fan as required for its installation) and the internal components of the fan;
- alteration of the fan design or engineering changes of the fan;
- replacement and use of the assemblies, parts and components not approved by the manufacturer;
- not intended use of the fan;
- user's violation of the fan control regulations;
- fan connection to power pains with a voltage other than the one stated in the user's manual or on the sticker on the fan casing;
- fan breakdown due to voltage surges in the power mains;
- user's discretionary repair of the fan;
- repair performed by any persons without the manufacturer's authorization;
- expiry of the warranty period;
- user's violation of the established regulations specific to the fan transportation;
- user's violation of the fan storage regulations;
- wrongful acts against the fan committed by third persons;
- fan breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind,

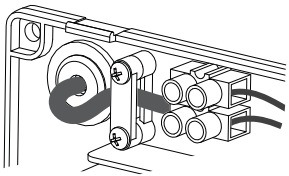
blockade, etc.);
- missing seals if provided by the user's manual;
- failure to submit the user's manual with the sale date stamp;
- failure to submit the warranty card;
- failure to submit a payment document certifying the fan purchase. .

**FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE FAN.**
**USERS' CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON SUBMISSION OF THE FAN, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE SALES DATE STAMP.**


1

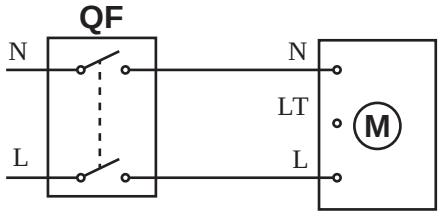

L N
QF
OFF
ON
OFF
2
3
4
5
6
7

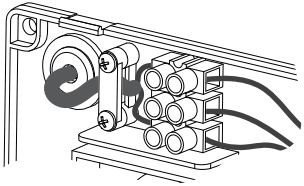


8

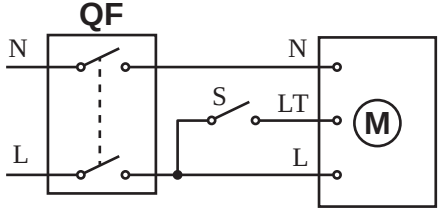
- / V / TP

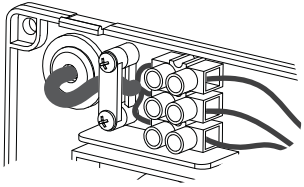


9

VT/VTH



10

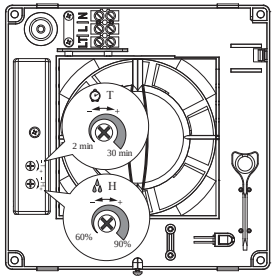
T / T1 / TH

**ATTENTION!**

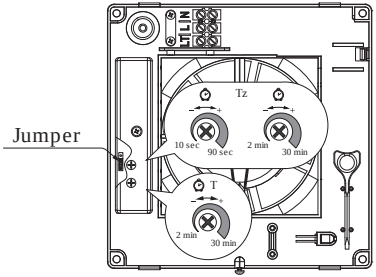
*— The fan rated for 12 V power supply (marked on the fan casing) must be connected to 12 V power supply source only!

11

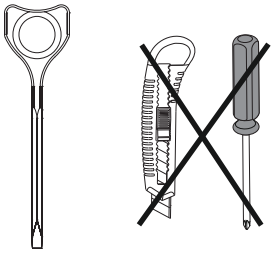
12



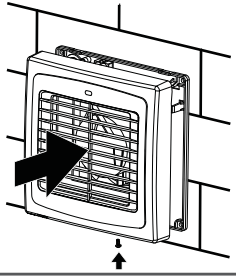

13



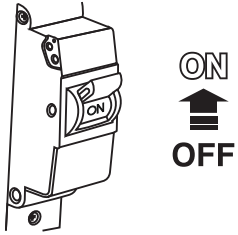

14

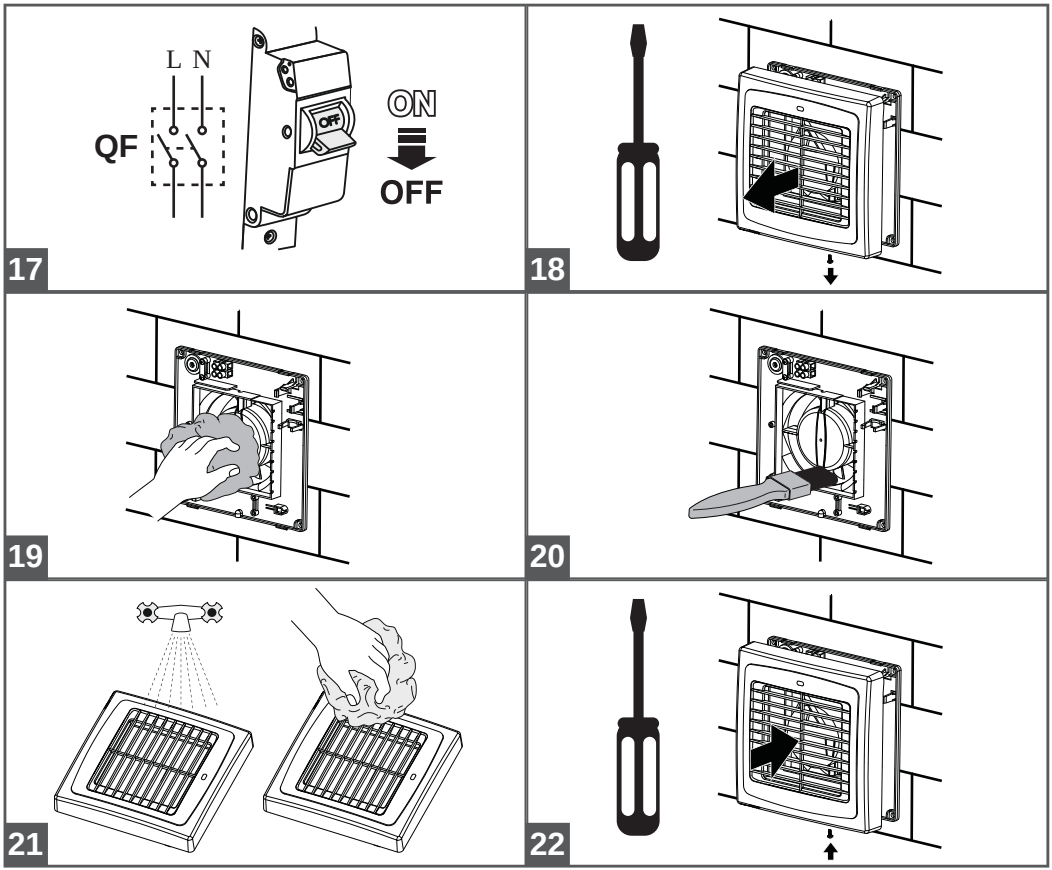


15

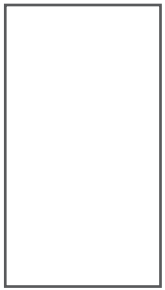


16

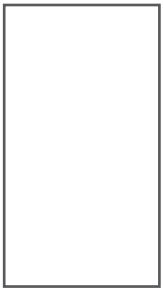



L N
QF
OFF
ON
OFF
17
18
19
20
21
22

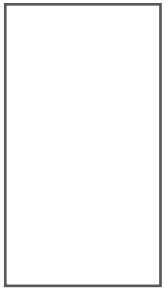
Approval mark



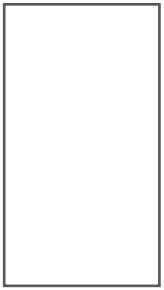
Sold
(name and stamp of the seller)



Manufacturing date



Sales date



# ACCEPTANCE CERTIFICATE

100 ◯
125 ◯
150 ◯

AGP ◯

V ◯
T ◯
T1 ◯
TH ◯
TP ◯

K ◯

turbo ◯
press ◯
12 ◯
Б ◯
Л ◯

The fan is recognized as serviceable.