

# DAIF 100-150

(Axial Inline Fan)

Air Capacity up to  
**1540 m<sup>3</sup>/h**



## BRIEF DESCRIPTION

- The product is a duct axial fan for supply or exhaust ventilation of small and medium-sized premises.
- The fan is designed for connection to Ø100, 125, or 150 mm air ducts depending on the model.

## Product Specifications

|                              | DAIF 100 | DAIF 125 | DAIF 150 |
|------------------------------|----------|----------|----------|
| Size                         | 100      | 120      | 150      |
| Voltage [V]                  | 220/240  | 220/240  | 220/240  |
| Frequency [Hz]               | 50/60    | 50/60    | 50/60    |
| Power [W]                    | 14       | 17       | 22       |
| Air flow [m <sup>3</sup> /h] | 80       | 150      | 250      |
| Noise level [dB]             | 33       | 35       | 37       |

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.

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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 other fuels (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.

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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.**

## OPERATION GUIDELINES

The fan is rated for connection to single-phase AC power mains. Power supply parameters are stated on the unit packaging and/or the label on the unit casing. Ingress protection rating against access to hazardous parts and water ingress is IPX4.

**WARNING! IP is shown for the mounted product.**

The fan is rated for operation at ambient temperatures ranging from +1 °C to +40 °C.

**WARNING! Do not operate the fan outside the specified temperature range.**

The unit is rated as a Class II (220-240 V, 50 Hz) or Class III (12 V/50 Hz) electrical appliance and requires no grounding

## DESIGNATION KEY

100 X X X X

### Motor Modification

L: motor on ball bearings

Turbo: high-powered motor

Q: low-noise motor

12: motor with 12 V/50 Hz rated voltage

press: motor, allowing to increase pressure created by the fan

### Basic options

T: turn-off delay timer

### Design

k: mounting bracket

### Fan series

DAIF 100

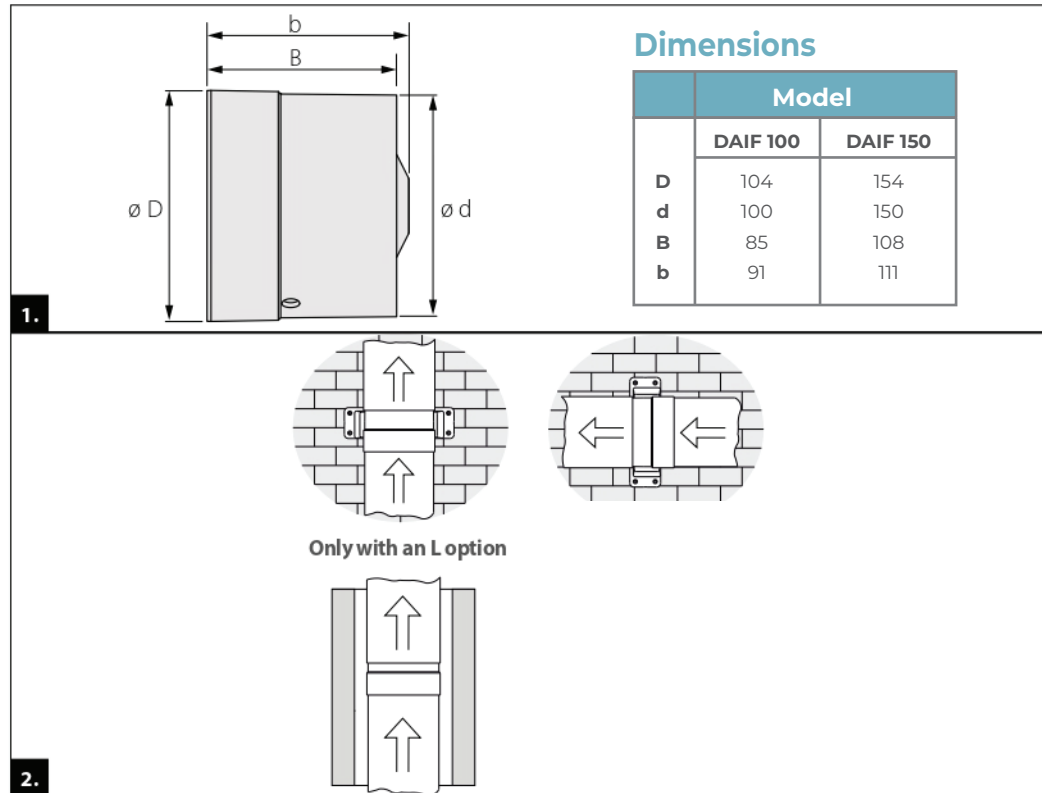
DAIF 150

### Outlet spigot diameter [mm]

100/150

# INSTALLATION

The fan can be installed vertically (only with motors on ball bearings, option L) or horizontally in a round duct (Fig. 2) of appropriate diameter (Fig. 1).



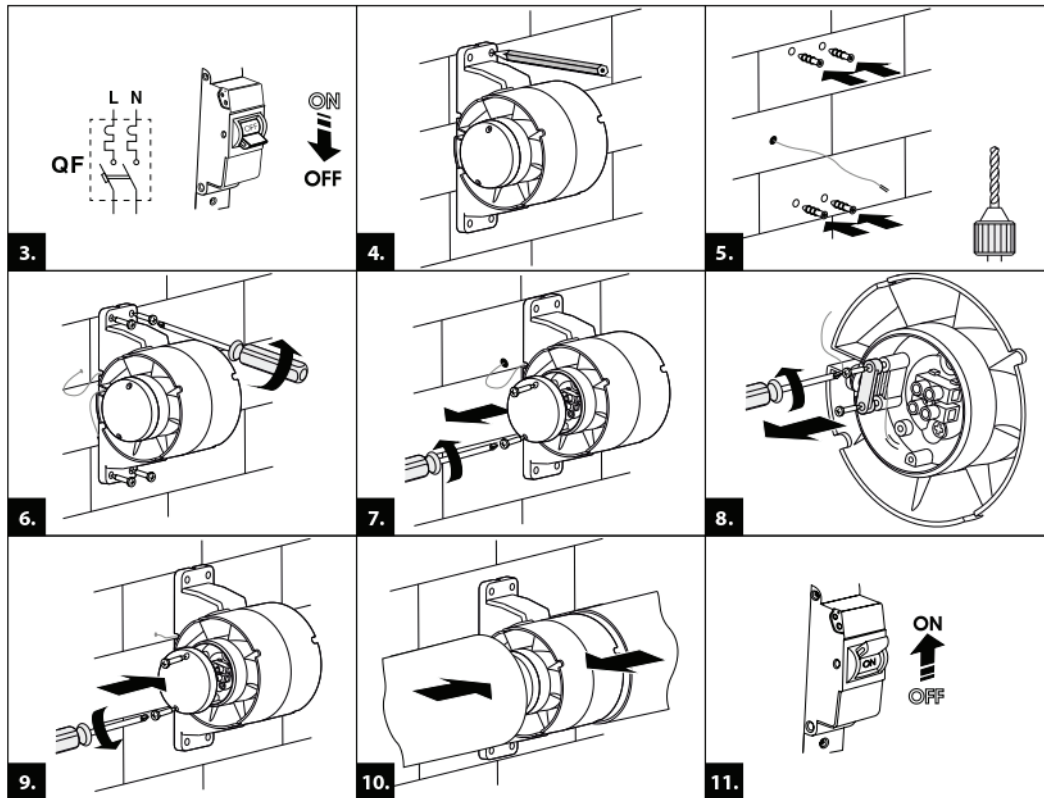
## Fan installation sequence:

- Disconnect power supply (Fig. 3).
- Mark and drill holes for fastening the mounting bracket of the fan and then install the fan (Fig. 4-6).
- Remove the terminal compartment cover and the cable clamp from the fan (Fig. 7).
- Connect the fan to power mains, screw the cable clamp into place, adjust the timer time if necessary (Fig. 8-9).
- Install the terminal compartment cover on the fan casing (Fig. 9).
- Connect the air ducts of the corresponding diameter on both sides of the fan (Fig. 10).
- Apply power to the fan (Fig. 11).

Installation, connection, adjustment and maintenance of fans without a bracket is carried out similarly, with the exception of paragraph 2 when you just need to insert the fan into the round duct.

The fan mounting sequence is shown in Fig. 3-11.

The fan wiring diagrams are shown in Fig. 12.



Terminal designations on the wiring diagrams:

L— line/~/12 V

N— neutral/~/12 V

LT— timer control line

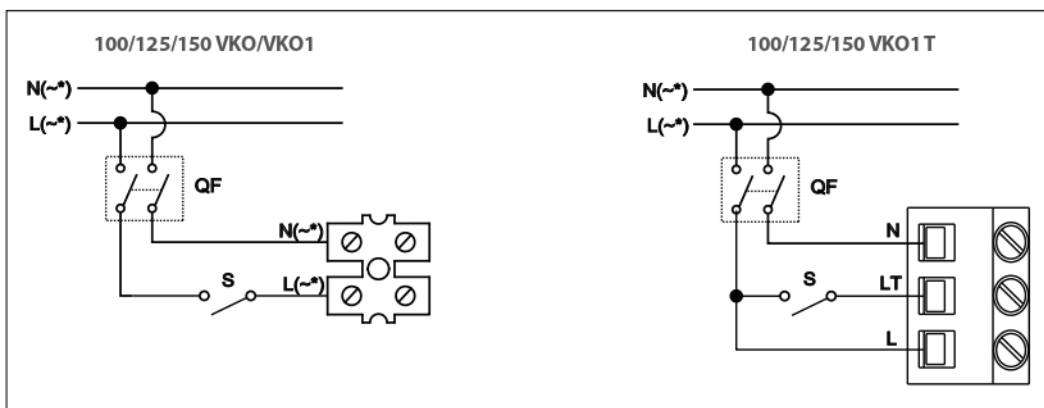
S— external switch

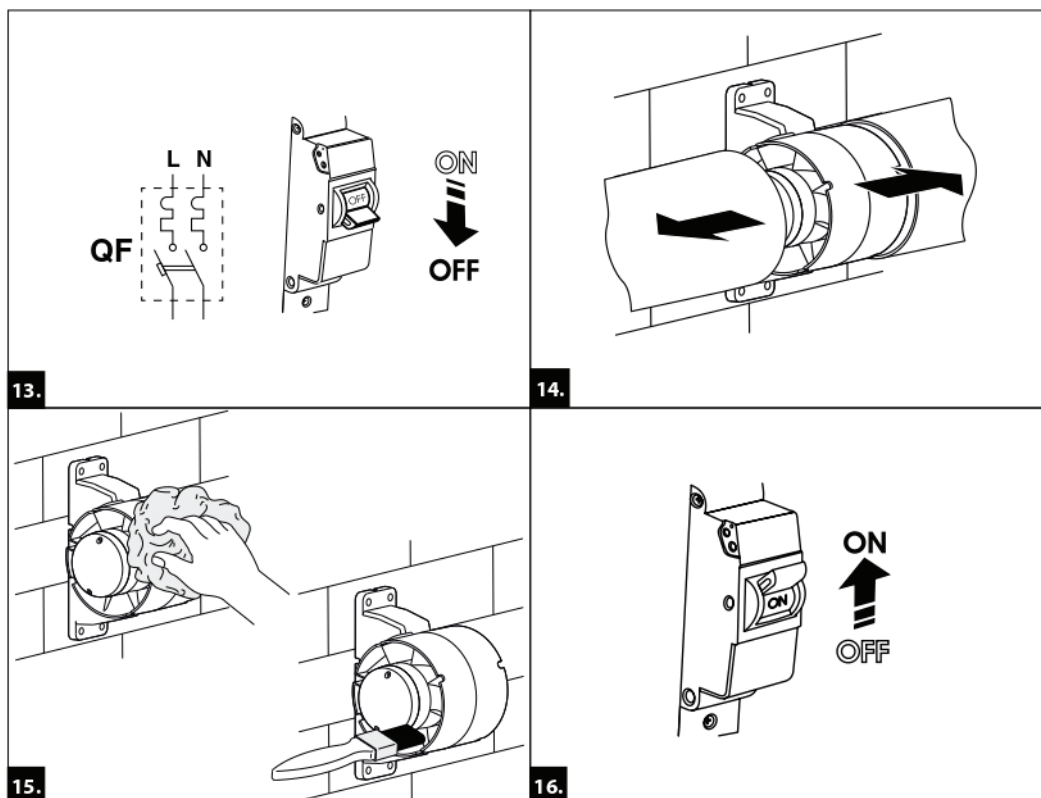
QF— double-pole circuit breaker

**WARNING! The fans rated for 12 V power voltage (stated on the packing box and on the fan casing) connect to 12 V power mains only!**

**WARNING! The power cable may only be laid through the hole in the casing provided by the manufacturer (Fig. 13). Laying the power cable through a manually drilled hole will not be the liability of the manufacturer and will void the warranty. The wires must be stripped of insulation by a maximum of 8 mm.**

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



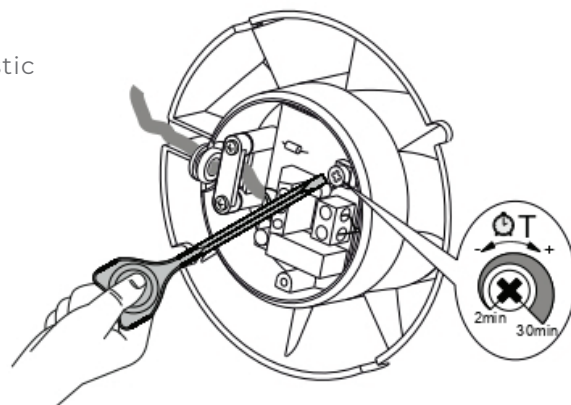


## OPERATION GUIDELINES

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

**T<sub>on</sub>** — To adjust the fan turn-off delay time, turn the control knob **T<sub>off</sub>** clockwise to increase and counter-clockwise to decrease the turn-off delay time respectively, adjustable from 2 up to 30 minutes.

The fan delivery set includes a specially designed plastic screwdriver for fan settings adjustments. Use it to change the fan turn-off delay time.



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

## 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 the 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.                                                                        |