GB

# Installation manual
# TIFA - Axial fan

Read this manual carefully before using the product and keep it in a safe place for reference.
This product was constructed up to standard and in compliance with regulations relating to electrical equipment and must be installed by technically qualified personnel.
The manufacturer assumes no responsibility for damage to persons or property resulting from failure to observe the regulations contained in this booklet.

Fig. 1

## PRECAUTIONS FOR INSTALLATION, USE AND MAINTENANCE

- The device should not be used for applications other than those specified in this manual.
- After removing the product from its packaging, verify its condition. In case of doubt, contact a qualified technician. Do not leave packaging within the reach of small children or people with disabilities.
- Do not touch the appliance with wet or damp hands/feet.
- 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. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision. Children should be supervised to ensure that they do not play with the device.
- Do not use the product in the presence of flammable vapours, such as alcohol, insecticides, gasoline, etc.
- If any abnormalities in operation are detected, disconnect the device from the mains supply and contact a qualified technician immediately. Use original spare parts only for repairs.
- The electrical system to which the device is connected must comply with regulations.
- Before connecting the product to the power supply or the power outlet, ensure that:
  - the data plate (voltage and frequency) correspond to those of the electrical mains
  - the electrical power supply/socket is adequate for maximum device power. If not, contact a qualified technician.
- The device should not be used as an activator for water heaters, stoves, etc., nor should it discharge into hot air/fume vent ducts deriving from any type of combustion unit. It must expel air outside via its own special duct.
- Operating temperature: 0°C up to +50°C.
- The device is designed to extract clean air only, i.e. without grease, soot, chemical or corrosive agents, or flammable or explosive mixtures.
- Do not leave the device exposed to atmospheric agents (rain, sun, snow, etc.).
- Do not immerse the device or its parts in water or other liquids.
- Turn off the main switch whenever a malfunction is detected or when cleaning.
- For installation an omnipolar switch should be incorporated in the fixed wiring, in accordance with the wiring regulations, to provide a full disconnection under overvoltage category III conditions (contact opening distance equal to or greater than 3mm).

- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not obstruct the fan or exhaust grille to ensure optimum air passage.
- Ensure adequate air return into the room in compliance with existing regulations in order to ensure proper device operation.
- If the environment in which the product is installed also houses a fuel-operating device (water heater, methane stove etc., that is not a "sealed chamber" type), it is essential to ensure adequate air intake, to ensure good combustion and proper equipment operation.
- Install the product so that the impeller is not accessible from the air outlet side as verified by contact with the Test Finger (test probe "B" of the norm EN61032) in compliance with the current safety regulations.
- Ceiling installation
  In order to guarantee the IPX4 degree of protection against moisture in case of ceiling installation, use the appropriate ceiling mount kit, which is not included. Use only the rear entry hole for supply cables. If there is a possibility of condensation along the air discharge duct, provide a drainage system to prevent condensation from discharging into the environment through the fan.
  **Attention:** do not mount the product on the ceiling without this kit.
- Window installation
  In case of window installation it is necessary to use the appropriate window kit, which is not included.
  **Attention:** do not mount the product on the window without this kit.

## INTRODUCTION

TIFA (Fig. 1) is an axial fan designed to ensure air extraction in small/medium-sized rooms such as bathrooms, toilets and kitchens.
Suitable for air discharge directly to the outside or in the presence of short linear duct (less than 1.5m). Wall, ceiling or window installation (Fig. 2).

## TECHNICAL SPECIFICATIONS

- Material: high quality, impact and UV-resistant ABS colour RAL 9010.
- Design front cover removable for cleaning without the use of tools.
- Rear reinforcement ring to prevent spigot deformation during installation.
- High efficiency aerodynamic fan with "winglet" blades to optimise quietness and efficiency.
- Single phase induction motor with integral thermal protection.
- Motor mounted on high quality sleeve bearings.
- The fan is double insulated: no earth connection is required.
- Suitable for continuous or intermittent operation.
- IPX4 degree of protection.
- Power supply 220V to 240V~ 50/60Hz.

| Model | Airflow $m^3/h$ max | Static pressure Pa max | Power W max | Sound pressure dB(A) @3m |
|---|---|---|---|---|
| TIFA100HT | 83 | 27 | 8 | 26 |
| TIFA120T | 140 | 40 | 14 | 34 |
| TIFA150T | 253 | 51 | 24 | 42 |

## VERSIONS

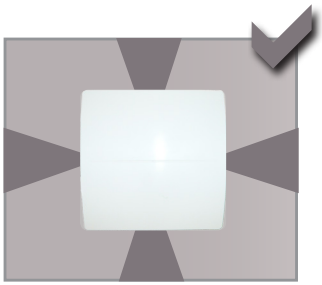
### WITH TIMER (over-run)

The fan is provided with a timer circuit which is adjustable from aprox. 1 minute to 25 minutes via trimmer (Fig. 15A).
Operation: connected according to the diagram in Fig. 14A, after the light is switched on, the fan activates with a delay of max 1.5 seconds. After the light is switched off, the fan continues to function for a pre-set period of time.

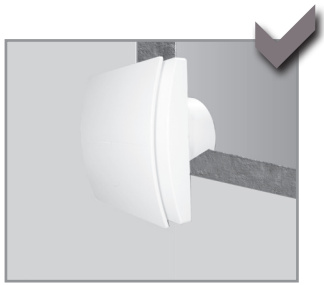
### WITH HUMIDISTAT & TIMER

The fan is equipped with a humidity detector, whose threshold is adjustable from 50% to 95% Relative Humidity, and with a timer which is adjustable from aprox. 1 minute to 25 minutes via corresponding trimmer (Fig. 15B).
Turn the trimmer HY completely clockwise and the humidistat function is deactivated.
Automatic humidistat operation: connected according to the diagram in Fig. 14B, when the percentage of Relative Humidity exceeds the pre-set intervention threshold, the fan starts up automatically. When the percentage of Relative Humidity goes below the threshold, the fan continues to function for a pre-set period of time.
Operation with switch connection: connected according to the diagram in Fig. 14B, after the light is switched on, the fan activates with a delay of aprox. 1.5 seconds. After it is switched off, the fan continues to function for a pre-set period of time.
**Attention:** When the relative humidity level is higher than the pre-set threshold, automatic operation with humidistat has priority over manual operation, or rather the fan cannot be stopped via switch.

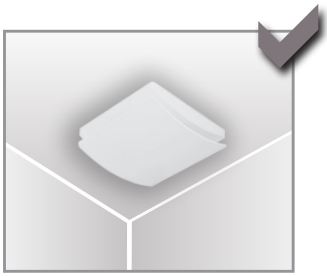
## INSTALLATION (Fig. 2)



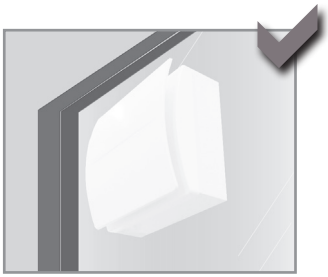
perimetrical exhausting



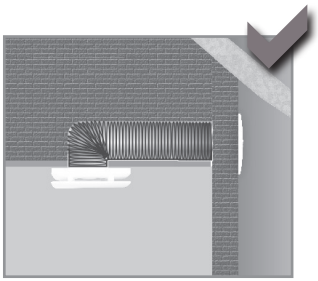
wall

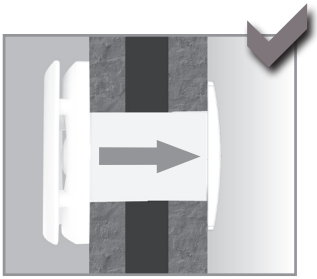


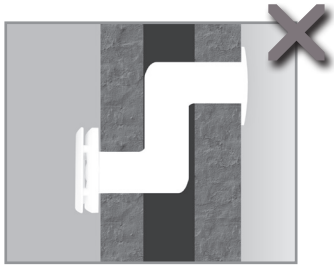
ceiling (accessory on demand)



window (kit on demand)

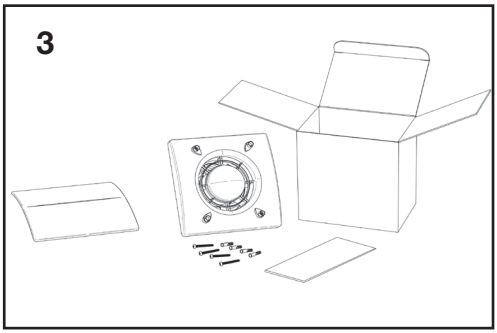


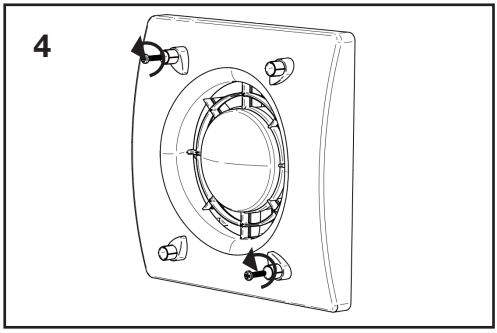


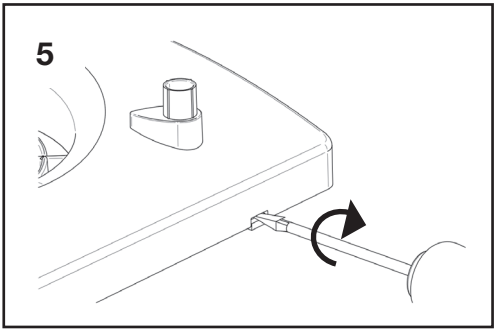


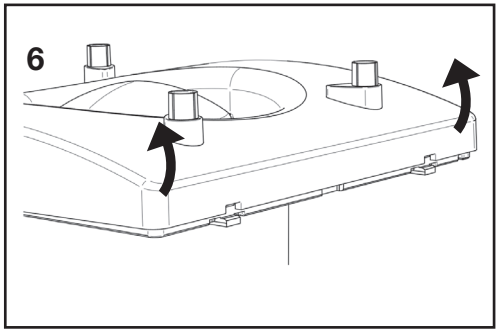
short length ducting (less than 1.5m)

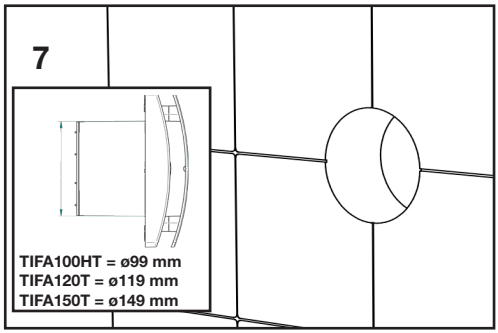
## MOUNTING AND ELECTRICAL WIRING

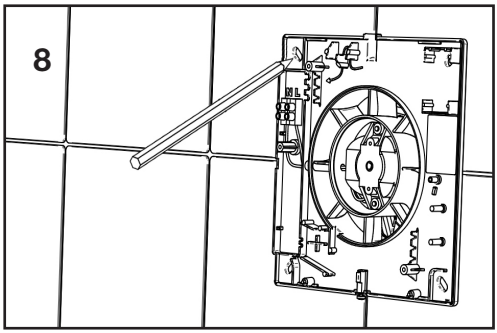


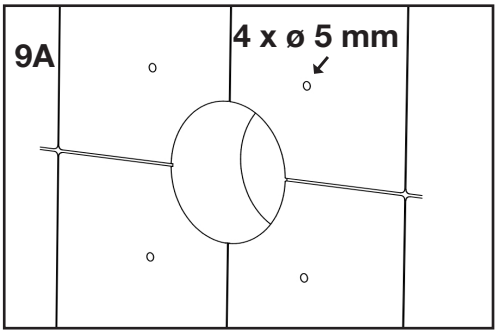



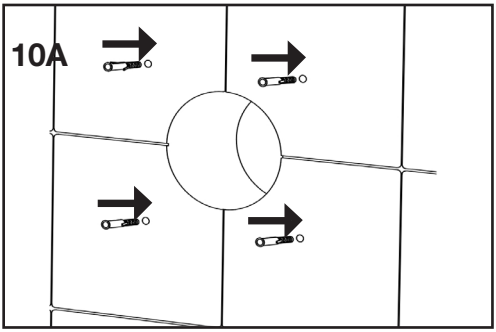
**SURFACE CABLE**

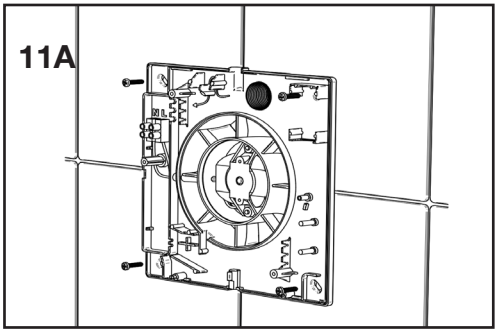
**H03VV-F ; H05VV-F**

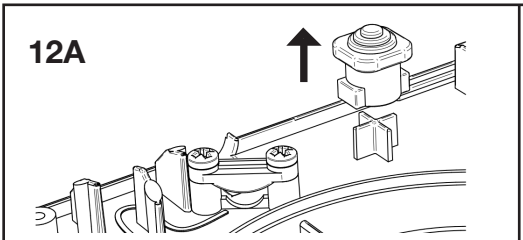
**BASE/STD** { 2 X 0,5 ÷ 1,5 mm² / 3 X 0,5 ÷ 1,5 mm²

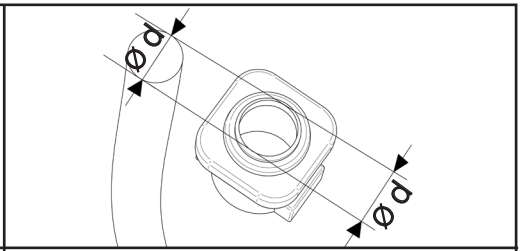
**T-HT** { 3 X 0,5 ÷ 1,5 mm² / 4 X 0,5 ÷ 1 mm²

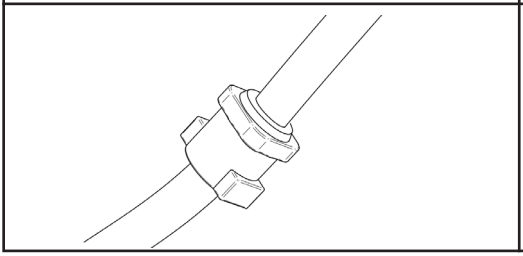


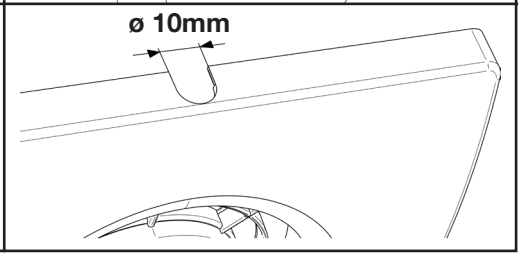



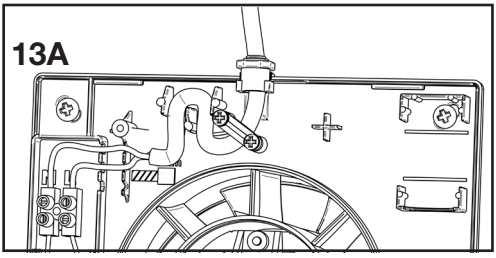





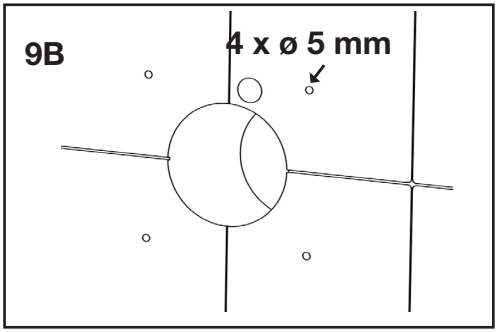
**RECESSED CABLE ENTRY**

**H03VV-F ; H05VV-F**

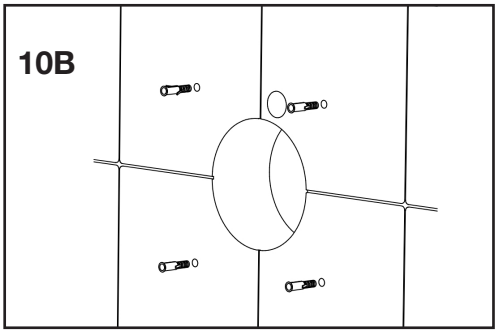
**BASE/STD** { **2 X 0,5 ÷ 1,5 mm²** / **3 X 0,5 ÷ 1,5 mm²**

**T-HT** { **3 X 0,5 ÷ 1,5 mm²** / **4 X 0,5 ÷ 1 mm²**

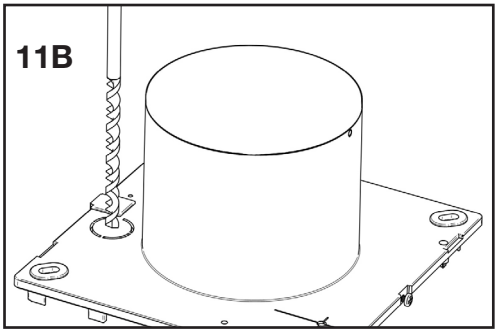
**9B**



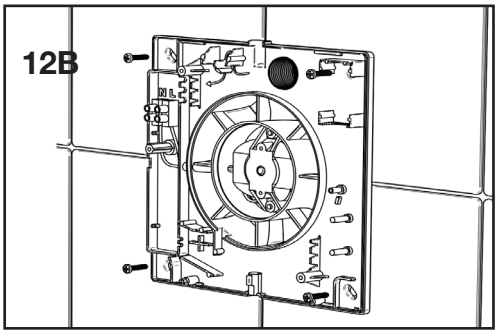

**10B**



**11B**



**12B**



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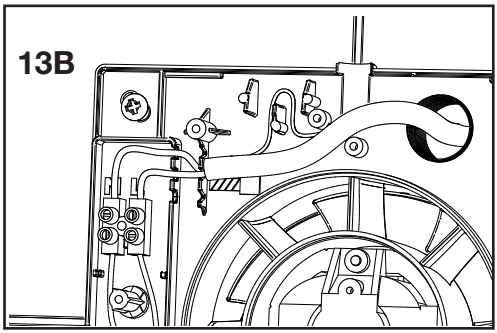
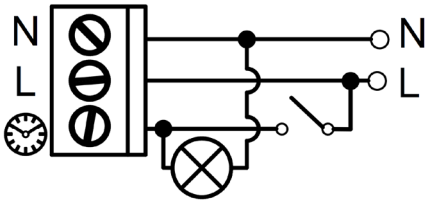
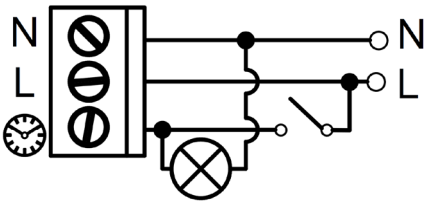


**14A**



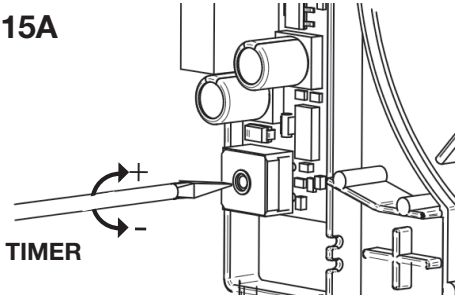

**TIFA120T - TIFA150T**

**14B**

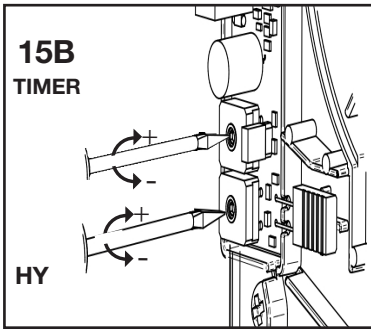



**TIFA100HT**

**15A**




**15B**

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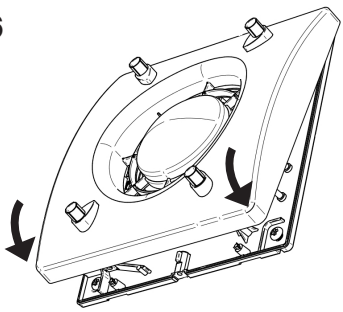

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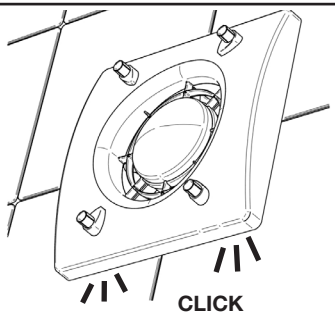


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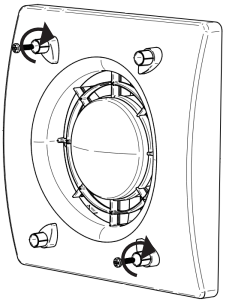

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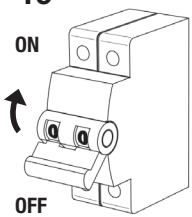


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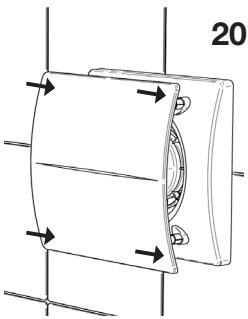
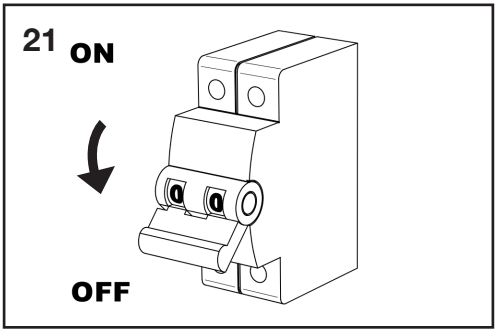
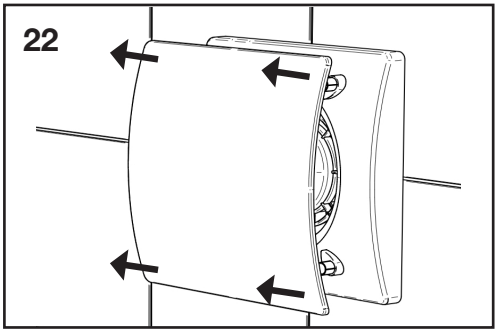


## MAINTENANCE / CLEANING

21




22



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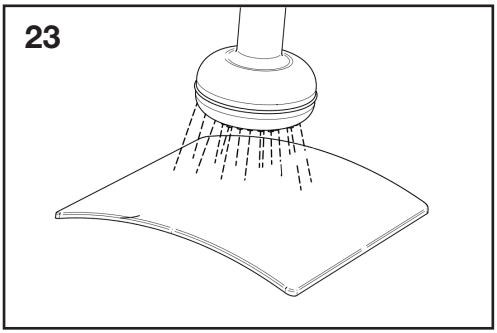

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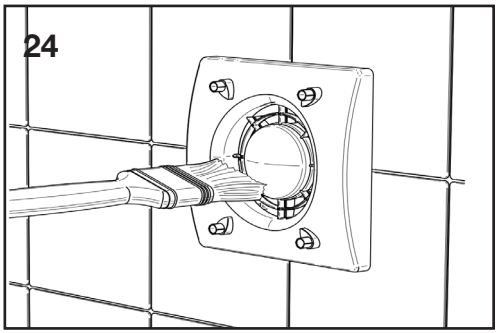
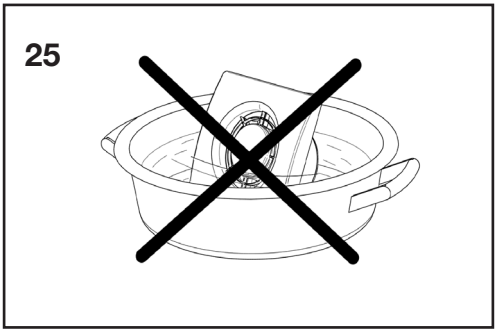


25



## DISPOSAL AND RECYCLING

Information on disposal of units at the end of life.
This product complies with EU Directive 2002/96/EC.
The symbol of the crossed-out dustbin indicates that this product must be collected separately from other waste at the end of its life. The user must, therefore, dispose of the product in question at suitable electronic and electro-technical waste disposal collection centres, or else send the product back to the retailer when purchasing a new, equivalent type device.
Separate collection of decommissioned equipment for recycling, treatment and environmentally compatible disposal helps to prevent negative effects on the environment and on health and promotes the recycling of the materials that make up the equipment.
Improper disposal of the product by the user may result in administrative sanctions as provided by law.

## STANDARD CONFORMITY

2014/35/EC Low Voltage Directive (LVD)
2014/30/EC Electromagnetic Compatibility (EMC),
in conformity with the following standards:
Electrical Safety: EN60335-1(2012)+A11+A13; EN 60335-2-80(2003)+A1+A2.
Electromagnetic Compatibility: EN 55014-1(2017); EN 55014-2(2015); EN 61000-3-2(2014); EN 61000-3-3(2013).

# ErP Directive - Regulations 1253/2014 - 1254/2014

| | | | | | |
|---|---|---|---|---|---|
| **a)** | Mark | - | TITON | | |
| **b)** | Model | - | **TIFA100HT** | **TIFA120T** | **TIFA150T** |
| **c)** | SEC class | - | C | E | E |
| **c1)** | SEC warm climates | **kWh/m2.a** | -9,6 | -2,7 | -3 |
| **c2)** | SEC average climates | **kWh/m2.a** | -24 | -10,4 | -10,7 |
| **c3)** | SEC cold climates | **kWh/m2.a** | -49,1 | -23,7 | -24 |
| | Energy label | - | No | | |
| **d)** | Unit typology | - | Residential - unidirectional | | |
| **e)** | Type of drive | - | single speed drive | | |
| **f)** | Type of Heat Recovery System | - | absent | | |
| **g)** | Thermal efficiency of heat recovery | **%** | N/A | | |
| **h)** | Maximum flow rate | **m3/h** | 83 | 140 | 253 |
| **i)** | Electric power input at maximum flow rate | **W** | 8,3 | 14,6 | 24,2 |
| **j)** | Sound power level ($L_{WA}$) | **dBA** | 47 | 55 | 63 |
| **k)** | Reference flow rate | **m3/h** | 83 | 140 | 253 |
| **l)** | Reference pressure difference | **Pa** | 10 | 10 | 10 |
| **m)** | Specific power input (SPI) | **W/m3/h** | 0,1 | 0,104 | 0,096 |
| **n1)** | Control factor | - | 0,65 | 1 | 1 |
| **n2)** | Control typology | - | Local demand control | Manual control (no DCV) | Manual control (no DCV) |
| **o1)** | Maximum internal leakage rate | **%** | N/A | | |
| **o2)** | Maximum external leakage rate | **%** | N/A | | |
| **p1)** | Internal mixing rate | **%** | N/A | | |
| **p2)** | External mixing rate | **%** | N/A | | |
| **q)** | Visual filter warning | - | N/A | | |
| **r)** | Instructions to install regulated grilles | - | check the instruction booklet | | |
| **s)** | Internet address for pre/disassembly instructions | - | www.titon.com | | |
| **t)** | Airflow sensitivity to pressure | **%** | N/A | 30 | 24 |
| **u)** | Indoor/outdoor air tightness | **m3/h** | 52 | 84 | 132 |
| **v1)** | AEC - Annual electricity consumption - warm climates | **kWh** | 0,9 | 1,4 | 1,3 |
| **v2)** | AEC - Annual electricity consumption - average climates | **kWh** | 0,9 | 1,4 | 1,3 |
| **v3)** | AEC - Annual electricity consumption - cold climates | **kWh** | 0,9 | 1,4 | 1,3 |
| **w1)** | AHS - Annual heating saved - warm climates | **kWh** | 11,9 | 6,3 | 6,3 |
| **w2)** | AHS - Annual heating saved - average climates | **kWh** | 26,2 | 14 | 14 |
| **w3)** | AHS - Annual heating saved - cold climates | **kWh** | 51,3 | 27,3 | 27,3 |

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