

INSTRUCTION MANUAL

CENTRIFUGAL ROOF FAN TN SERIES



WARNINGS

In case the impeller should be removed, verify the direction of rotation after reassembling it. Concerning the impeller, use only original spare parts of the company. In case of replacement of the electric motor, carefully check that the spare part has the same characteristics of the one replaced. In particular, verify that the rotation speed is the same (number of electromagnetic polarities). A rotation speed that is higher than the rotation speed of the project can cause the detachment of part of the impeller, with the risk of ejection of fragments and danger for people or things nearby.

During the first activation, and after every replacement carried out on the electric motor, verify that the current draw falls within the range of values shown on the engine nameplate.

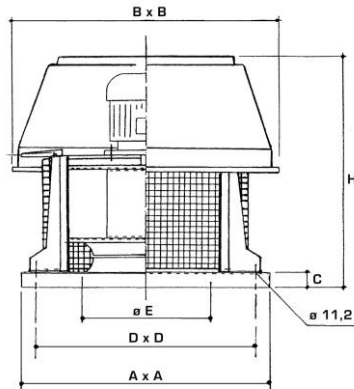
ATTENTION:

If the machine is installed far from the control point, it is mandatory to provide a unipolar switch in the vicinity of the machine (this accessory is available on request).

For installation in cold areas and during the winter, avoid starting the impeller in case of ice formation on the blades. Before starting work with the rotating parts of the machine or disassembling the safety guards, make sure that the fan is not running, that it cannot be put into operation, and that the impeller is stationary.

All the operations in this manual must be carried out by qualified personnel, on pain of warranty termination and decline of any liability by Aspirnova Industry S.r.l.

MAIN STANDARD DATA PRODUCTION



TN	A x A	B x B	C	D x D	ø E	H	WEIGHT TN [kg]
05	400	470	40	350	200	460	14
20	400	470	40	350	250	460	18
30	560	595	40	460	300	560	25
40	560	595	40	460	350	560	30
50	710	800	40	610	400	620	40
60	710	800	40	610	450	620	48
70	900	1.000	40	800	500	790	57
80	900	1.000	45	800	550	830	76
90	900	1.000	45	800	600	870	96
100	900	1.000	45	800	600	880	110

The technical data can be changed by the House without notice



SAFETY STANDARD

The general safety standard must be scrupulously respected during all the operation and maintenance phases. Failure to comply with these rules, could make the systems and the safety requirements at the roof fan design and construction stage inefficient.

Aspirnova Industry S.r.l. disclaims all liability for damage or injury resulting from non-compliance with the safety standard below.

ALL RIGHTS RESERVED: *The information in this instruction manual may be not used for purposes different from those for which they were drawn up. This publication and the documents provided with the product may not be reproduced neither in part nor in whole without a written permission. Illustrations and schematic drawings of the roof fans have to be taken as purely guideline indication.*

This manual can be modified by the manufacturer without notice.

- ✓ The roof fan must be installed only and exclusively by qualified and trained personnel
- ✓ The user must ensure that all the instructions reported on this manual are scrupulously and unequivocally followed
- ✓ Every operation that interferes with the safety equipment is a risk for the user
- ✓ Maintenance and repair works must be carried out by trained personnel and in compliance with the instruction in this manual
- ✓ Before carrying out any maintenance and/or adjustment, dissect the roof fans from its power source
- ✓ Any changes to the roof fans must be carried out only and exclusively by personnel authorized by the house builder
- ✓ Do not expose the roof fan to water jets
- ✓ In accordance with the 2006/42/CE directive, it is forbidden to operate the fan without safety net in suction and delivery if it is not properly ducted.



GENERAL INFORMATION

All the roof fans are controlled, balanced and tested before shipment. In case of signs of damage upon receipt, inform the conveyor and send the product to our headquarters. Avoid using or repairing the damaged product. Our company is not liable for any damages caused by the transport. **Read and follow carefully these instructions for a proper installation and a safe use of our machines.** Installation operations and maintenance of the roof fans must be carried out only by expert personnel. Moreover, check the compliance of the installation and any directive, codes, and laws in force.

GENERAL DESCRIPTION

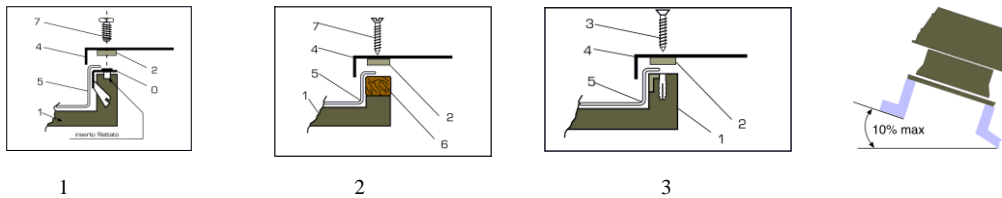
TN roof fans are appropriate for ventilation on rooms where air is clean, and the temperature is between -20 °C and +60 °C. All the roof fans are suitable for direct start at full voltage. Do not use the roof fans in aggressive environments if they have not been previously processed with a corrosion protection. TN roof fans are suitable for the functioning without ducting, and they are used for the ventilation of large volumes of air.

HANDLING

TN roof fans are packed and provided on shrink-wrapped pallets, and they cannot be stacked during transport or storage. Adapt the handling equipment to the weight of the machine (from 15 to 115 kg).

ROOF FAN INSTALLATION

The roof fan can be lifted by connecting a sling to the eye bolts on the dome.

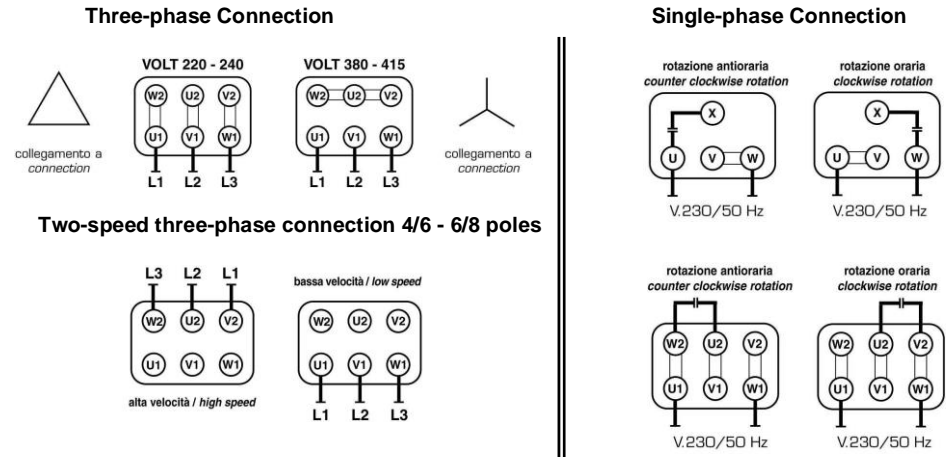


- 1) **Fixing to the support structure through counter base (REF. Fig 1):** fix the counter base to the support structure; fix the base of the roof fan to the counter base with bolts with a diameter not exceeding 10 mm.
- 2) **Direct fixing to the support structure with screws (REF. Fig. 2):** fix the base of the roof fan to the support structure with screws with a diameter not exceeding 10 mm.
- 3) **Direct fixing to the support structure with expansion plugs (REF. Fig. 3):** fix the base of the roof fan to the support structure with expansion plugs with a diameter not exceeding 10 mm.

0	Counter base
1	Masonry
2	Anti-vibration sheath
3	Expansion screws
4	Base of the roof fan
5	Waterproof sheath
6	Wooden curb
7	Screws or bolts

ELECTRIC WIRINGS

Connection diagram to the external terminal block:



COMMISSIONING

Put the roof fan into operation and verify that: 1) the impeller rotation does not cause sensitive vibrations that compromise the stability of the impeller or the electric motor; 2) the amperage value fall within those on the nameplate.

In case of problems, stop immediately the machine and verify again the operations previously described. During the first hours of functioning, verify several times the clamping and the proper functioning of the machine.

ADJUSTING

If the roof fan was combined with a voltage regulator/speed, ensure that the scope of the latter is adequate to the power absorbed by the engine sump.

MAINTENANCE AND REPAIRS

Before any intervention, make sure that the electric motor is disengaged, and it cannot be driven accidentally.

Check periodically the clean condition of all the components of the machine (mainly motor and impeller) with a frequency depending on the working conditions of the roof fan.

Check the clamping of all the screws and bolts, and mainly those of the hub and the impeller and those that fix the motor to its support.

Perform this operation after the first 100 hours of functioning and then, about every 6 months of continuous operation. Check periodically that the impeller blades are deprived of elements that could compromise their aerodynamic efficiency and the balance of the machine (with the risk of damaging the engine bearings) and, eventually, remove them. Moreover, remove any fouling and dust deposition from the electric motor to allow an adequate cooling and prevent damages.

Check periodically that the ventilation system is deprived of fouling and clogging that could lead the fan to work in suboptimal conditions, with the risk of stalling.

After maintenance or repair operation, and before mounting the electric motor on the fan, make sure that every component of the machine is in perfect condition.

During the periodic maintenance of the roof fan, check the state of conservation of the bolts and all the other components.

In case of extraordinary maintenance, it is advisable to remove the fan from its seat; appropriate equipment should be used to avoid any damages to the machine.