



NALMF

Cylindrical Cased Mixed Flow Fans

Installation and Maintenance

Introduction

The NALTMF range of in-line cylindrical cased mixed flow fans are constructed with a rigid galvanised steel case.

The case has pre-drilled flanges and is finished in black polyester powder coat.

The high efficiency mixed flow design impeller is manufactured in aluminium or high density polymer.

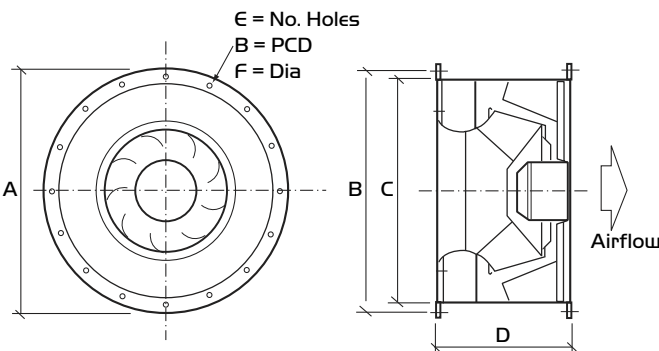
The external rotor motors with 'sealed for life' bearings are maintenance free. Class F insulation in IP54 rating. Suitable for operating in atmospheres up to 95% RH and ambient temperatures up to 40°C.

1.0 Handling

Always handle the fans carefully to avoid damage and distortion. Care should be taken to ensure that any slings used for lifting purposes do not damage or pass through the impeller. Always check the unit weight on rating label before lifting.

2.0 Dimensions (mm) & Weights (kg)

Fig. 1.



Fan Code	A	B	C	D	E	F	Weight
NALMF350-4I	567	541	503	310	12	9.5	17 Kg
NALMF400-4I	636	605	560	340	16	11.5	23 Kg
NALMF450-4I	709	674	635	420	16	11.5	35 Kg
NALMF500-4I	785	751	711	450	16	11.5	63 Kg
NALMF560-43	872	837	797	490	24	11.5	63 Kg

3.0 Installation

Installation must be carried out by a competent person in accordance with the appropriate authority and conforming to all statutory and governing regulations i.e. IEE, CIBSE, COSHE etc.

The units can be installed at any angle and are suitable for internal or external use. The fans are designed to be bolted into proprietary ductwork and pre drilled flanges are incorporated. Anti-vibration mountings are recommended to minimise noise and vibration.

The method of mounting used is the total responsibility of the installer.

All duct connections must be airtight to prevent any loss of performance.

4.0 Technical Data

Fan Code	Phase	RPM	kW	Amps	
				f1c	sc
NALMF350/4I	1	1390	0.31	1.35	3.7
NALMF400/4I	1	1280	0.52	2.2	5.5
NALMF450/4I	1	1330	0.96	4.3	9.6
NALMF500/4I	1	1310	1.45	6.1	15
NALMF560/43	3	1350	2.4	4.3	20

5.0 Electrical

IMPORTANT

Isolation - Before commencing work make sure that the unit, and any control are electrically isolated from the mains supply.

Motor

External rotor motor, has sealed for life bearings and class F insulation. A thermal contact switch is incorporated to prevent damage due to overheating.

Connection Details

Check that the fan details on the rating plate correspond with the supply voltage and frequency.

The fan unit incorporates a terminal box on the casing exterior. Units for external use require weatherproof conduit and glands.

Motors are designed for Direct On Line starting.

Motor overloads should be set to the full load current on the fan rating label.

Supply fuses should be H.R.C. type.

Start up Procedure

Note single phase rotational direction is set at works and should NOT be altered. Equipment should be run for approximately 30 minutes to ensure correct operation.

If a fault occurs, switch off.

Do not restart until fault has been rectified.

Electrical Note - Because the run and start currents depend upon the duty and associated duct work of an individual unit, the values quoted in the table are nominal.

Run currents will be exceeded if the unit is operated beyond the operating curve shown in the performance catalogue.

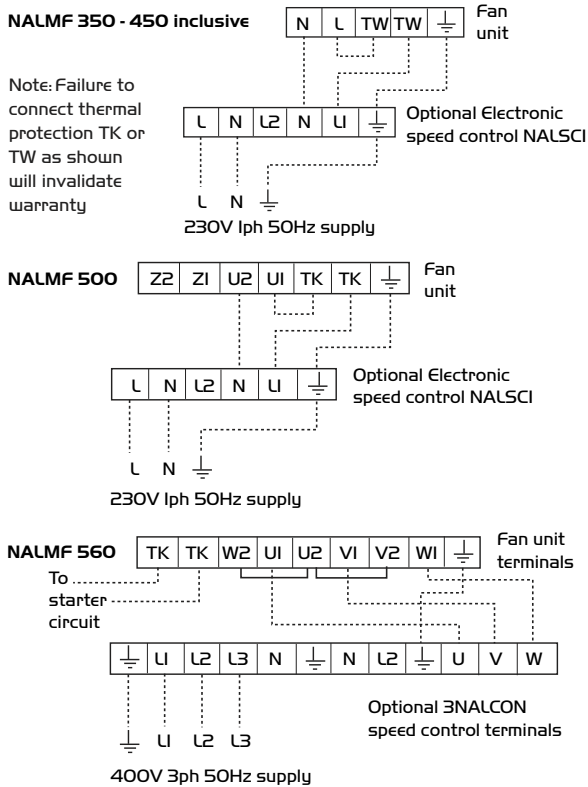
Wiring diagrams shown overleaf.

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6.0 Electrical Wiring

Fig. 2.



7.0 Maintenance

Electrically isolate unit before commencing any work. Usage and conditions will dictate frequency of maintenance. We recommend a thorough inspection and cleaning three months after commissioning and, dependant on how the fan is found at least annually thereafter.

Fans and systems should be maintained in accordance with the HVCA Standard Maintenance Recommendations for Mechanical Services in Buildings Volume II Ventilation and Air-conditioning.

Do not use a high pressure cleaner (steam jet) or any solvents for cleaning purposes.

Do not immerse the unit in water.

Check all parts for security and general condition. Ensure the impeller rotates freely.

8.0 Warranty

The unit has a one year warranty. The warranty starts from the date of delivery and covers faulty materials or workmanship and includes parts and labour.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuaire International Sales office for further details.

8.0 After Sales Enquiries

Nuaire can assist you in all aspects of service. Our service department will be happy to provide any assistance required.

Telephone 02920 858 400

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.