



# NA X

12V & 230V, Continuous 2 Speed Slimline Axial Fans

## Installation Manual



IPX4



### 1.0 SAFETY INFORMATION

- The provision of the electrical supply and the connection of the unit to the mains must be carried out by a qualified electrician.
- Isolate from power supply before removing any covers. During installation / maintenance ensure all covers are fitted before switching on the mains supply.
- All-pole disconnection from the mains as shown in the wiring diagram must be incorporated within the fixed wiring and shall have a minimum contact separation of 3mm in accordance with latest edition of the wiring regulations.
- Ducting must be securely fixed with screws to the spigot to prevent access to live parts. Duct runs terminating close to the fan must be adequately protected by suitable guards.
- 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.
- This appliance should not be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning the safe use of the appliance by a person responsible for their safety. Children shall not play with the appliance. Cleaning and user maintenance shall not be carried out by children.

#### 1.1 Hazard Symbols



##### GENERAL WARNING

Signifies a general warning regarding hazard specified by supplementary information.



##### ELECTRIC SHOCK

This unit must be completely electrically isolated before any panels are removed. Check mains supply and control connections.



##### ROTATING PARTS

This unit contains fast moving rotational parts which may start automatically. It is the sole responsibility of the installer to adequately guard these components.



##### REFER TO INSTRUCTION MANUAL

Read and understand the installation and maintenance manual before installing, operating or maintaining this product.

### 1.2 Important Information

This manual contains important information on the safe and appropriate assembly, transport, commissioning, operation, maintenance, disassembly and simple troubleshooting of the product.

While the product has been manufactured according to the accepted rules of current technology, there is still a danger of personal injury or damage to equipment if the following general safety instructions and the warnings contained in these instructions are not complied with.

- **Read these instructions completely and thoroughly before working with the product.**
- **Keep these instructions in a location where they are accessible to all users at all times.**
- **Always include the operating instructions when you pass the product on to third parties.**

### 1.3 Personal Protective Equipment

The following minimum Personal Protective Equipment (PPE) is recommended when interacting with Nuaire product:

- **Protective Steel Toed Shoes** - when handling heavy objects.
- **Full Finger Gloves (Marigold PU800 or equivalent)** - when handling sheet metal components.
- **Semi Fingerless Gloves (Marigold PU3000 3DO or equivalent)** - when conducting light work on the unit requiring tactile dexterity.
- **Safety Glasses** - when conducting any cleaning/cutting operation or exchanging filters.
- **Reusable Half Mask Respirators** - when replacing filters which have been in contact with normal room or environmental air.

Nuaire would always recommend a site specific risk assessment by a competent person to determine if any additional PPE is required.

## 2.0 INTRODUCTION

These IPX4-Splashproof fans have been specifically designed to ventilate small rooms such as toilets, bathrooms, cloakrooms and kitchens etc. and can be installed on wall, ceiling or panel.

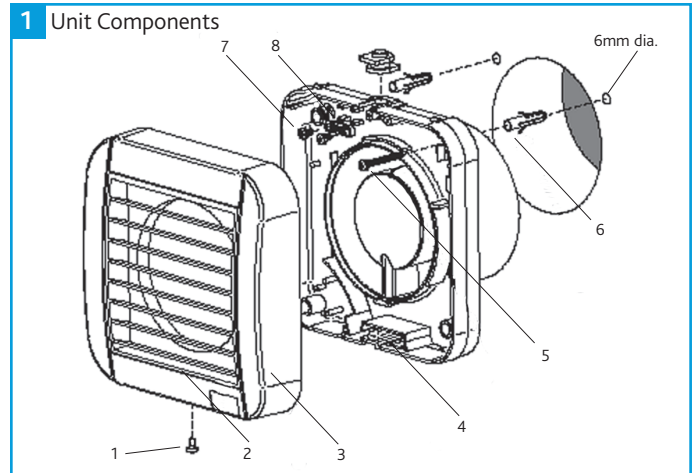
The units extract directly to outside or through a short length of ducting.

Unit Codes	Operation Type	Weight (Kg)
NA100XPC	4" Axial continuous low duty with boost facility via pull cord / remote switch operation.	0.5
NA100XPC-12	12V version of 4" Axial continuous low duty with boost facility via pull cord / remote switch operation.	0.5
NA150XPC	6" Axial continuous low duty with boost facility via pull cord / remote switch operation.	1.5

## 3.0 MECHANICAL INSTALLATION

Installation must be completed by competent persons, in accordance with good industry practice and should conform to all governing and statutory bodies i.e. IEE, CIBSE, etc.

This product should not be used in an ambient temperature higher than 40°C (104°F) and should not be exposed to atmospheric agents (rain, sun, snow, etc.). The product or any part of it should not be placed in water or other liquids.



### 3.1 Component Key

- |                       |                       |
|-----------------------|-----------------------|
| 1. Front Fixing Screw | 5. Wall Fixing Screws |
| 2. Front Grille       | 6. Wall Plug          |
| 3. Front Cover        | 7. Cable Clamp Screws |
| 4. Motor Fan Assembly | 8. Cable Clamp        |
|                       | 9. Cable Grommet      |

### 3.2 Surface Mounting

Remove the fan from the box, taking care to dispose of the packing material properly. Check the location of existing wiring for ease of connection. For optimum performance site the fan a minimum of 2.3m above ground level.

In the wall or ceiling, cut a hole as follows:

- NA 100X fans - 100mm Ø (taking care to allow any necessary space for ducting).
- NA 150X fans - 150mm Ø - for through wall installation.
- NA 150X fans - 156mm Ø - for installation using a wall liner or telescopic ducting.

For any other wall or ceiling installation check sizes before cutting the hole. **It is the installer's responsibility to use the appropriate core cutter to obtain the correct hole diameter.**

Dismantle the fan:

- Remove the front cover (3) by unscrewing front fixing screw (1).
- Using the motor fan assembly (4) of the fan as a template, mark the hole drilling positions to fix the fan to the wall or ceiling N.B use the holes already knocked out in the top right and bottom left corners of the back of the motor fan assembly.
- Drill the 6mm dia holes.
- Using the wall plugs and long screws provided, fix the motor fan assembly (4) to the wall/ceiling.

**Before fixing the fan to the wall**, decide whether to have the cable entering the fan through the knocked-out hole on the top of the motor fan assembly (4) or whether through the back of the motor fan assembly (4). In the first case the included cable clamp will need to be used. In the second option the cable entry hole will need to be knocked out.

Connect to electricity supply via a double pole switch of a suitable size, with contact openings of at least 3mm.

Fix back the front cover (3) of the fan.

For window installation (with optional window kit) see instructions on document 671737.

## 4.0 ELECTRICAL INSTALLATION

**Isolation - Before commencing work make sure that the unit is electrically isolated from the mains and switched live supply.**

### 4.1 Electrical Information

Unit Codes	m <sup>3</sup> /hr	W	dBA @ 3m
NA100X	95	11	40
NA150X	280	26	49

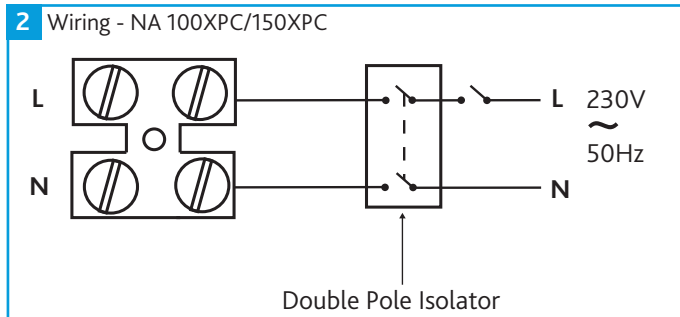
It is recommended that the installation be carried out by a qualified electrician. All electrical connections must comply with current IEE wiring regulations. The fan is a fixed appliance, and the electrical supply must therefore be by a fixed wired and fused (3 amp) spur incorporating a double or triple pole switch with contact openings of at least 3mm. Use twin conductor cable of at least 1mm<sup>2</sup> in section (Figure 9).

The fan is double insulated and does not require earthing. The fan complies with current electrical safety regulations, including Electromagnetic Compatibility (EMC) Directive 2014/30/EU and Low Voltage Directive (LVD) 2014/35/EU.

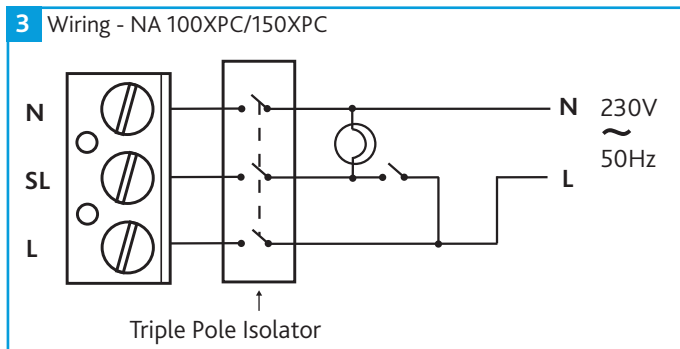
The fan must not be used as a switch for water heaters, stoves etc. The printed circuit board in these fans has been protected to make it compatible with the majority of fluorescent fittings available on the market today. However, it is impossible to be aware of all new products introduced. We suggest, therefore, that you contact your supplier to establish the compatibility of any fluorescent fittings you intend to use.

### 4.2 Wiring Diagrams

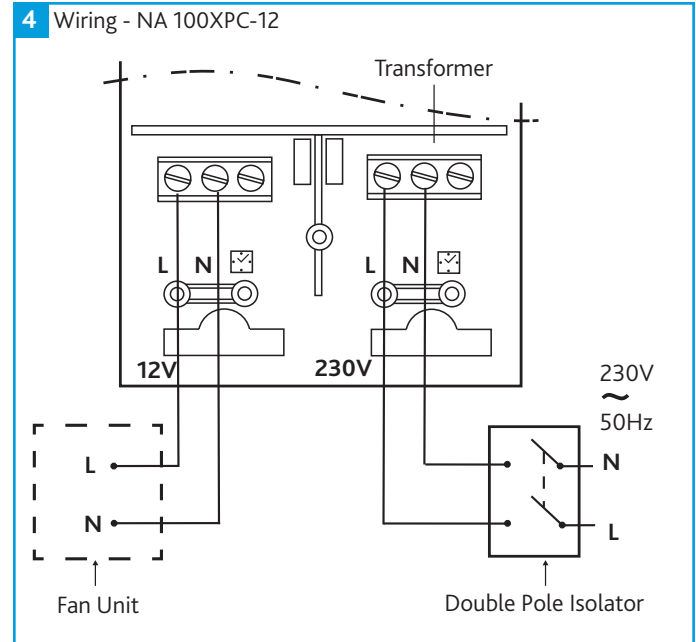
#### 4.2.1 NA 100XPC/150XPC with Integral Cord



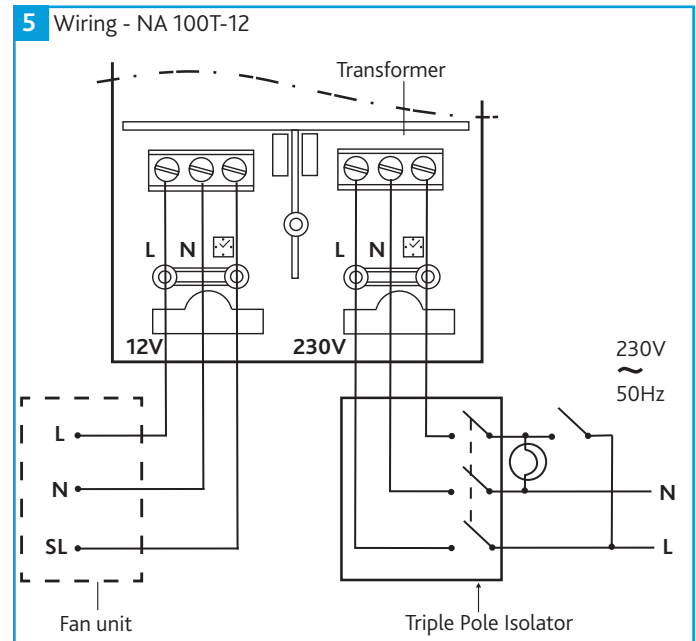
#### 4.2.2 NA 100XPC/150XPC



#### 4.2.3 NA 100XPC-12 with Integral Cord



#### 4.2.4 NA 100XPC-12 with Remote Switch (Pull-Cord Switch Must Be OFF Before Removing Cord)



## 5.0 MAINTENANCE

It is important that maintenance checks are recorded and that the schedule is always adhered to, in all cases, the previous report should be referred to.

### 5.1 Annually

- Thoroughly inspect the unit and its components for corrosion, acting immediately to treat/restore any damaged areas. The front cover can be removed and cleaned with water and a mild detergent using a soft cloth and the motor fan assembly can be cleaned with a dry brush or dry cloth. Ensure the unit does not come into contact with any kind of liquid or solvent.
- All electrical terminals within the unit should be tightened.

## 6.0 WARRANTY

The 1 year warranty starts from the day of delivery.

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 Nuair International Sales office for further details.

**Failure to maintain the unit as recommended will invalidate the warranty.**

## 7.0 END-OF-LIFE AND RECYCLING

Where possible Nuair use components which can be largely recycled when the product reaches its end-of-life:

- Fans, motors, controls, actuators, cabling and other electrical components can be segregated into WEEE recycling streams.
- Sheet metal parts, aluminium extrusion, heating/cooling coils and other metallic items can be segregated and fully recycled.
- EPP, plastic ducting, nylon corner pieces, plastic heat exchangers, packaging material and other plastic components can be segregated into mixed plastic and widely recycled.
- Cardboard packaging, wood, used filters and other paper components can be largely recycled or fully processed in energy from waste centres.
- Remaining Items can be further segregated and processed in accordance with the zero waste hierarchy. Please call After Sales Support for further information on items not listed above.

**Ensure that Nuair product is made safe from any electrical / water / refrigerant supplies before dismantling commences. This work should only be undertaken by a qualified person in accordance with local authority regulations and guidelines, taking into account all site based risks.**

## 8.0 AFTER SALES

For technical assistance or further product information, please contact the After Sales Department.

**Telephone 02920 858 400**  
**[aftersales@nuaire.co.uk](mailto:aftersales@nuaire.co.uk)**

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.