

dMEV+H

Decentralised Mechanical Extract Ventilation
2 Speed Axial Extract Fan with Humidity Enabler

Installation Guide



The EMC Directive
2014/30/EU
The Low Voltage
Directive
2014/35/EU

1.0 Introduction

The dMEV+H is a 2 speed axial extract fan has been designed for continuous ventilation for kitchens or wet rooms and should be installed using 100mm dia. ducting.

Speed settings are fixed at either Low Speed and Low Boost or High Speed and High Boost (See Section 9.0 for Details).

As a default, the fan is set to achieve low speed (6 l/s – wet rooms) to adjust to high speed (8 l/s - kitchen) refer to section 9.0.

2.0 Handling

Always handle the the fan carefully to avoid damage and distortion.

4.0 Spacer installation (if required)

3.0 Installation

The installation must be carried out by competent personnel in accordance with the appropriate authority and conforming to all statutory and governing regulations i.e. IEE, CIBSE, CCHSE, HVCA etc.

The unit is for indoor use only, and is suitable for through wall and ceiling installation. Mount on a secure, vibration free surface away from any direct source of heat and areas where it would be subjected to water spray.

The maximum permissible ambient temperature is 50°C.

dMEV+H Box Contents

Fan unit (Including 2 part inlet grille and 2 fixing screws), wiring grommets (2 off), a cable clamp c/w screws and spacer.

Figure 1.

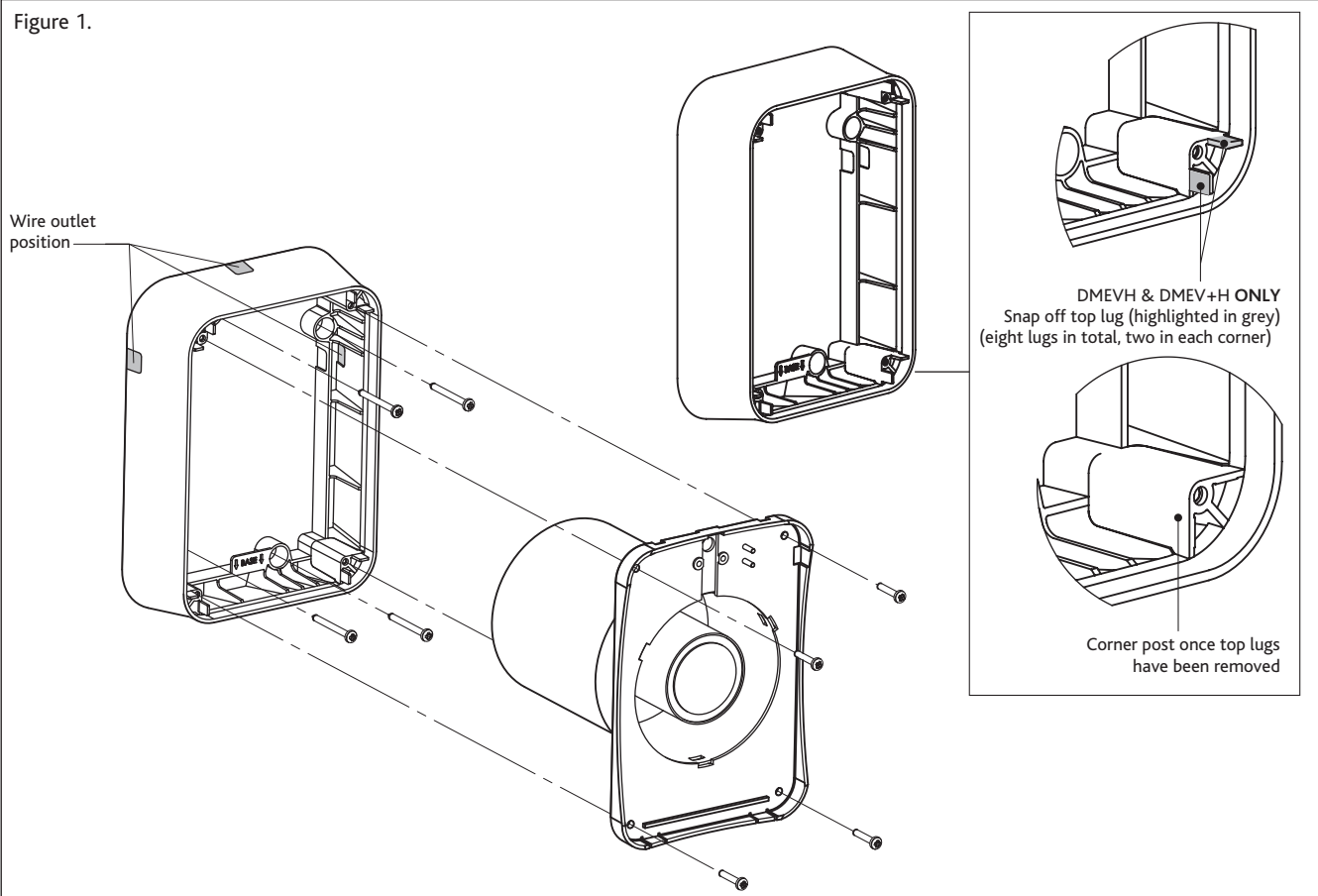


Fig. 1 Spacer Installation Having established the mounting position for the unit, mark the centres of duct hole and four fixing points using the template provided on page 5.

Core cut the centre duct hole, drill and plug mounting holes.

When using surface mounted cabling select the most appropriate cable entry position and carefully trim out the inner and outer cable cut-outs.

Secure spacer to the wall / ceiling (fixings supplied by others). Note: use wood screws not countersink screws to avoid distorting the skirt.

Chased in Cable:

Feed the cable through the spacer to pass through back plate for when installing fan.

5.0 Wall / Ceiling Installation

a) Placing the Fan Unit.

Having established the mounting position for your fan, you need to cut a suitable size hole through the Wall or Ceiling to accommodate the 100mm dia. Spigot on the fan unit. Place the fan unit into the hole and mark up 4 fixing points (4 corners of fan unit rear section, shown in fig 2a).

Drill marked up holes and add suitable fixing plugs (Supplied by others).

b) Prepare wiring for the fan.

Wiring can be fed through either the back or the right hand side of the fan unit rear section.

c) Fitting the Fan Unit.

Insert 100mm dia. ducting (Pre-cut the duct length to suit the wall/ceiling that duct is going through) through the hole previously cut, then insert the fan unit into the duct and secure using suitable fixings (Supplied by others). Ensure that the wiring is fed through the fan unit rear section at the chosen exit point.

d) Wiring the Fan Unit.

Please revert to section 8.0 for full wiring diagram.

Ensure supply cable is clamped inside the unit (Clamp and Screws supplied).

e) Setting the Humidity Trigger set point.

Please revert to section 10.0 for Set point options.

f) Finishing the Install.

Once the unit has been wired and humidity trigger set point has been selected the front facia of the fan unit can be fitted.

Once cover and rear section are slotted together, fit the 2 fixing screws (supplied) to the bottom face, fig. 2b.

Figure 2a.

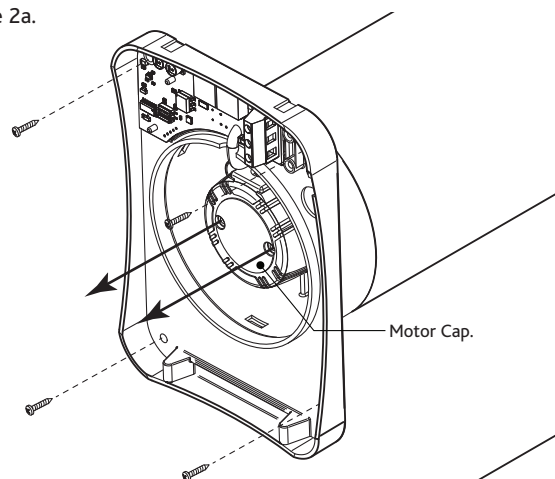
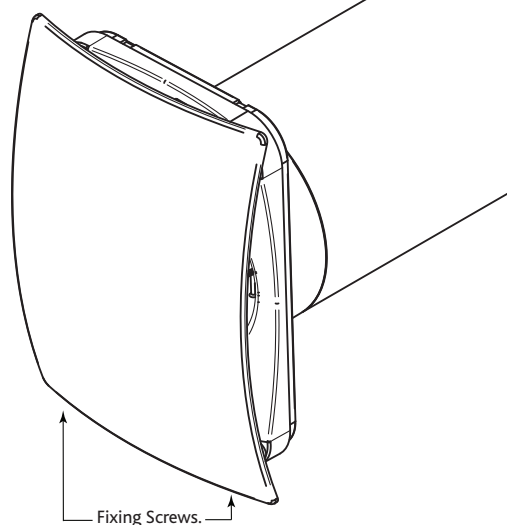


Figure 2b.



6.0 Dimensions

Figure 3. dMEV+H fan unit.

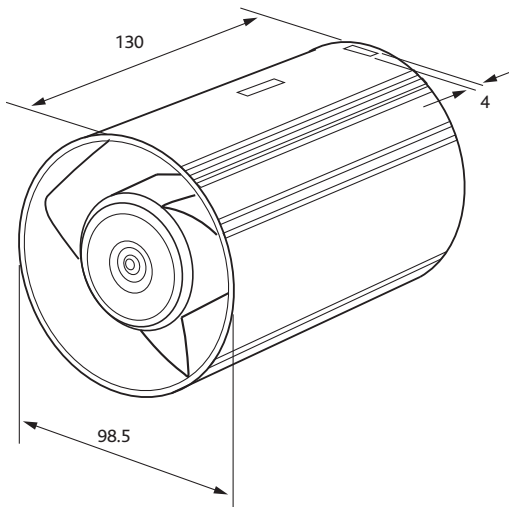


Figure 4. dMEV+H fan and room grille.

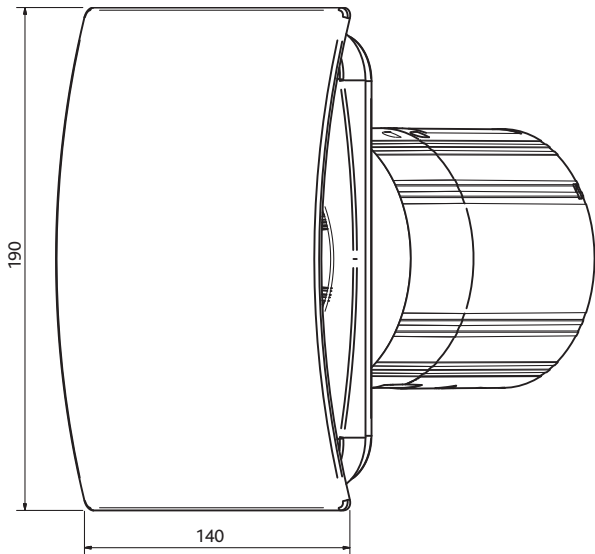


Figure 5. dMEV+H fan unit rear section.

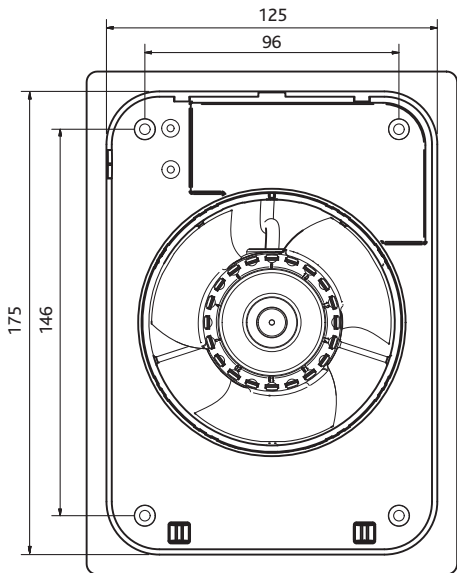
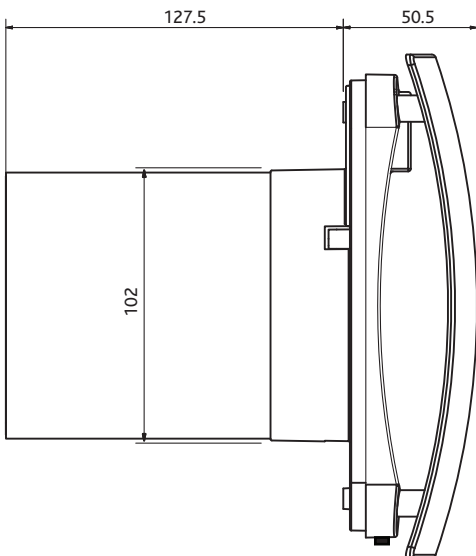


Figure 6. dMEV+H fan and room grille side section.



7.0 Electrical

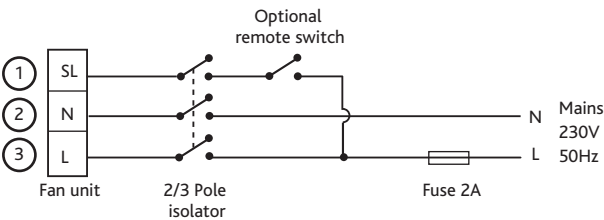
Voltage:	230V
Frequency:	50Hz

NOTE: In the event of voltage transients or other EMC interference on the mains supply the fan may go into boost for 3 seconds or possibly for the run on time period. Operation will be restored to normal after the interference stops. If severe EMC interference causes the fan to go into permanent boost the mains power should be reset to restore functionality. If high levels of RF interference causes the fan to go into boost during the period of RF interference EMC mitigation procedures may be required. Contact Nuaire service dept for further support.

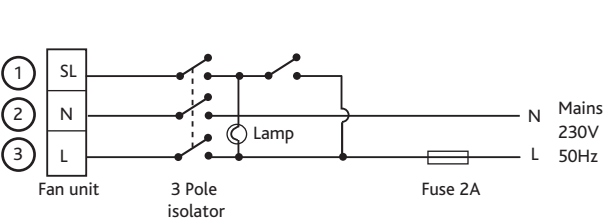
8.0 Wiring

Figure 7.

Unit serving bathroom or kitchen (optional boost)



Unit serving bathroom (via light switch)



9.0 Speed Settings

The dMEV+H is pre-set to achieve 6 l/s Continuous and 13 l/s on boost. This can however be changed to 8 l/s Continuous and 18 l/s on boost. To change these speed setting you will need to change the

jumper position within the fan unit (fig. 8). To do this you will need to remove the 2 fixing screws on the motor cap (shown in fig 2a).

Figure 8.

Low

High

Unit is fixed speed.
Select between either Low or High speed with the jumper position.

i.e. Bathroom installation Low speed (Pre-set factory position).

SL

L

N

Speed Setting:	Low Continuous	Low Boost	High Continuous	High Boost
Air Flow:	6 l/s	13 l/s	8 l/s	18 l/s

10.0 Humidity Set Point

The dMEV+H is pre-set to boost when it senses a relative humidity (%RH) of 80% however this can be changed to suit the installation. To do this you will need to access the PCB within the unit.

On the PCB you will need to alter the humidity switch (fig 9a) configuration to suit the configurations in (fig 9b).

Figure 9a.

Humidity sensor

Humidity switch

Figure 9b.

ON ADE02

1

2

230V Switch live

ON ADE02

1

2

230V Neutral

ON ADE02

1

2

230V Live

60% RH

70% RH

80% RH

90% RH

Switch actuator

11.0 Maintenance

The fan unit does not require any maintenance. However, for optimum performance, it is advisable to remove any accumulated dust with a low power vacuum cleaner.

Note: Installation and Maintenance of the equipment must be as directed in the instructions provided with the unit.

12.0 Warranty

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining 4 years covers replacement parts only.

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.

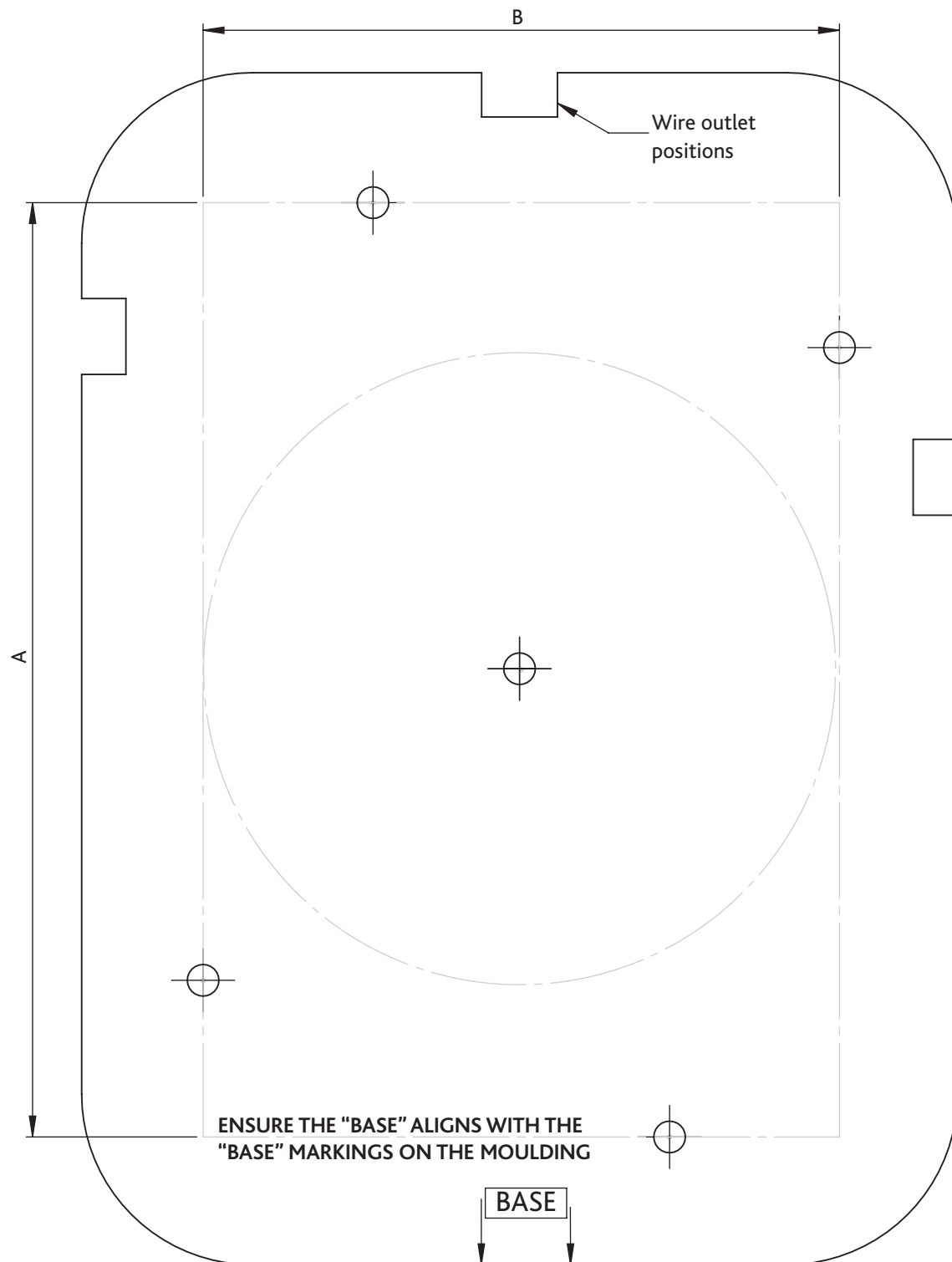
13.0 After Sales

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

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.

14.0 Skirt Spacer Template



Note, if printing document check scale.

A = 147.8mm

B = 100.7mm