

UNIT SPECIFICATION

The Unit shall be configured and arranged as detailed on the drawings and in accordance with the schedule of equipment.

Units have a patented 'Floating Fan' technology incorporating an inner casing which is held inside an outer casing by AV mounts, ensuring any vibration is isolated. This technology eliminates the requirement for additional AV mounts.

The units are manufactured in two case lengths – Standard or Type 'A' Extended. Units shall be manufactured from acoustically lined, heavy gauge, corrosion resistant aluzinc and tested to leakage class 'L2'.

The unit will be manufactured to provide a low height solution to enable it to be located in low depth ceiling and floor voids. The units shall have a maximum depth of 233/300/345/370/410/455/500mm (models DE1-7). For ease of installation the unit shall be supplied complete with 4 mounting brackets for inclusion into a drop rod mounting system.

Impellers shall be of high efficiency, performance and sound optimised backward curved design.

The unit shall be fitted with ErP 2015 rated, low energy, high efficiency IP54 EC motorised fans providing low specific fan powers and stepless speed control without tonal noise generation. Fan/motor assemblies have sealed for life bearings with an anticipated working life of 70,000 hours (L10) and shall be suitable for single phase supply. Units are suitable for operation in ambient temperatures of up to 60°C (unit sizes 1 - 5) and up to 40°C (unit sizes 6 - 7).

The unit and ancillaries shall be of the DAVE Extract type as manufactured by Nuair Ltd

INSTALLATION

By the appointed contractor. The DAVE extract fan can be installed internally or externally as standard without the requirement for additional weather protection. The extract range can be mounted in any orientation refer to manufacturers installation and maintenance manual for details. Mechanical installation requires mounting of the extract unit in the designated position and connection to the associated duct work. Either top or bottom access is available as standard. Electrical installation requires the provision and connection of single phase electrical supply at the fan.

INSTALLATION REQUIREMENTS

The mechanical contractor shall ensure that all necessary ancillaries are included eg. flexible connections, attenuators, etc. The contractor shall allow for all necessary ductwork transformations to and from the fan unit and any associate components in accordance with the manufacturer's recommendations, DW 144 and general good practice.

RANGE MODELS

DAVE Extract : Standard lined case. Energy efficient Ecosmart control. Circular spigots.

DAVE Extract Plus: Extended lined case type 'A', G3 filter, attenuation pods, Energy efficient Ecosmart control. Circular spigots.

CODE DESCRIPTION

DE1-ES

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123 4

1. DAVE Range
2. Extract fan
3. Case type: standard size (1-7)
4. ES = Ecosmart control

DE4HA-ES

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12345 6

1. DAVE Range
2. Extract fan
3. Case size (1-7)
4. H = High pressure fan (Size 2 & 4 only)
5. Case type: A = Extended
6. ES = Ecosmart Control

CONTROL SPECIFICATION

The fan unit shall be supplied with the following control:-

ECOSMART – DEMAND CONTROLLED VENTILATION

Provides the facility for energy saving via an intelligent function with local diagnostics status indication, or allows convenient integration with the client BMS with a minimal co-ordination requirement. The factory fitted Ecosmart control panel mounted to the fan unit includes: integral infinitely variable speed /duty control for the extract fan, with independent minimum, maximum speed adjustment for accurate commissioning. The control assembly is side mounted with a removable weather control fascia (if required).

The Ecosmart control enables the fan's speed to be varied automatically as conditions in the ventilated space change by linking low voltage sensors or as the low voltage user control is adjusted. It also enables multiple fans to be directly interlinked. The user control (ES-LCD) and low voltage sensor are supplied complete with a 10m length of low voltage, pre-plugged cable. The control features a run on timer and "background" ventilation function, and is provided with unit status indication, run and fail relays and interface connections for Ecosmart sensors and enablers.

The fans shall have the following energy saving and operational functions integrally installed within it, all components will be pre-wired and fitted by the manufacturer:

- Integral frequency inverter/speed controller
- Integral adjustable run-on timer
- Maximum and minimum speed adjustment/ setting (trickle and boost)
- Volt free run & failure/status indication
- 0-10V BMS interface for remote operation
- Low voltage interface with second fan or supply fan
- Multiple low voltage sockets for interconnection of sensors or fans
- Background ventilation/trickle enable switch.

Fan, Ecosmart controls and associated sensors/ controllers shall be manufactured by Nuair Ltd. Units fitted with Ecosmart control (code example DE3-ES) shall have a 5 year warranty.