

A151DCE fan specification document

Power Usage

The A151DCE fan uses a high efficiency DC motor consuming less energy than AC alternatives. The less energy consumed, the less it costs to run. As the A151DCE is one of the most efficient, low energy motors on the market, it is one of the most economical to run for the building owner or occupant.

Controls

Control of a mechanical extract system (MEV) is of great importance as it requires the user to select required extraction rate depending upon the moisture production levels within the 'wet room'. Intelligent extracts used in conjunction with this fan create a demand controlled ventilation system. The fan runs at a constant speed, then uses a built-in humidity sensor to automatically adjust the ventilation accordingly to its high setting. This improves energy efficiency.



Usage

The A151DCE unit is designed to be used as part of a whole house mechanical extract ventilation system, providing continuous ventilation throughout the property. It can be used in conjunction with either standard rigid circular or flat channel ducting.

Occupant Comfort

In order to reduce noise and so any disruption or inconvenience to the occupant, the already quiet A151DCE includes a new "GreenTech RadiCal" EC direct current motor in an EPP volute. This combination ensures quiet operation which makes it suitable for use within cupboards or where the fan is located within the habitable areas of the dwelling. The airtightness and sound-insulating effect have also been vastly improved by the EPP volute. The A151DCE is the perfect balance of sound level, energy consumption and comfort. The A151DCE has a sound power level between 23dB_{LWA} (70m³/hr) - 45dB_{LWA} (245m³/hr).

Guarantee

The A151DCE v2 is supplied with a manufacturer's one-year guarantee from the date of delivery. This provides peace of mind that the system will perform as designed.

Installation

It is recommended that the A151DCE is installed by a trained competent person.

All mechanical systems are required to be commissioned before use to ensure that the correct air flow is achieved to meet building regulations. This should be completed by a qualified technician and a copy of the certificate should be sent to the Building Control Body (BCB). Any electrical work must be undertaken by a suitably trained and qualified person.

Quality Assurance

Passivent products are designed, developed and manufactured under the BS EN ISO 9001 quality management system, giving an independently audited assurance that the products will fulfil their intended purpose.

Installation Instructions

The A151DCE is designed to be used in various property types, for both new build and refurbishment projects.

The fan can be installed in all positions including against a wall, on the ceiling or on sloping surfaces. The unit has mounting eyes to suspend the fan within loft spaces, if necessary.

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Specification

- A151DCE is designed for use with 230V 50Hz mains voltage.
- A multipolar switch must be fitted with a minimum contact gap of 3mm.
- Supplied with a cord and EU plug which will need to be removed for UK operation. Once the EU plug has been removed, this will need to be connected to a fused spur. Please see the wiring instruction for further information.
- Fans and ducting in or passing through unheated voids or loft spaces should be insulated.

Automatic Mode

In automatic mode, the A151DCE will switch to position 2 when humidity levels increase. The time that the fan continues to operate in this mode depends on the setting of DIP switch 8 and the duration of the increased levels of humidity.

Potentiometer Settings

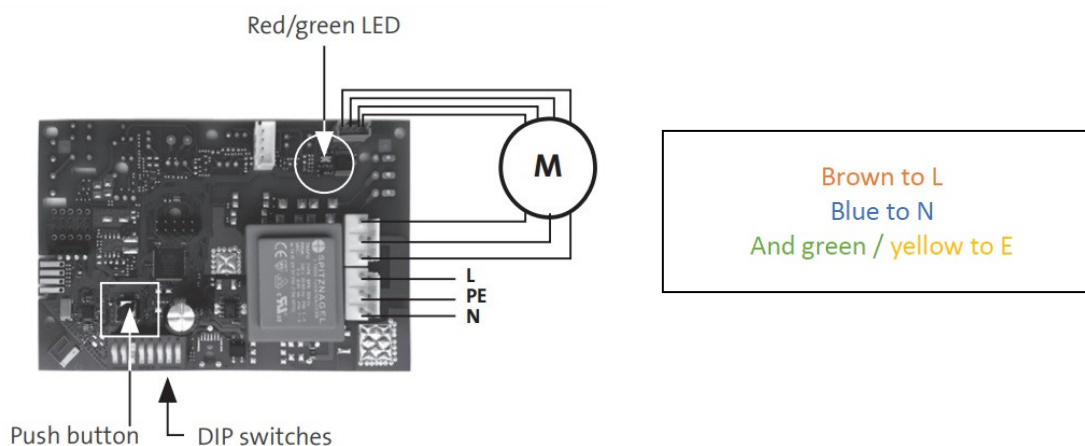
The PCB has 8 DIP switches to adjust the ventilation speed, if applicable for your installation. They are used to adjust the low, medium and high capacity of the unit. The different configuration options of the DIP switches can be found in the installation/user manual.

Performance

	Capacity [m ³ /h]	Pressure [Pa]	Power[W]
	Standard Value		
Level 1 - Low	70	10	3
Level 2 - Medium	150	46	7
Level 3 - High	245 (up to 502)	123	20

* These are the factory settings however Low, Medium and High settings can all be changed between 45m³/hr to 502m³/hr.

Wiring

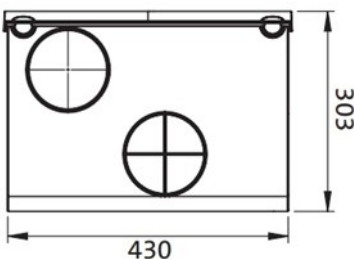
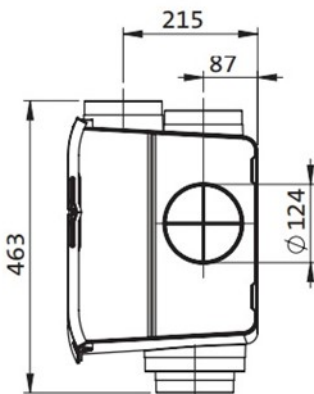


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Energy Performance

Exhaust Terminal Configuration	Fan Speed Setting	Specific Fan Power (W/l/s)	Energy Saving Trust BestPractice Performance Compliant
Kitchen + 1 additional wet room	100% Variable	0.19	Yes
Kitchen + 2 additional wet room	100% Variable	0.24	Yes
Kitchen + 3 additional wet room	100% Variable	0.19	Yes
Kitchen + 4 additional wet room	100% Variable	0.20	Yes
Kitchen + 5 additional wet room	100% Variable	0.23	Yes
Kitchen + 6 additional wet room	100% Variable	0.25	Yes

Dimensions



Specifications

Material

Body: Polypropylene (recyclable)
 Silencer: Acoustic Foam of mixed
 Polyurethane/polyester

Connection

5x 125mm \varnothing spigot to connect via ducting
 to extracts located within 'wet rooms'
 1x 125mm \varnothing spigot to connect via ducting
 to exhaust terminal

Key Features

Automatic humidity controls
 Built-in MVS, no additional components required
 One of the quietest fans at any setting
 Highest EPC reduction

Maximum Dimensions

463mm width x 430mm depth x 303mm height
 Weight 4.4Kg