

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 an 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 silencer. This reduces mechanical noise caused by the moving parts of the fan motor and so makes it suitable for use within cupboards or where the fan is located within the habitable areas of the dwelling. The A151DCE has a sound power level of 50dB_{LWA}

Guarantee

The A151DCE 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 1m length 5 core cable.
- Fans and ducting in or passing through unheated voids or loft spaces should be insulated.

Setting the PCB

Potentiometer Settings

The PCB has two potentiometers to adjust the ventilation speed, if applicable for your installation. They are used to adjust the minimum and/or maximum capacity of the unit. The configuration of the potentiometers must be made within one hour of installation.

Potentiometer 1 (L)

Adjusts the low speed setting, if applicable for your installation. There is a factory minimum set rate of 75m³/h. Potentiometer 1 should be adjusted to achieve the minimum rate as defined within Approved Document F of the Building Regulations if you have a boosted system and are not using the fan running at a constant speed. The adjustment range is 25m³/h to 125m³/h.

Potentiometer 2 (H)

Adjusts the high speed of the unit. The factory setting of the high speed is 275m³/h. The maximum range is between 175m³/h to 325m³/h (at 100Pa). This potentiometer should be adjusted to achieve the ventilation rate through your extracts as defined within Approved Document F of the Building Regulations.

Medium Speed

This is automatically calculated as the midpoint between the low and high speed setting.

Performance

	Capacity [m ³ /h]	Pressure [Pa]	Power [W]
	Standard Value		
Level 1 - Min	25	5	1.6
Level 2 - Standard *	175	60	10.2
Level 3 - Min	175	60	10.2
Level 3 - Standard	275	100	31.6
Level 3 - High	415	100	62

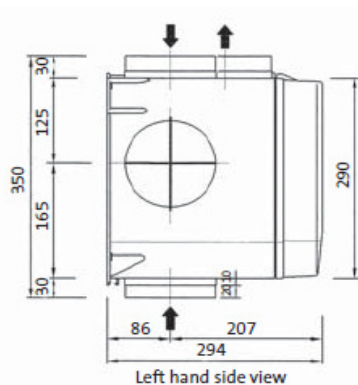
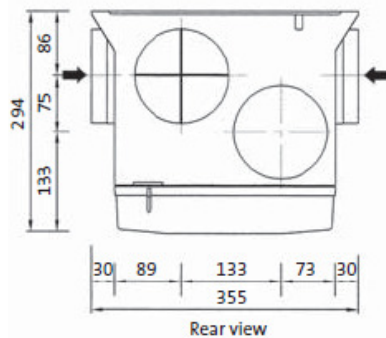
* Level 2 is the automatic mode where the humidity sensor automatically regulates between low speed and high speed

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Energy Performance

Exhaust Terminal Configuration	Fan Speed Setting	Specific Fan Power (W/l/s)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	100% Variable	0.18	Yes
Kitchen + 2 additional wet room	100% Variable	0.17	Yes
Kitchen + 3 additional wet room	100% Variable	0.18	Yes
Kitchen + 4 additional wet room	100% Variable	0.20	Yes
Kitchen + 5 additional wet room	100% Variable	0.22	Yes
Kitchen + 6 additional wet room	100% Variable	0.27	Yes

Dimensions



Specifications

Material

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

Connection

4x 125mm \varnothing spigot to connect via ducting to extracts located within 'wet rooms'
 1x 125mm \varnothing spigot to connect via ducting to exhaust terminal

Maximum Dimensions

355mm width x 294mm depth x 290mm height
 Weight 3.4Kg