Bradford™ SAINT-GOBAIN

NZ

Product Technical Statement

# AiroMatic Powered Roof Ventilator

Refer to product table below for applicable product codes covered by this document

Issue **B 10/2025**

## Product Type & Application

AiroMatic is a smart roof ventilator with a low voltage electronic commutating motor fitted with temperature and humidity sensors to control fan operation and speed.

## Compliance with the New Zealand Building Code

When correctly specified and installed, this product meets or contributes to compliance with the following performance requirements of the building code:

- **B2 Durability** B2.3.1(b) – The materials of construction of the AiroMatic ventilator have a well-established history of use in service.
- **E2 External Moisture** E2.3.2 - The Bradford Ventilation EcoPower has more than 20 years' history of use. It complies with the Australian NCC for use in all non-cyclonic wind zones and is tested to AS4046.9.
- **E3 Internal moisture** – E3.3.1 (contributes to) - The AiroMatic ventilator removes moisture laden air from buildings and roof spaces
- **F2 Hazardous building materials** - F2.3.1 - The materials of construction of the AiroMatic ventilator do not emit or give rise to harmful concentrations of gas, liquid, radiation or solid particles.
- **G4 Ventilation** G4.3.1, G4.3.3 (contributes to) - provides air changes to maintain air purity.
- **G9 Electricity** - G9.3.1 - The AiroMatic ventilator has electrical safety certification.

## Basis of Compliance

- Weatherproofing – Excelo Performance Solution Report ECE24168 Residential. CSR Bradford Roof Ventilator Weatherproofing Performance Solution, 5 March 2025.
- Electrical Equipment Safety Scheme Certificate-
- GMA-515619-EA.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B2 Durability Second edition (Amendment 12), 28 November 2019.
- Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3 for New Zealand Building Code Clause E2 External Moisture Third edition (Amendment 10), 5 November 2020.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause G4 Ventilation Fourth edition, 27 June 2019.

## Limitations of Use

- **IMPORTANT** - Do Not Modify This Product: Compliance with the evidence of suitability data referenced in this document is only achieved by the product or configuration listed in this PTS.
- Do not use for exhausting hazardous, abrasive, acidic and alkaline vapour or areas containing explosive or corrosive materials.
- This product has not been tested for, and is not suitable for use in cyclonic wind regions.
- This product is not suitable for use within 500m of a saltwater body.

## Conditions of Storage, Use & Maintenance

- Store in the original packaging in a cool and dry area.
- The electronics and electrical components are designed for indoor installation only and should not come into contact with water.
- Do not attempt to repair – contact Bradford Ventilation for service advice.

**Refer to the product warranty at bradfordventilation.co.nz for more information.**

## Specific Design or Installation Instructions

- Isolate power before installation.
- This product requires specific areas to be sealed against water entry and other areas to be left unsealed to allow internal condensation drainage – refer to the installation guide for details.
- Replacement outside air must be provided via evenly distributed openings such as Bradford Ventilation Metal Eave Vents positioned to facilitate cross-flow ventilation and help the powered ventilator to work more effectively and efficiently.
- Electrical connection requires 240VAC GPO for operation.
- The power supply and speed controller are for dry indoor use only. Ensure that the power supply and speed controller are not left on damp surfaces - fasten to the internal structure with screws or cable ties as required.
- Only use one powered ventilator per speed controller and power supply as supplied by Bradford Ventilation.
- The AiroMatic has an unguarded fan assembly and should not be used in locations readily accessible to people or animals - the fan is intended for use facing an unoccupied space only.



CSR



Document Reference: Airomatic Powered Roof Ventilator_Bradford Ventilation_PTS431_B

# AiroMatic Powered Roof Ventilator

## Specific Design or Installation Instructions cont.

- This product contains a fan which might be audible when in operation – avoid positioning the product directly over bedrooms, bedroom ensuites or on a roof area adjacent to, or overlooked by an upper storey level of the home where the fan noise may be heard.

Table1 below indicates how many ventilators and vents are required for condensation management based on the longest horizontal dimension (e.g., the longest length of gutter) of the roof. Ventilation openings should be evenly distributed.

AiroMatic powered ventilators should be installed not more than 900mm below the ridge or highest point of the roof space, measured vertically.

**Table 1. Bradford Performance Solution Table for condensation management[1]**

| Longest Horizontal Roof Dimension | Number of AiroMatic® Ventilators Required[2] | Number of Bradford Metal Eave Vents Required | Number of Bradford Poly Eave Vents Required | Unobstructed area for air replacement[3] |
|---|---|---|---|---|
| 0 to <50m | 1 | 4 | 6 | 0.15m² |
| 50m to <100m | 2 | 6 | 9 | 0.21m² |

[1] Roof pitches with a slope range of 15° to 35° for tiled roofs and 3° to 35° for metal sheet roofs.
[2] At pre-fixed speed.
[3] The unobstructed area for air replacement is an alternate solution to replace Bradford Metal Eave Vents and assumes evenly distributed openings.

Table 2 below indicates the ventilation opening requirements for condensation management when kitchen, bathroom, sanitary compartment or laundry exhaust systems are discharging into the roof space.

- Calculate the area (m²) of ceiling directly under the roof space;
- Determine the pitch of the roof;
- Install Airomatic(s) and Metal Eave Vents according to the Bradford Ventilation Performance Solution Table;
- Distribute the powered ventilator(s) and metal eave vents evenly.

**Table 2. NCC 2019 Bradford Performance Solution**

| Roof Pitch | Total Ceiling Area[1] | AiroMatics Required[2] | Metal Eave Vents | Make-Up Air Open Area[3] |
|---|---|---|---|---|
| > 22° | < 203 m² | 1 | 4 | 0.15 m² |
| | < 407 m² | 2 | 6 | 0.21 m² |
| ≤ 22° | < 127 m² | 1 | 4 | 0.15 m² |
| | < 254 m² | 2 | 6 | 0.21 m² |
| | < 381 m² | 3 | 8 | 0.28 m² |

[1] Total Ceiling Area is defined as the total ceiling area directly under the roof/attic space.

[2] At pre-fixed speed.

[3] The Make-Up Open Area air is an alternate solution to replace Bradford Metal Eave Vents and assumes evenly distributed openings in accordance with the Australian NCC requirement.

**For general installation guidance refer to the product installation guide at www.bradfordventilation.co.nz**

# AiroMatic Powered Roof Ventilator

## Applicable Product Codes (SKU)

| Variant | Material Code |
|---|---|
| AiroMatic Surfmist | 112155 |
| AiroMatic Headland | 112153 |
| AiroMatic Woodland Grey | 112156 |
| AiroMatic Night Sky | 112154 |

## Product Specifications

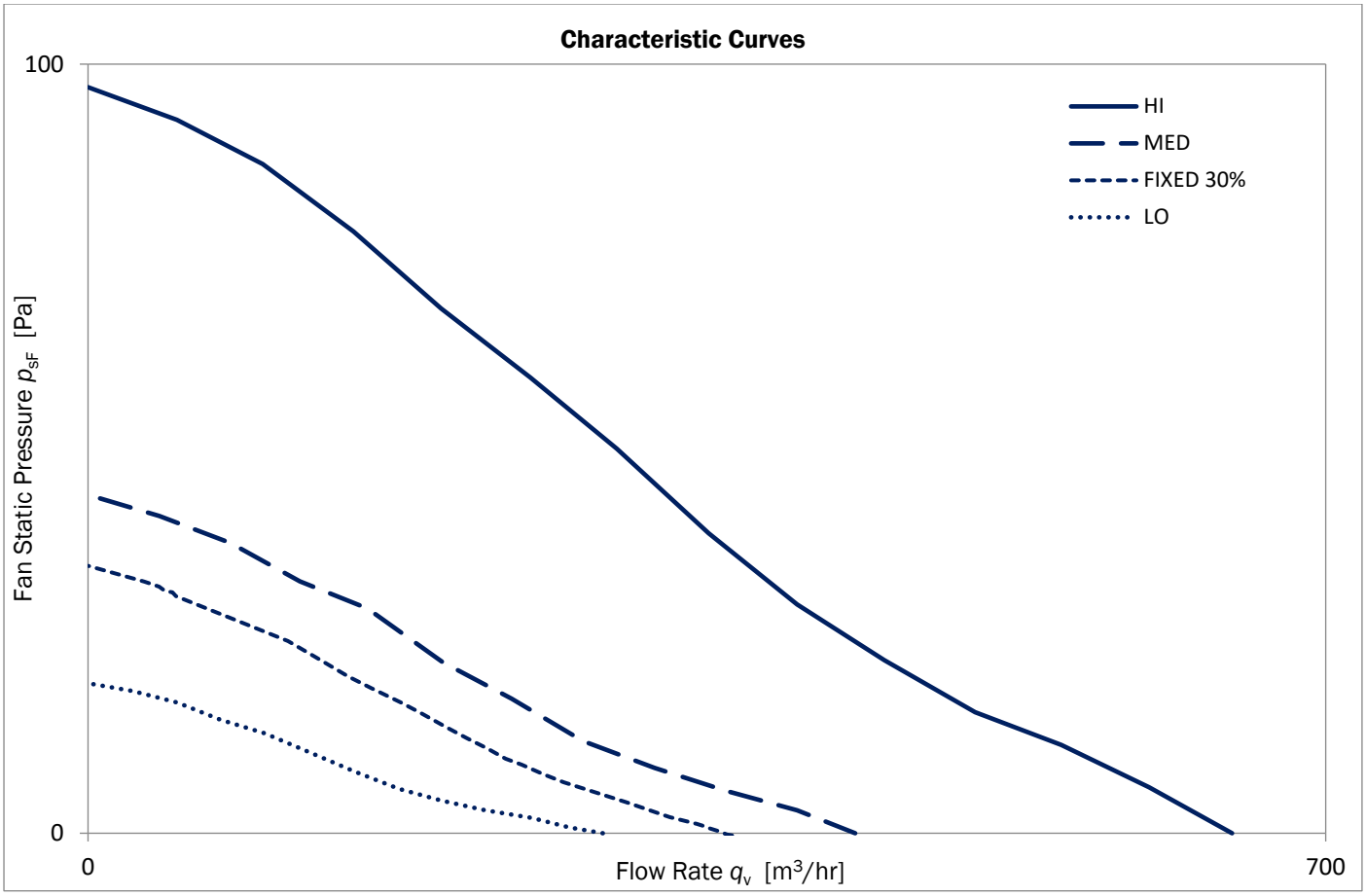
| General | |
|---|---|
| Ventilator Type | Powered Roof Ventilator |
| Fan Diameter | 230 mm |
| Minimum Throat Diameter (Not suitable for use in calculating Australian NCC Ventilation opening requirements) | 250 mm |
| Product Weight | 2.95 kg |
| Packaged Weight | 3.70 kg |
| Roof Slope Installation Range | **Tiled Roofs** 15° to 35°<br>**Metal Sheet Roofs** 3° to 35°<br>Note: Where applicable all roof pitches must comply to AS1562.1, the Building Code and associated standards. |

| Electrical | |
|---|---|
| Power Supply Type | Electronic Switch Mode |
| Input Voltage | 100-240VAC, 1A, ~50/60Hz |
| Output Voltage | 24 VDC |
| Cable Length | Approx. 1.8 m |
| Installation Location | Indoor, Dry Area |
| | |
| Fan Type | Electronic Commutating Motor |
| Internal Voltage | 24 VDC |
| Protection Class | IP54 |
| Maximum Flow Rate | 647 m³/hr |

| Material | |
|---|---|
| Clear Dome | UV Stable Clear Acrylic |
| Housing | Weatherproof Acrylic |
| Flashing | Aluminium |
| Fan and Motor Housing | Polypropylene |
| Fan Impeller | Glass-Filled Nylon |
| Screws | Stainless Steel and Galvanised |

# AiroMatic Powered Roof Ventilator

## Product Performance – Ventilator Flowrate



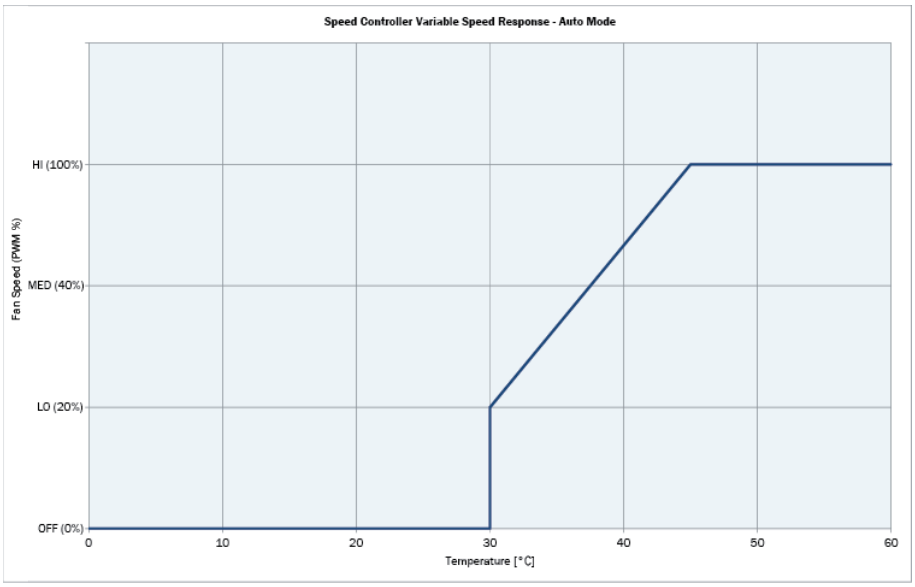
# AiroMatic Powered Roof Ventilator

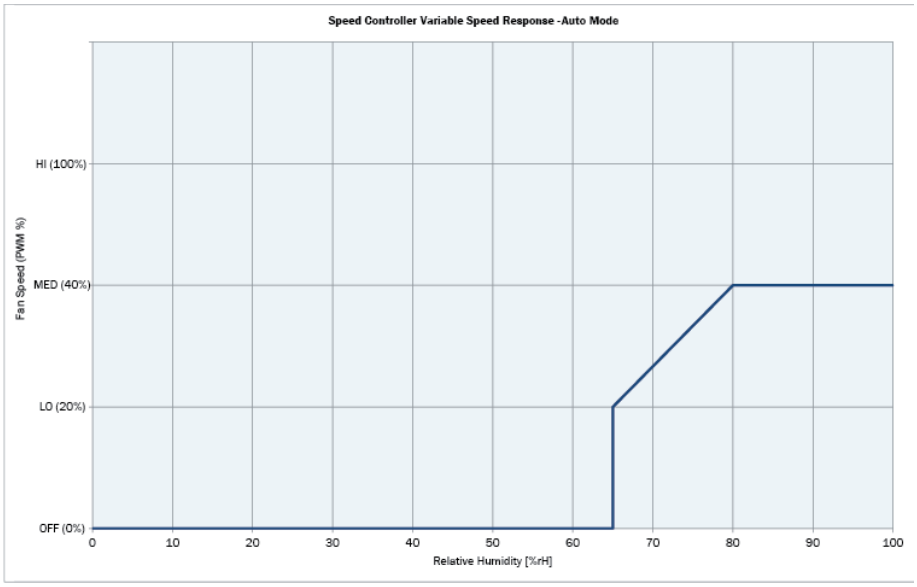
## Ventilator Fan Speed Options

AiroMatic has 3 fixed speed options available (LO, MED, HI) or a variable (AUTO) speed which responds to both ambient temperature and to ambient relative humidity.

- In AUTO when measuring the temperature, the fan response will be off below 30°C, LO speed at 30°C and a linear increase in speed until HI speed is reached at 45°C.
- In AUTO when measuring relative humidity, the fan response will be off below 65%rH. At 65%rH the fan will start in LO speed and there will be a linear increase in speed until MED speed is reached at 80%rH.

The two charts below summarise the fan response.

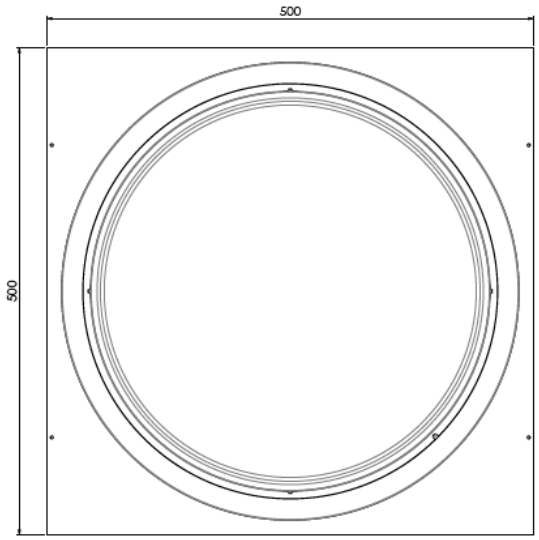


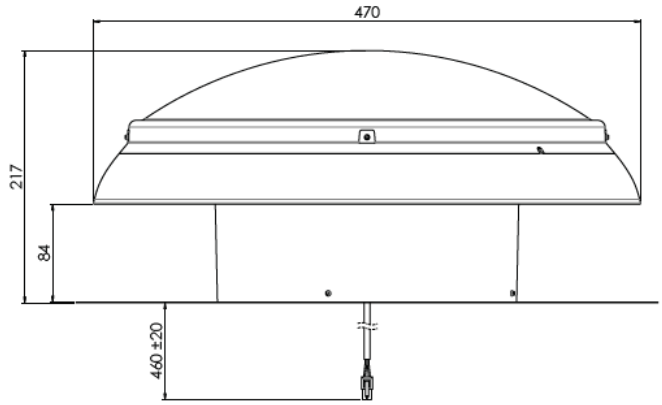
# AiroMatic Powered Roof Ventilator

## Product Dimensions

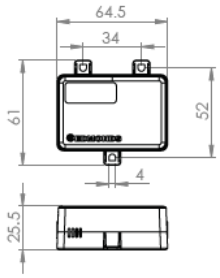
### Top View




### Front View




### Speed Controller




### Power Supply

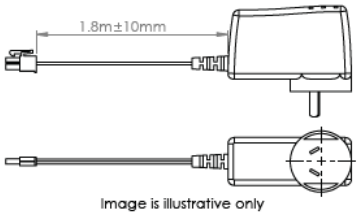



Image is illustrative only