Bradford™

Product **Technical** Statement

# EcoPower® Hybrid Ventilator

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

Issue **A**

## Product Type & Application

The Bradford EcoPower Hybrid Ventilator is designed to exhaust heat and moisture from non-BAL residential (Class 1) and commercial roofs (Class 2 to 9). The product incorporates a vertical vane turbine ventilator to allow it to operate under wind power or via its high efficiency electronically commutated (EC) motor.

## Compliance with the NCC

- There are no relevant clauses within the NCC for this product to comply with.

## Evidence of Suitability

- There are no relevant clauses within the NCC to show compliance with – refer to the Additional Data section of this PTS for other compliance data

## Conditions of Storage, Use & Maintenance

- Store in the original packaging in a cool and dry area.
- Do not attempt to repair – contact Bradford Ventilation.
- This product requires regular check for wear/tear.

**Refer to the product warranty at bradfordventilation.com.au for more information.**

## Specific Design or Installation Instructions

- **Caution**: The turbine head of this product can rotate without warning (even during installation) – always keep body parts away from moving components.
- This is a general-purpose hybrid ventilation product, always refer to the installation guidance provided with the product prior to installation.
- **Safety**: It is recommended to connect EcoPower ventilators to a D-curve electrical circuit breaker.
- The table below shows the minimum make-up air requirement per ventilator that should be provided in accordance with AS1668.2

| Product | Make-Up Air* per ventilator - 100% open, evenly distributed open area |
|---|---|
| EP400 | ≥ 0.3m² |
| EP600 | ≥ 0.5m² |
| EP900 | ≥ 0.9m² |

- Make-up air should be provided via evenly distributed openings which are permanently open and positioned to help the ventilator work more effectively and efficiently (refer to the product installation guide for guidance) – note that these openings may also require ember protection in BAL zones which may restrict airflow and require the replacement air/make-up air area calculation to be increased.
- The source of make-up air should be outdoor air.
- The rotating head of this product must be installed horizontally to ensure correct operation – adjustment of the varipitch and base flashing is critical to achieve this orientation (refer to the installation guide for details)
- If the product is installed with a stainless-steel mesh, it should be periodically inspected to remove foreign objects and/or dust build-up to maintain airflow.
- 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.

**For general installation guidance refer to the product installation guide at www.bradfordventilation.com.au**

## Limitations of Use

- Do not use for exhausting hazardous, abrasive, explosive materials, alkaline vapour, corrosive or in very high moisture environments (such as water tanks).
- This product is not suitable for use in cyclonic regions.
- This product is not suitable for use in Bush Fire (BAL) or FZ rated areas.
- The optional stainless-steel mesh used in this product as an insect guard does not comply with BAL requirements
- Seek technical advice from Bradford Ventilation on application suitability if unsure.

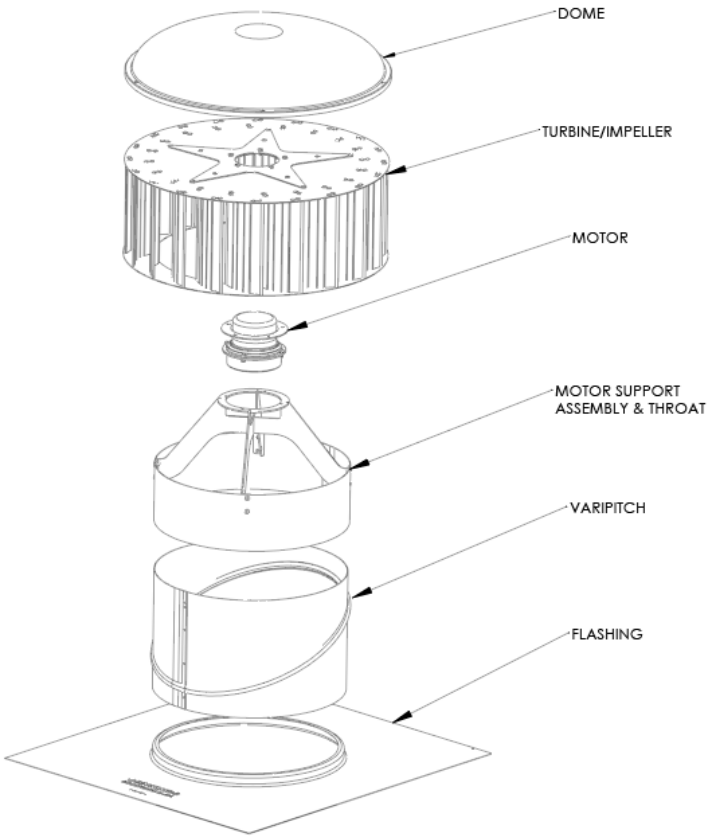
CSR

# EcoPower® Hybrid Ventilator

## Applicable Product Codes (SKU) – EcoPower 400

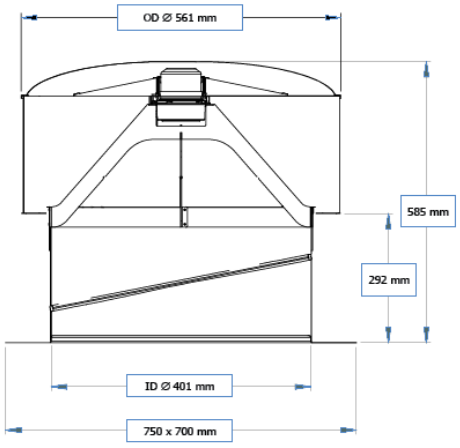
| Variant | Material Code |
|---|---|
| EcoPower 400 Mill Finish | 167410 |
| EcoPower 400 Special | 600678 |

## Product Specifications (in exploded view) – EcoPower 400




## Product Information Summary – EcoPower 400

| Electrical/General | |
|---|---|
| Voltage (V) | 220-240 |
| Frequency (Hz) | 50-60 |
| Pmax (W) | 59.2 |
| Imax (A) | 0.55 |
| Roof Opening Diameter (mm) | 400 |
| Weight (kg) | 9.42 |
| Max. Ambient Temp (°C) | 60 |

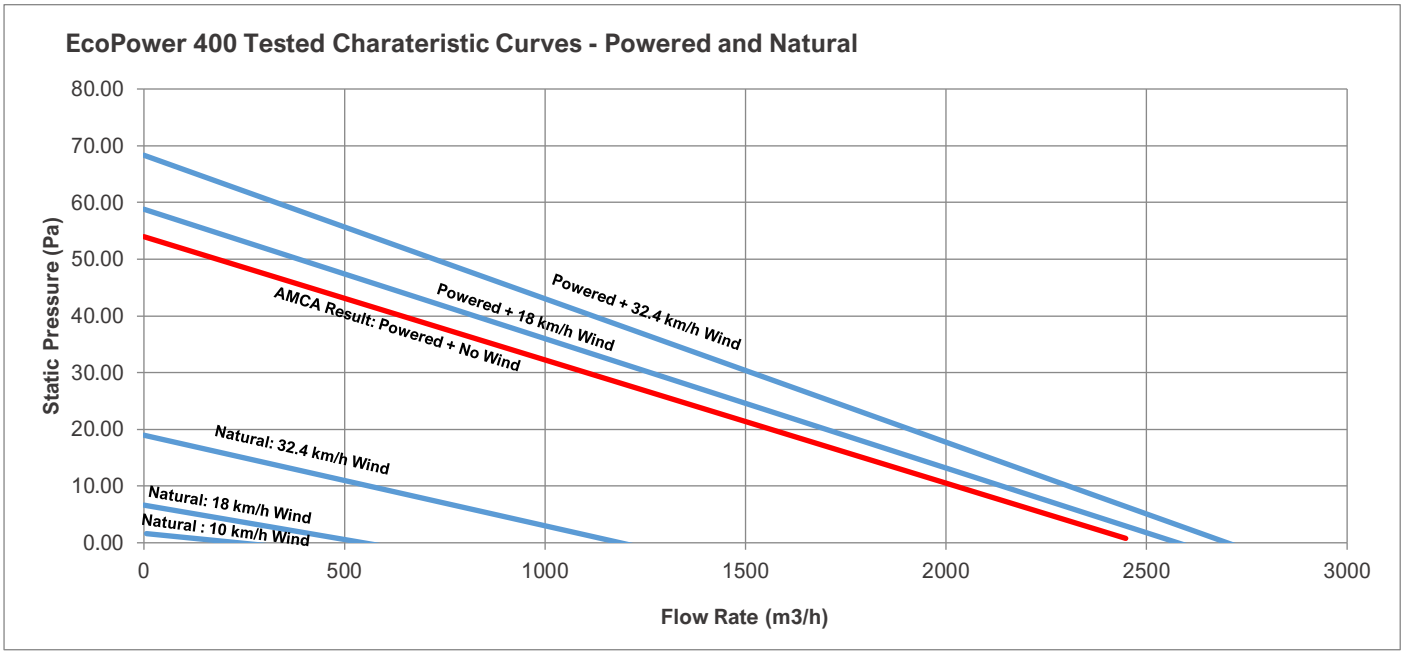



**CSR Bradford** Locked Bag 1345 North Ryde BC NSW 1670
**csrbradford.com.au**

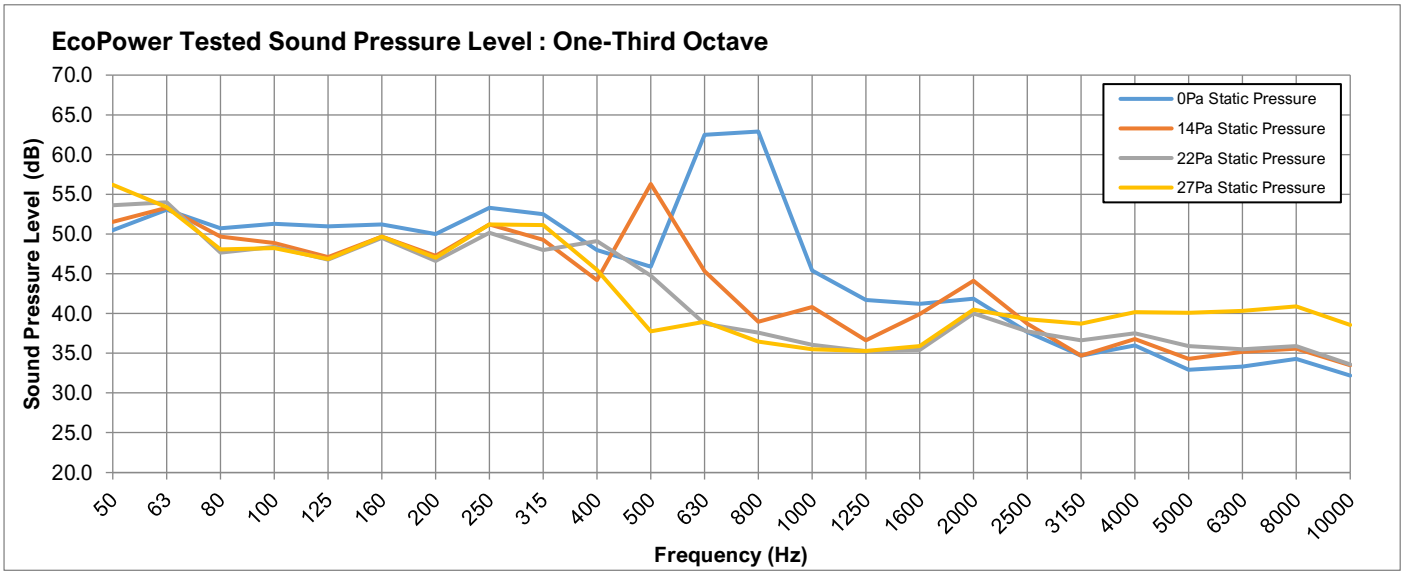
For further technical advice
call **1300 850 305** or visit **csrbradford.com.au**

# EcoPower® Hybrid Ventilator

| Performance Data – EcoPower 400 | | | | |
|---|---|---|---|---|
| | Static Pressure (Pa) | | | |
| | 0 | 14 | 22 | 27 |
| RPM | 344 | 1165 | 865 | 720 |
| Flow Rate without Wind (m³/hr) | 2484 | 1980 | 1476 | 1224 |
| Power (W) | 57 | 59 | 57 | 56 |
| Sones | 5.3 | 3.5 | 2.9 | 3.4 |
| LwA (dB) | 65 | 56 | 52 | 52 |




Airflow rates are tested by AMCA in accordance with ISO5801, equivalent to AMCA Standard 210. Natural performance and wind assisted data is tested as per ISO5801 with an external wind source providing a constant source of wind across the specimen. Wind assisted tests performed by Edmonds on Edmonds in house test equipment. Wind assisted performance testing is outside the scope of AMCA's test standards.



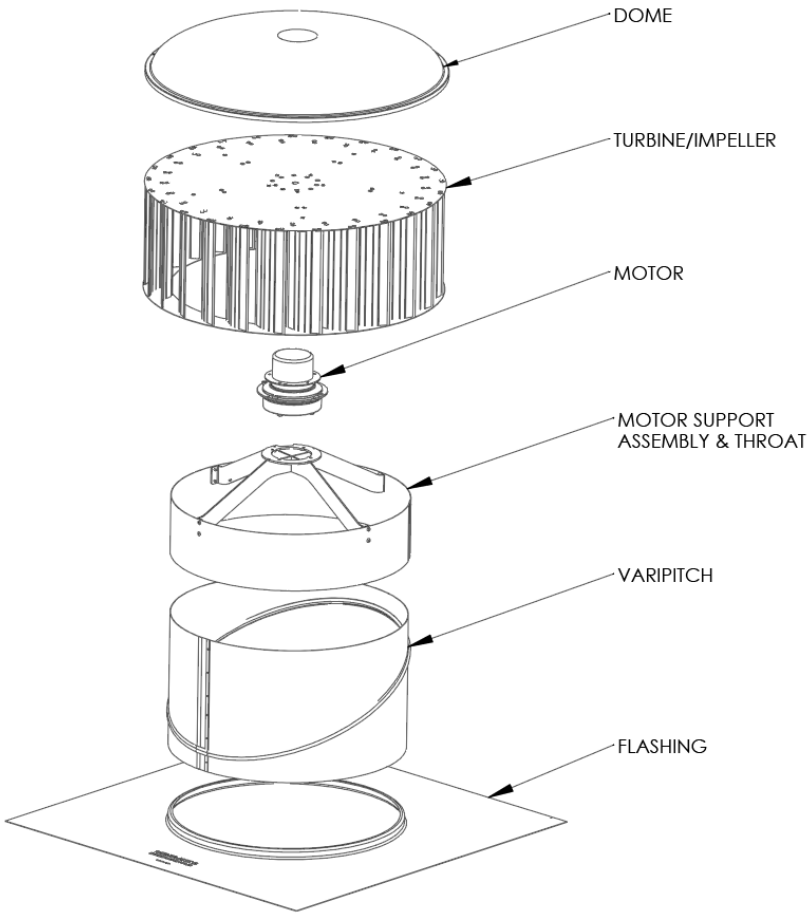

Testing was conducted by AMCA International. Product tested to AMCA Standard 300, Figure 2 Setup, Installation Type A, equivalent to ISO 13347.

# EcoPower® Hybrid Ventilator

## Applicable Product Codes (SKU) – EcoPower 600

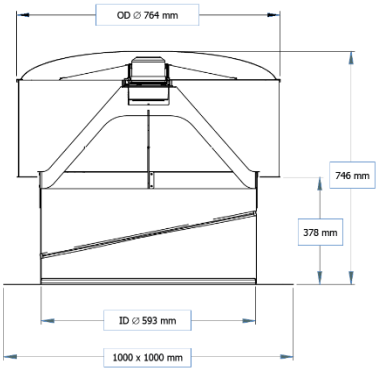
| Variant | Material Code |
|---|---|
| EcoPower 600 Mill Finish | 181187 |
| EcoPower 600 Special | 611679 |

## Product Specifications (in exploded view) – EcoPower 600




## Product Information Summary – EcoPower 600

| Electrical/General | |
|---|---|
| Voltage (V) | 220-240 |
| Frequency (Hz) | 50-60 |
| Pmax (W) | 98.8 |
| Imax (A) | 0.71 |
| Roof Opening Diameter (mm) | 600 |
| Weight (kg) | 18.14 |
| Max. Ambient Temp (°C) | 50 |

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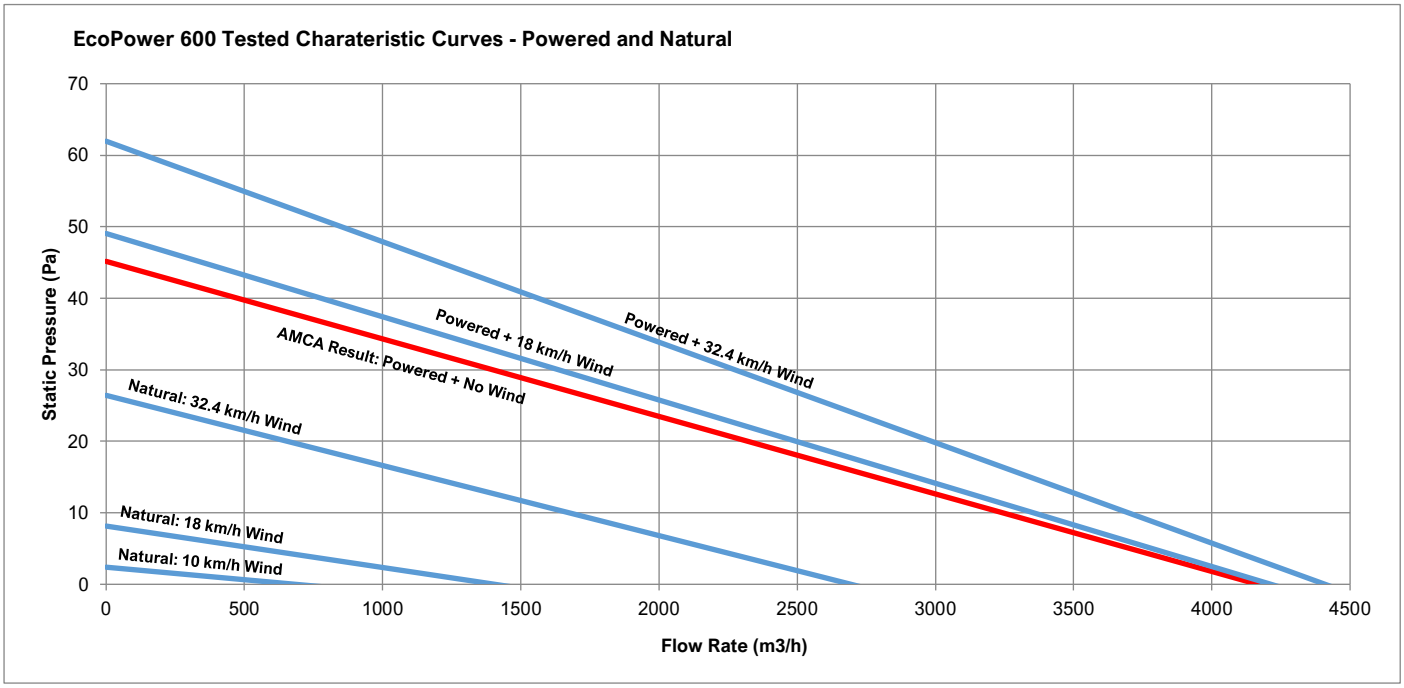
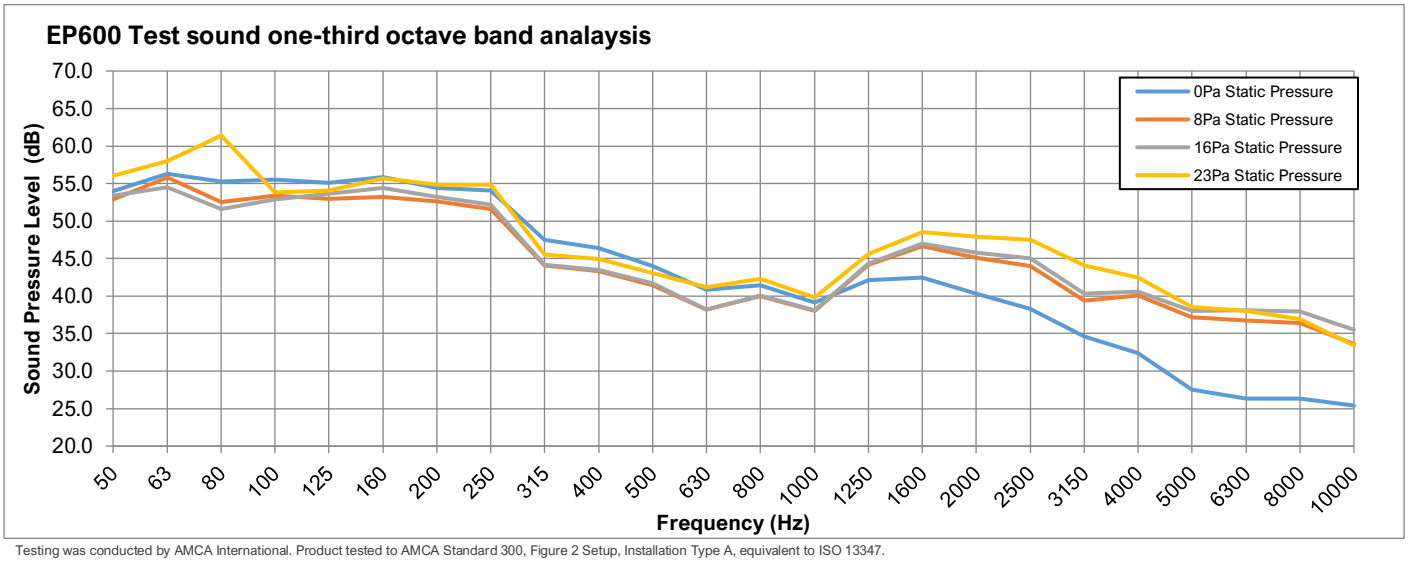
# EcoPower® Hybrid Ventilator

| Performance Data – EcoPower 600 | | | | |
|---|---|---|---|---|
| | Static Pressure (Pa) | | | |
| | 0 | 14 | 22 | 27 |
| RPM | 235 | 230 | 232 | 251 |
| Flow Rate without Wind (m³/hr) | 4356 | 3492 | 2592 | 1728 |
| Power (W) | 96.9 | 98.8 | 97.1 | 89.6 |
| Sones | 3.2 | 3.6 | 3.8 | 4.3 |
| LwA (dB) | 54 | 55 | 55 | 57 |




Airflow rates are tested by AMCA in accordance with ISO5801, equivalent to AMCA Standard 210. Natural performance and wind assisted data is tested as per ISO5801 with an external wind source providing a constant source of wind across the specimen. Wind assisted tests performed by Edmonds on Edmonds in house test equipment. Wind assisted performance testing is outside the scope of AMCA's test standards.



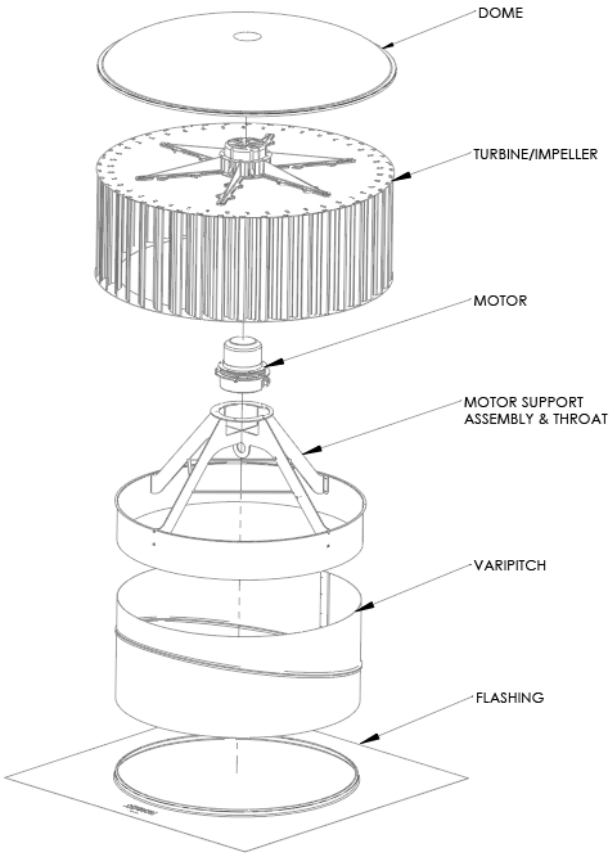

Testing was conducted by AMCA International. Product tested to AMCA Standard 300, Figure 2 Setup, Installation Type A, equivalent to ISO 13347.

# EcoPower® Hybrid Ventilator

## Applicable Product Codes (SKU) – EcoPower 900

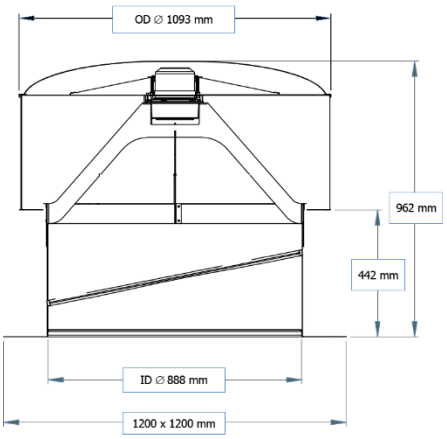
| Variant | Material Code |
|---|---|
| EcoPower 900 Mill Finish | 93688 |
| EcoPower 900 Special | 600680 |

## Product Specifications (in exploded view) – EcoPower 900




## Product Information Summary – EcoPower 900

| Electrical/General | |
|---|---|
| Voltage (V) | 220-240 |
| Frequency (Hz) | 50-60 |
| Pmax (W) | 212 |
| Imax (A) | 0.904 |
| Roof Opening Diameter (mm) | 900 |
| Weight (kg) | 36 |
| Max. Ambient Temp (°C) | 60 |

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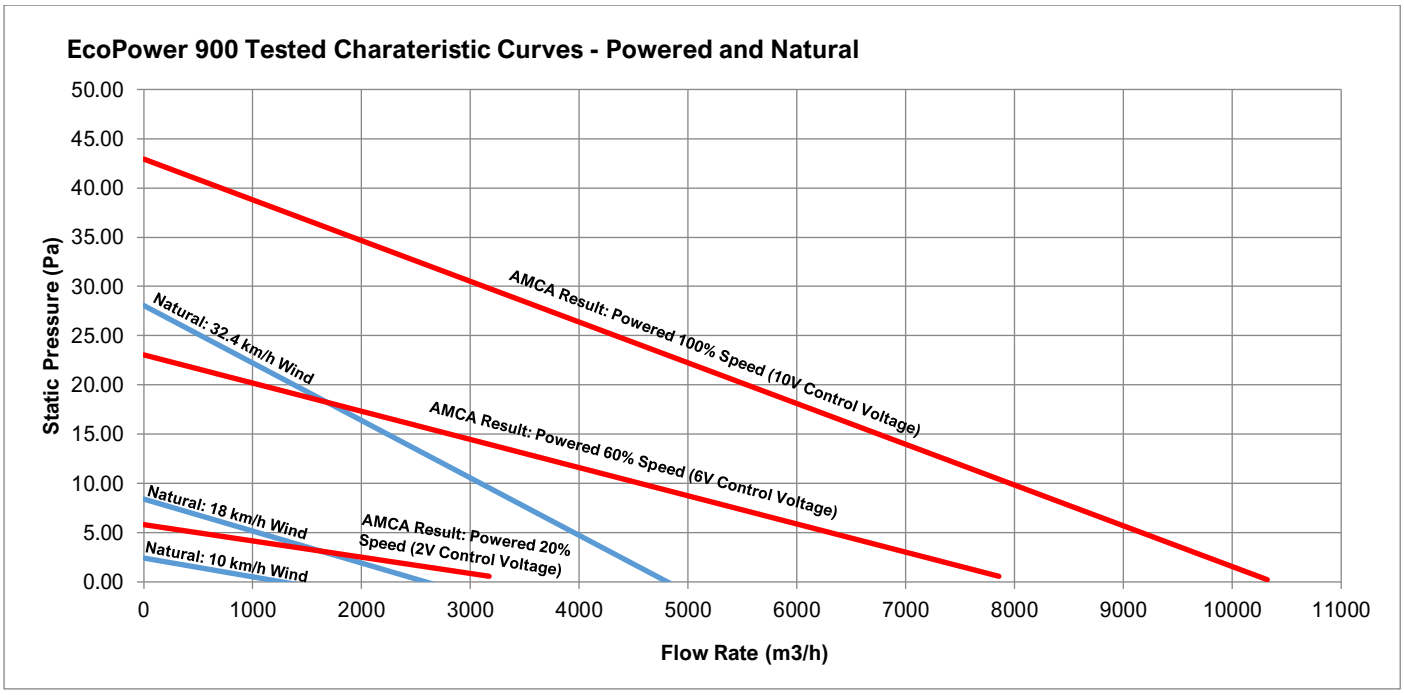
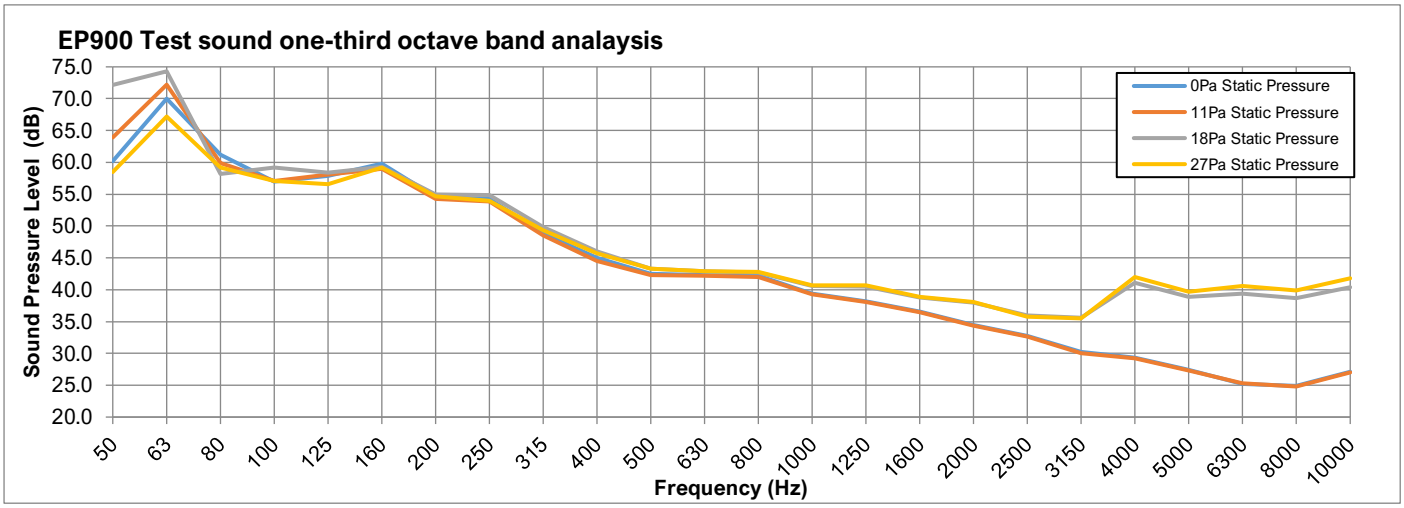
# EcoPower® Hybrid Ventilator

| Performance Data – EcoPower 900 | | | | |
|---|---|---|---|---|
| | Static Pressure (Pa) | | | |
| | 0 | 14 | 22 | 27 |
| RPM | 168 | 168 | 170 | 189 |
| Flow Rate without Wind (m³/hr) | 10321 | 8272 | 6112 | 3650 |
| Power (W) | 204 | 212 | 207 | 172 |
| Sones | 3.4 | 3.6 | 4.9 | 4.2 |
| LwA (dB) | 54 | 54 | 56 | 55 |




Airflow rates are tested by AMCA in accordance with ISO5801, equivalent to AMCA Standard 210. Natural performance and wind assisted data is tested as per ISO5801 with an external wind source providing a constant source of wind across the specimen. Wind assisted tests performed by Edmonds on Edmonds in house test equipment. Wind assisted performance testing is outside the scope of AMCA's test standards. *Standard fixed speed EP900 operates at 10V. **2V and 6V curves only applicable if EP900 0-10V variable speed is optioned.




Testing was conducted by AMCA International. Product tested to AMCA Standard 300, Figure 2 Setup, Installation Type A, equivalent to ISO 13347.