

# Odyssey® Hybrid Ventilator

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

Issue **A**

## Product Type & Application

This is a hybrid ventilator that uses both natural (wind) and powered ventilation to exhaust heat and moisture from the roof space and interior of the residential building (Class 1) and commercial buildings (Class 2 to 9).

## Compliance with the NCC

When correctly specified and installed, this hybrid ventilator meets the requirement of the NCC2019 Roof and Wall Cladding Section 3.5 via Deemed-to-Satisfy (DtS) and performance solution pathways.

## Evidence of Suitability

- ARCADIS Weatherproofing Performance Solution Report (30051677-4).

## 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.

Refer to the product warranty at [bradfordventilation.com.au](http://bradfordventilation.com.au) for more information.

## Limitations of Use

- The ventilator is designed for ventilation in a non-cyclonic region.
- Do not use for exhausting hazardous, abrasive, explosive materials and smoke.
- The maximum roof slope for installation of this product is 35° - minimum is 3°.
- This product is not suitable for bushfire (BAL) rated areas.
- Seek technical advice from Bradford Ventilation on application suitability if unsure.
- **IMPORTANT - Do Not Modify This Product:** Performance and safety are only achieved by the product or configuration listed in this PTS.

## 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.
- Replacement air must be provided by outside air that enters via evenly distributed openings such as eave vents positioned to facilitate crossflow ventilation and help the ventilator to work more effectively and efficiently.
- Assembly and installation must be in accordance with the product Installation Manual.
- This product requires a 240V AC GPO for operation.
- **WARNING:** 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 manual for details.
- Only use the provided parts for connection of components - do not attempt to connect any components to any other device other than what is stated in Installation Manual.
- It is recommended to install one ventilator for every 150m<sup>2</sup> of ceiling area.
- For multiple ventilator installations, ensure that the ventilator turbines and their respective ceiling grilles and eave vents (or similar) are evenly distributed for efficient ventilation.

For general installation guidance refer to the product installation guide at [www.bradfordventilation.com.au](http://www.bradfordventilation.com.au)

## Odyssey® Hybrid Roof Ventilator

### Applicable Product Codes (SKU) – Odyssey H2400

Variant	Material Code
Headland	157191
Night Sky	157192
Surfmist	157194
Woodland Grey	157194

### Applicable Product Codes (SKU) – Odyssey HR2400

Variant	Material Code
Headland	116756
Night Sky	116757
Surfmist	116758
Woodland Grey	116759

### Installation Requirements

Variant	Odyssey H2400	Odyssey HR2400
Roof Slope Installation Range	3° to 35°	
Homes with 600mm Rafter Spacing (Standard Unit)		
Roof Space Minimum Height	0.25 m	0.70 m
Roof Space Maximum Height	2.25 m	2.40 m
Homes with 450mm Rafter Spacing (requires Extension Collar)		
Roof Space Minimum Height	0.25 m	0.85 m
Roof Space Maximum Height	2.25 m	2.40 m

### Product Specifications

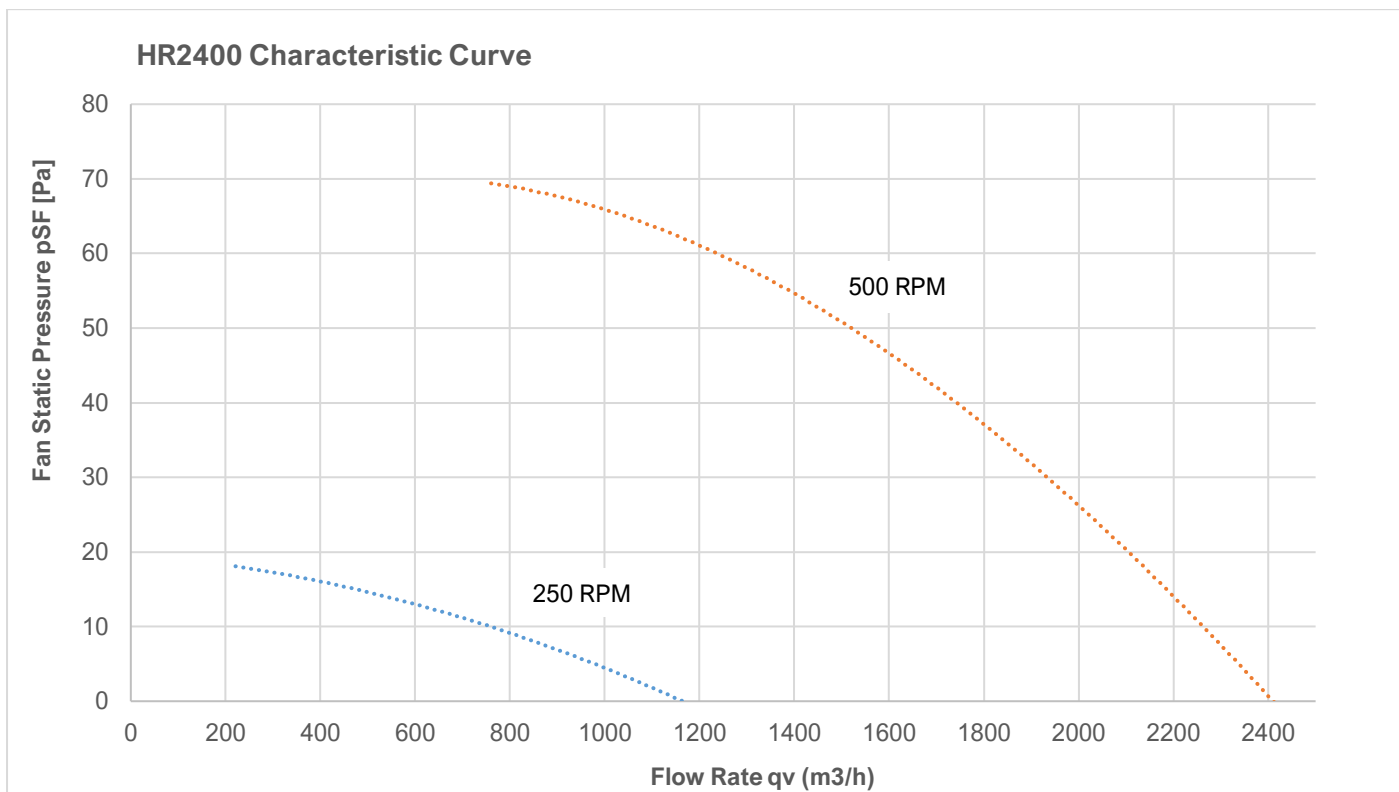
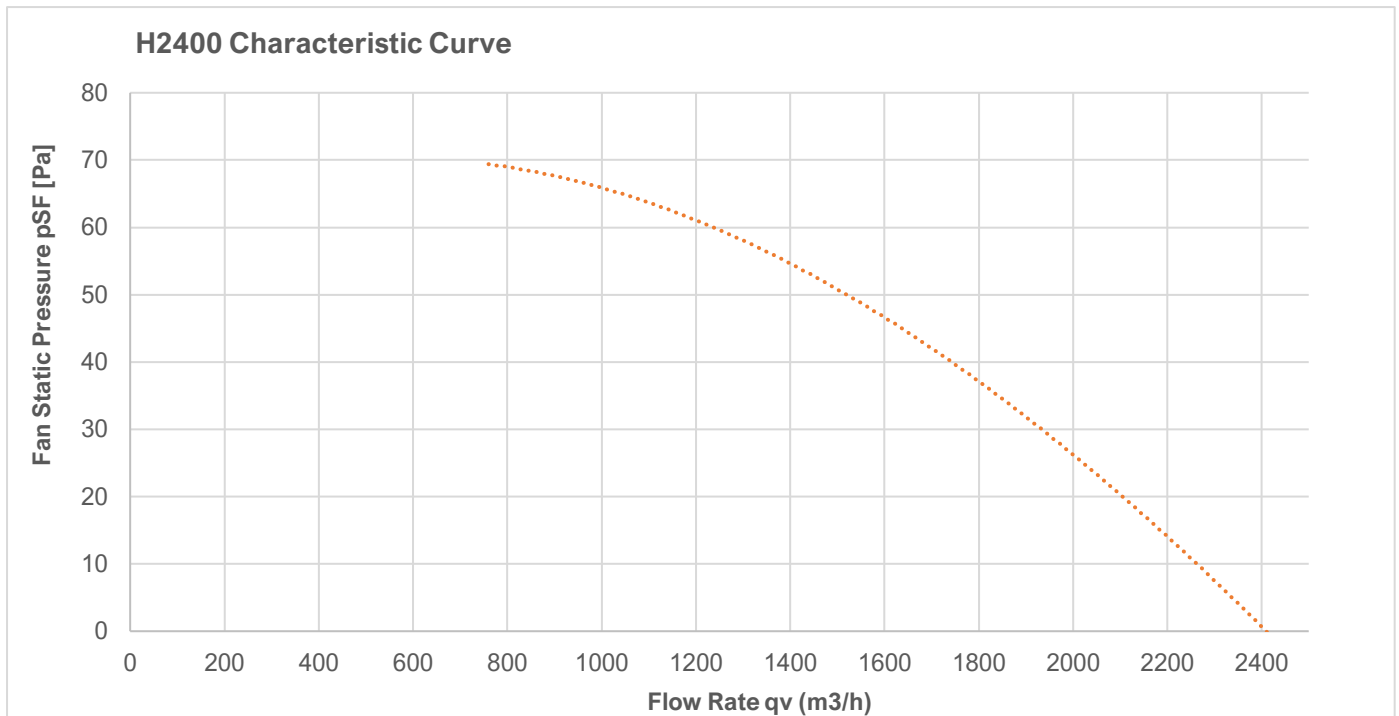
Variant	Odyssey H2400	Odyssey HR2400
Electrical	240 VAC 50 Hz Max. 75W	
Ventilation Zones	Living Space	Living Space & Roof Space
Inlet Throat Diameter	400 mm	-
Turbine Diameter	500 mm	-
Turbine Speed (Full Speed)	500 RPM	500 RPM
Turbine Speed (Half Speed)	-	250 RPM
Flow Rate (Full Speed) @ $\Delta p_s F=0$	2400 m <sup>3</sup> /hr	2400 m <sup>3</sup> /hr
Flow Rate (Half Speed) @ $\Delta p_s F=0$	-	1150 m <sup>3</sup> /hr

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Variant	Odyssey H2400	Odyssey HR2400
Motor	Electronic Commutating (EC) brushless motor	
Material		
Housing & Rotor	Plastic (ASA & PPS-GF40)	
Flashing & Collar	Soft Aluminium - Powder coated	
Weight	9.21 kg	
Diverter Valve		
Type	-	2-way air source diverter valve
Inlet/Outlet Nominal Diameter	-	400 mm
Actuator Voltage	-	24 VDC
Materials	-	Plastic (ASA & PA6-GF-30)
Weight	-	2.97 kg
Ducting		
Type	Flexible metallised polyester film with helix wire support	
Diameter	400 mm	
Length	2 m	
Colour	Black internal, reflective foil external	
Ceiling Grille		
Type	Return air grille with magnetically coupled removable grille	
Diameter	400 mm	
Materials	Plastic (ASA & PA6-GF30)	
Weight	1.06 kg	
Control System		
Type	Wall Switch	8.9 cm (3.5") colour touch screen
Cable Length	10 m	15 m
Control Type	Mechanical Switch Fixed Speed / Standby	Intelligent ventilation based of environmental sensors and user settings
Control System Setpoints (Target Temperatures)	-	Living Space  18°C - 28°C Roof Space  35°C - 50°C
Data Logging	-	Temperature – 2 years
Environment Sensors		
Type	-	Temperature & Humidity Sensor
Temperature Sensor Accuracy	-	±0.4 °C
Humidity Sensor Accuracy	-	±3%
Cable Length	-	10 m
Sensor Locations	-	Roof Space, External (Ambient) Internal (Living Space)

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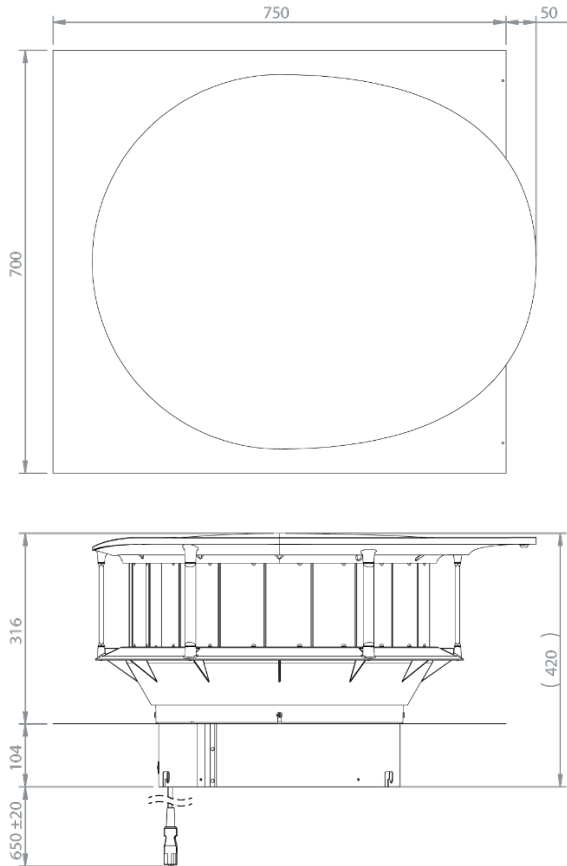
## Product Performance – Ventilator Flow Rate



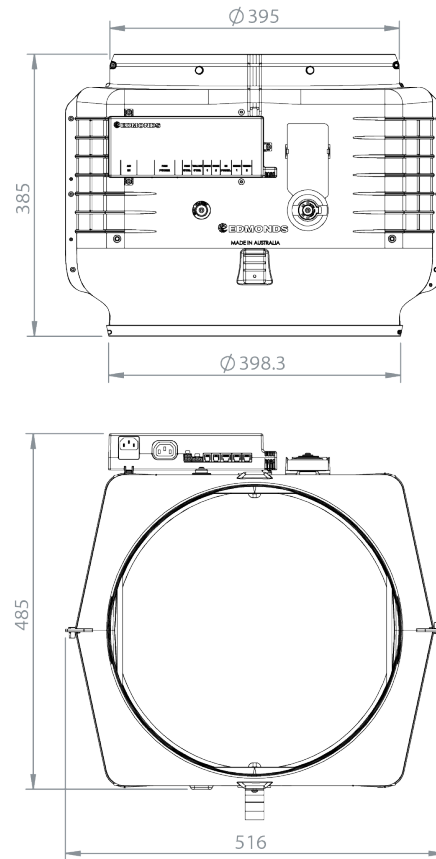
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## Product Dimension (in mm)

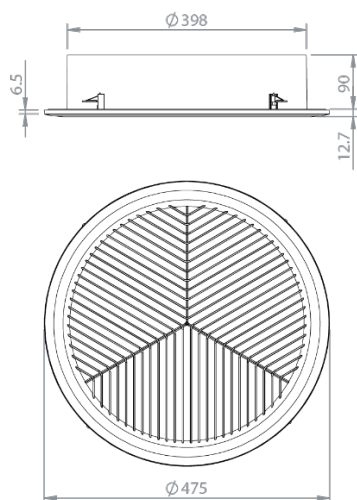
### Ventilator



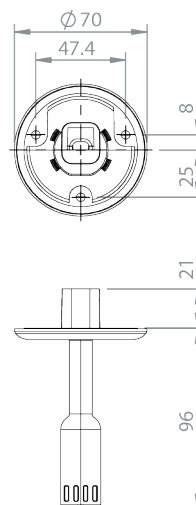
### Diverting Valve (HR2400 Only)



### Ceiling Grille



### Temperature and Humidity Sensor (HR2400 Only)



## Odyssey® Hybrid Roof Ventilator

### User Interface Panel (HR2400 Only)

