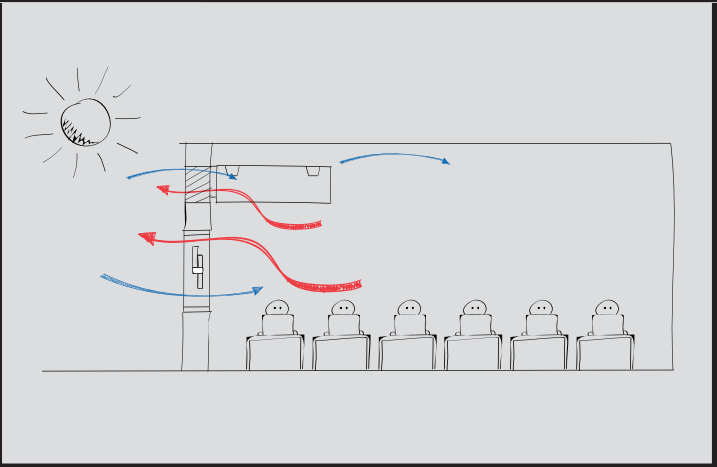


New unit,
new performance!
>540l/s per unit



NVHR[®] 1700

Façade-based mixing ventilation, offering enhanced natural ventilation in a slimline, compact and energy efficient unit

www.breathingbuildings.com

NVHR® 1700

The NVHR® 1700 is designed to fulfill the ventilation needs for a typical classroom or office environment. Doing this with a single unit, as opposed to a pair of smaller units, brings many advantages. Firstly, only a single aperture is required through the wall, which means only a single louvre is required, saving cost. Cabling is also simplified with a single switched fuse spur and no wiring required to other units. Less wiring reduces costs on site and also can eliminate opportunities for errors saving time on installation and commissioning.

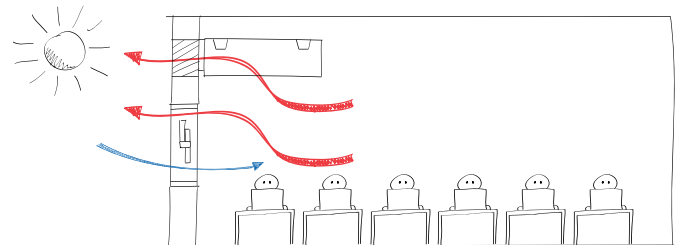
Key Points

- Designed to meet thermal comfort and air quality criteria of:
 - BB101 (2018)
 - DfE Annex 2F
 - CIBSE TM52
- Best in class flowrate, noise and energy consumption
- Acoustics: BB93 compliant for classrooms, science laboratories and art/technology rooms
- Modular design for ease of installation
- Robust draught mitigation system with multiple internal temperature sensors and independent exhaust and supply damper control
- Heat recycling strategy for winter ventilation
- Mid-season natural ventilation mode
- Summertime boost function
- Automatic secure night-cooling
- Easy to use controls with manual override
- Full BMS integration
- Includes room temperature and CO₂ sensor
- Easy to install with window or wall interface
- Installation options:
 - Exposed unit with integral low-resistance deflector grille (no ductwork required)
- Ultra efficient ventilation
- ErP compliant and CE certified
- Max Flow Rate now more than 540l/s per unit
- Ultra easy app based commissioning

Air Flow Strategies

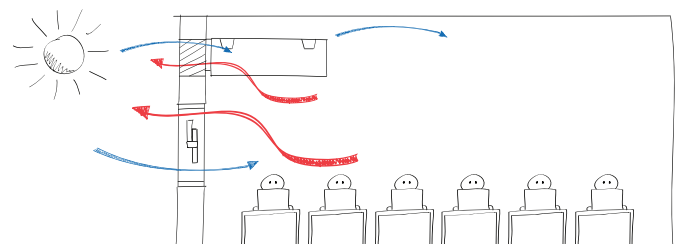
A Classroom Layout in Natural Mode

- Damper opens
- Single sided ventilation
- Works with other openings in the space



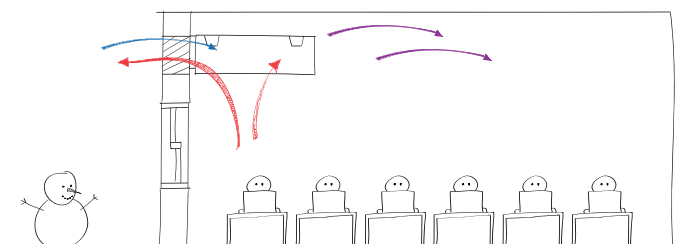
A Classroom Layout in Summer Boost

- Damper opens fully
- Air delivered to rear of the space
- Natural exhaust through the unit
- Night cooling
- Can be used on noisy sites to provide complete ventilation solution



A Classroom Layout in Winter Mixing

- Draught mitigation strategy
- Mixes warm room air with fresh external air
- Natural exhaust through the unit



Control Options

	Strategy						Ancillaries					
	Fully Automatic Operation	Manual Override	Winter Mixing	Natural Mode	Summer Boost	Secure Night Cool	BMS Integration	Heating/Cooling Interlock	Wall Mounted HMI	Open Windows Indicator	Room Temp/CO ₂ Sensor	External Temp Sensor
NV Smart+	•	•	•	•	•	•		◦	•	•	•	•
NV Smart+ Connected	•	•	•	•	•	•	•	◦	•	•	•	•*

• Included as standard ◦ Optional at additional cost * Unless provided by BMS

Product Information

Features

- Metal construction
- Bespoke colour option available on request
- Low energy mixing fan to mitigate against cold draughts in winter
- Summer boost mode
- Night cooling mode
- Room temperature sensor with integrated CO₂ sensor
- Internal mixed air temperature sensor
- Internal draught detection sensor in exhaust path
- External temperature sensor
- Ready fitted mounting brackets
- Interface for automatic operation; time override; long term off; test
- Wall sleeve or window interface option for easy installation

Options

- Automatic controls which respond to environmental conditions
- Weather louvre
- Additional sound attenuation for noisy sites
- Modbus and BACNet link for integration into wider Building Management Systems (BMS)
- More options coming soon!

Unit Performance

- **Summer Mode (<35dB)**
 - Fresh air flow rate = **326l/s per unit**
 - SFP = 0.09 w/l/s
- **Boost Mode (<40dB)**
 - Fresh air flow rate = **386l/s per unit**
 - SFP = 0.13w/l/s
- **Night Purge Mode (no noise limit)**
 - Fresh air flow rate **>540l/s per unit**
 - Higher flow rates available if needed
- Ask us for more data!

NVHR® 1700

User Interface Panel



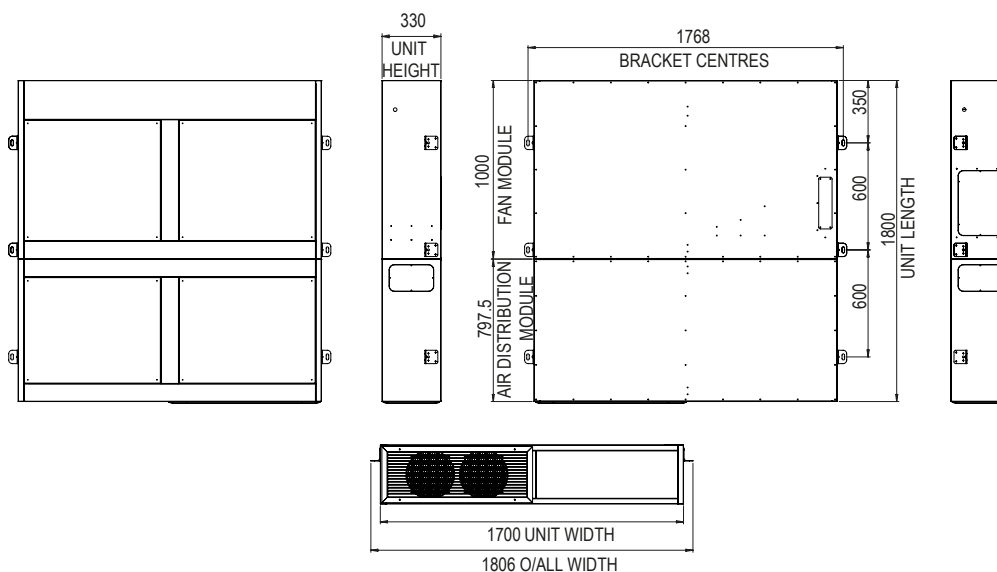
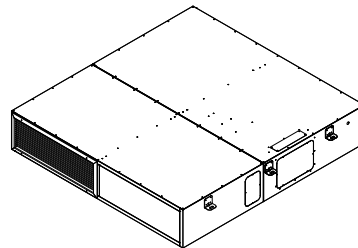
User interface panel with indicator lights for:

- Boost & Timer
- Sleep
- Open Windows Prompt
- Fault indication
- Dark mode for SEN rooms and distraction avoidance
- QR Code for easy access to user guide
- Bluetooth connectivity for App commissioning and tuning
- Digitally connected via cable for robust operation and right-first-time commissioning

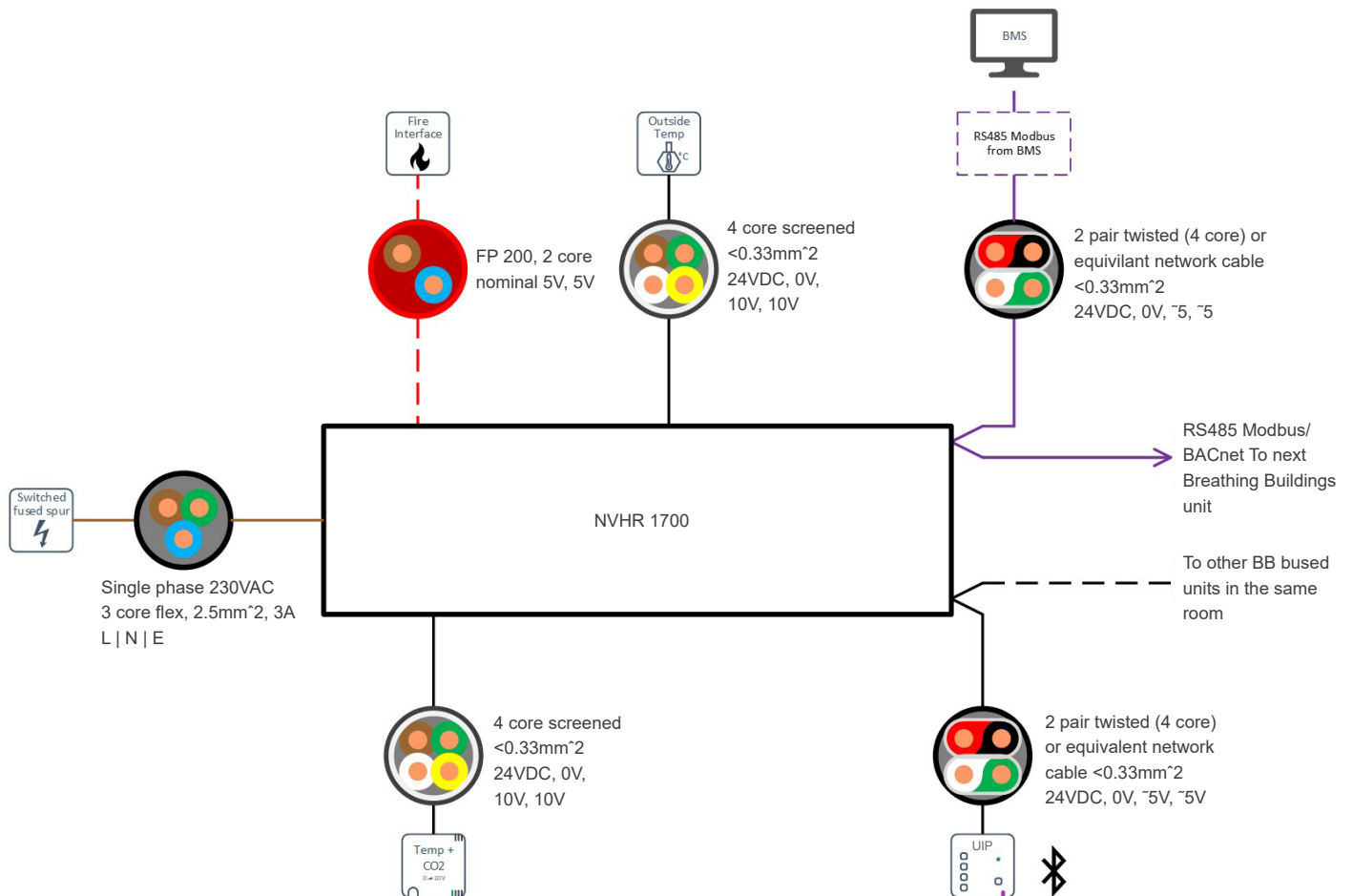
Dimensional Drawings

Dimensions

H	330 mm
D	1,800 mm
W	1,700 mm
Weight	130 kg



Illustrative System Schematic and Wiring



Contact Us

**Contact Breathing Buildings
dedicated design services team
to help you select the best product
solution to meet your application
requirements.**

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