

# HRV4 Q Plus

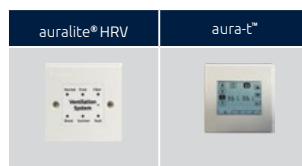
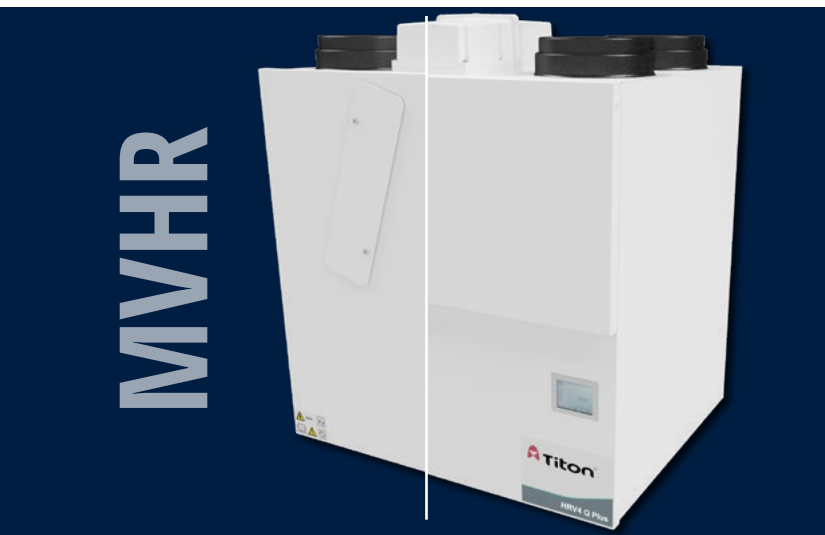
Ultra energy efficient Heat Recovery Ventilation unit

## For use in medium to large sized dwellings

Introducing the new HRV4 Q Plus: a powerful yet compact, continuously running whole-house ventilation unit with heat recovery. It is suitable for larger dwellings and has been independently tested by the BRE. The HRV4 Q Plus delivers cutting-edge performance usually only associated with much larger and more expensive products.

The combination of very low power consumption and a highly efficient heat exchanger is specifically designed to enhance SAP performance via Appendix Q, yet small enough to be easily incorporated into medium sized dwellings.

Recognised and listed in the UK Product Characteristics Database and includes intelligent humidity options through controller options.



## Features & Benefits

- Extremely low Specific Fan Power; down to 0.38 W/l/s
- Highly efficient heat exchanger; up to 91%
- Airflow up to 118 l/s (425 m<sup>3</sup>/h) at 100 Pa
- Intelligent controller, quick and easy to commission
- Fully adjustable boost overrun timer 0-60 minutes; use with non-latching (momentary) switches to prevent unit from being accidentally left in boost mode
- Accepts 150mm and 160mm diameter ducting, no adaptors required
- Intelligent frost protection (B2 and HMB), stepped reduction of supply air rates prevents HRV unit from freezing (B2 model only)
- Setback facility to reduce ventilation where local regulations allow
- ISO Coarse 85% (G4) filters as standard
- Quick fix mounting bracket
- IP32 rating
- Patented
- Independent fan adjustment
- Effective in reducing pollutants in the home and improving Indoor Air Quality (IAQ), therefore reducing
- Intelligent Summer Bypass & humidity controls
- SUMMERboost<sup>®</sup> facility

### Eco HMB Models:

- aura-t<sup>™</sup> controller available as standalone only
- Fitted with removable filter covers on the front panel

### Eco B2 Models:

- aura-t<sup>™</sup> onboard as standard
- Front panel; drop down filter flap panel or removable filter covers option available
- WiFi compatibility with aura-t SMART (WiFi) controller
- On site configured to either a LH or RH
- Full MODBUS connectivity
- BMS compatible via RS485 (subject to limitations, additional software requirements and specification with any order)
- Low voltage switching (x 3) and live switch (x 2)
- 4 x 0-10v proportional inputs for local demand control room sensors
- Duct Pre-heater control (requires independent power supply)

## Product Codes

HRV4 Q Plus Eco HMB aura-t™ ready -  
**TP421HMB/544** (left hand config) or  
**TP421HMB/RH** (right hand config) - Energy Rating A  
 Fitted with removable filter covers on the front panel

HRV4 Q Plus B2 aura-t™ control -  
**TP431B2/LR-T\*** (LH/RH on site configuration)  
 Fitted with removable filter covers on the front panel  
**TP431B2F/LR-T\*** (LH/RH on site configuration)  
 Fitted with drop down filter flap panel  
 - Energy Rating A+  
 \*Standard supply always LH

Filters:  
 ISO Coarse 85% (G4) filters fitted as standard.

## Standards

Conforms to requirements of UK statutory Building Regulations and Technical Standards for Ventilation and BRE 398.

SAP Appendix Q tested.

Exceeds requirements of Building Regulations Approved Document L (England & Wales).

EU RoHS Directive compliant.

Conforms to requirements of EC council directives relating to Electromagnetic Compatibility and Electrical Safety:  
 2006/95/EC (LVD), 2004/108/EC (EMC), EN 60335-1:2002/A2:2006, EN 60335-2-80:2003/A1:2004.

CE and UKCA marked.

## Specification

**Dimensions:** 600mm wide x 602mm high (excluding ports) x 477mm deep (487mm with mounting bracket)  
**Weight:** 28.5kg

**Finish:** White Paint (RAL9016 Semi-gloss Traffic White)

### Materials:

Housing: Zintec sheet steel housing, powder coated white

Internals: Expanded polypropylene (EPP)

Heat exchanger: Made from high quality PET materials  
 Internal insulation: Closed cell foamed Nitrile rubber, class 'O' fire rating

Standard filters: Grade ISO Coarse 85% (G4) synthetic filters.

**Guarantee period:** 3 years (UK only)

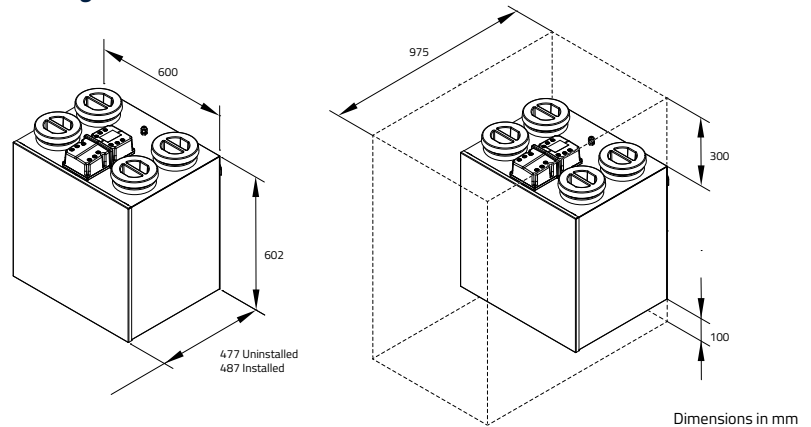
**Electrical:** 230V ~ 50/60Hz, 5A fuse

**Installation:** To be installed accordance with the relevant and applicable building regulations.

**Maintenance:** Service and filter clean/replacement subject to local environment - see product manual.

**Acoustics:** Full acoustic data available online [www.titon.com/acoustics](http://www.titon.com/acoustics).

## Drawing & Dimensions



## Performance

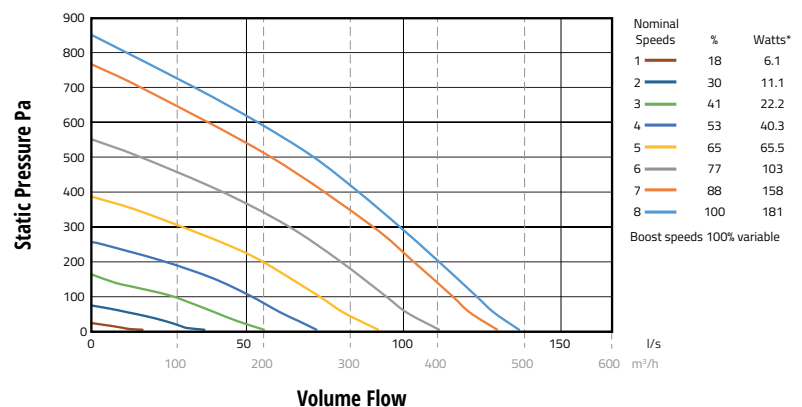
The figures and compliance levels below relate to current SAP requirements. Revised SAP guidance will have an effect on performance and up-to-date figures can be found on the relevant product page at [www.titon.com](http://www.titon.com).

| Exhaust terminal configuration*  | Fan speed setting | 2009        |                              | 2012        |                              | 10          |                              |
|----------------------------------|-------------------|-------------|------------------------------|-------------|------------------------------|-------------|------------------------------|
|                                  |                   | SFP (W/l/s) | Heat exchange efficiency (%) | SFP (W/l/s) | Heat exchange efficiency (%) | SFP (W/l/s) | Heat exchange efficiency (%) |
| Kitchen + 1 additional wet room  | 100% variable     | 0.41        | 91%                          | 0.42        | 91%                          | 0.42        | 91%                          |
| Kitchen + 2 additional wet rooms | 100% variable     | 0.38        | 91%                          | 0.43        | 90%                          | 0.43        | 90%                          |
| Kitchen + 3 additional wet rooms | 100% variable     | 0.4         | 90%                          | 0.5         | 89%                          | 0.5         | 89%                          |
| Kitchen + 4 additional wet rooms | 100% variable     | 0.45        | 89%                          | 0.6         | 88%                          | 0.6         | 88%                          |
| Kitchen + 5 additional wet rooms | 100% variable     | 0.51        | 89%                          | 0.73        | 87%                          | 0.73        | 87%                          |
| Kitchen + 6 additional wet rooms | 100% variable     | 0.58        | 88%                          | 0.9         | 86%                          | 0.9         | 86%                          |
| Kitchen + 7 additional wet rooms | 100% variable     | 0.7         | 87%                          | 1.08        | 86%                          | 1.08        | 86%                          |

Figures taken from the BRE Test Results.

\*Number of wet rooms is based on SAP Q test criteria and does not correlate directly with regulatory performance requirements.

## Nominal Fan Performance



\*@FID (0 Pa)

100% variable speed control. Performance curves for Eco version.

## Acoustic Data

| Product     | % of Max flow | Airflow          | dB(A) @ 3m Hemispherical |               |                 | dB(A) @ 3m Spherical |
|-------------|---------------|------------------|--------------------------|---------------|-----------------|----------------------|
|             |               |                  | Induct Inlet             | Induct Outlet | Casing Breakout | Casing Breakout      |
| HRV4 Q Plus | 41%           | 47.9l/s @ 15Pa   | 29                       | 37            | 21              | 18                   |
|             | 65%           | 80.4l/s @ 41Pa   | 38                       | 50            | 31              | 28                   |
|             | 100%          | 123.1l/s @ 100Pa | 46                       | 58            | 41              | 38                   |

For full frequency acoustic data at various speeds please see [www.titon.com](http://www.titon.com). All acoustic data is third party tested at Sound Research Laboratories (SRL) Ltd.