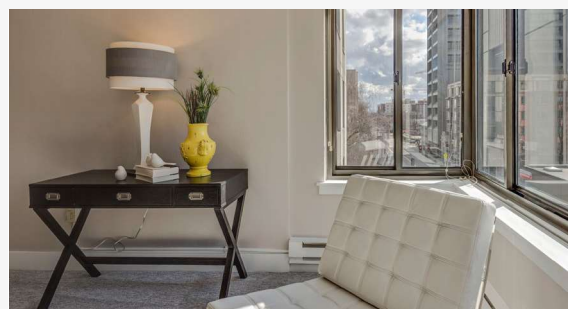


**HCV 700**

The HCV 700 is a highly efficient residential ventilation unit for houses, villas, and apartments of up to 450m² or more. It comes supplied as a packaged basic ventilation unit complete with built-in control panel, and are delivered with all parts necessary for wall installation. The HCV 700 is ideal for free wall installation with minimum 700mm space. A standard wall rail is supplied with all units.



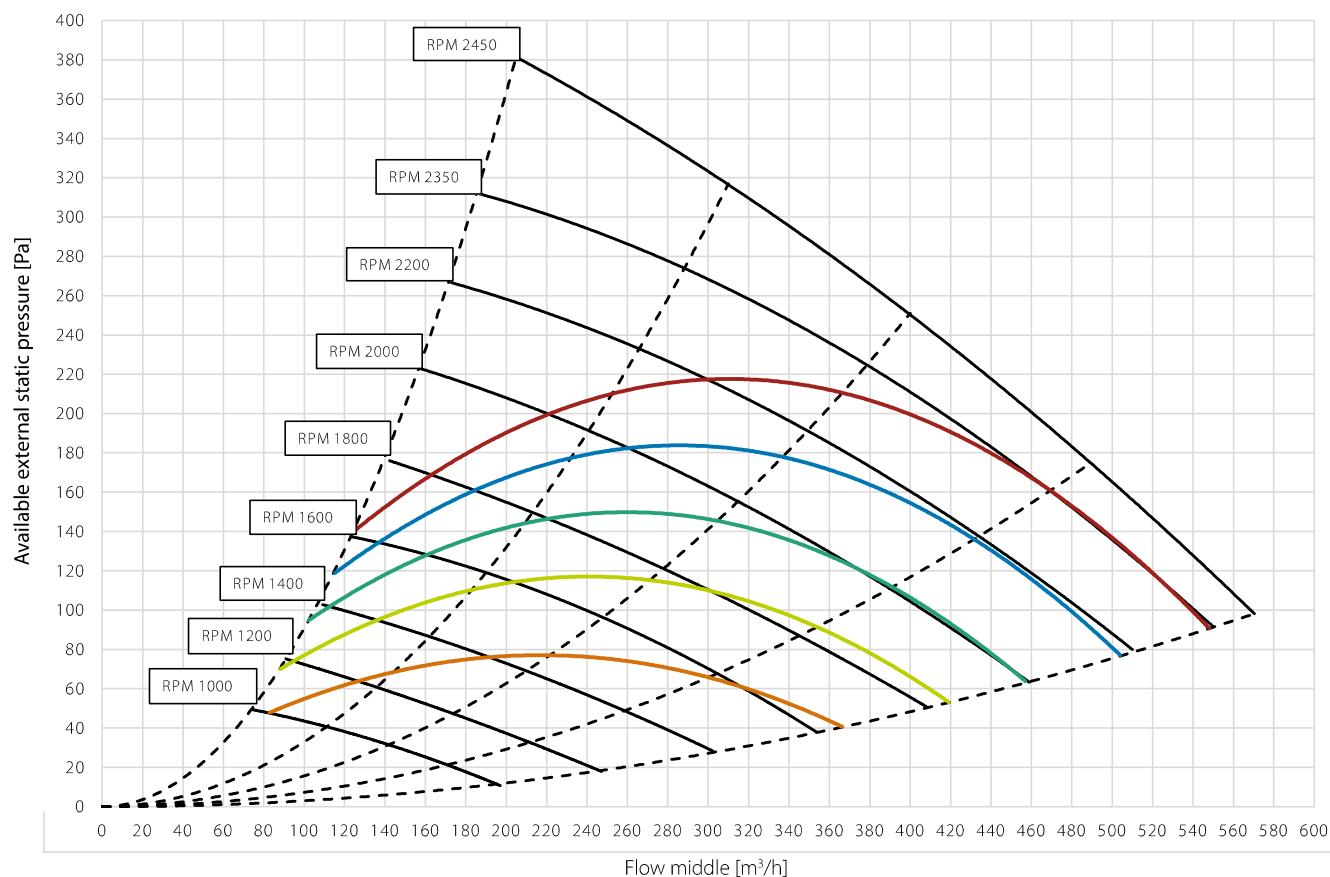
- Demand-controlled ventilation with integrated humidity sensor, reducing power consumption at times with low ventilation demands
- Summer mode, in which supply fan is stopped and any open window will supply cooler outside air, lowering the room temperature
- Automatic free-cooling features via inbuilt 100% by-pass, including the possibility of increasing the air flow automatically, lets in cool night air following hot days to help maintain a comfortable temperature throughout the day
- Fireplace mode, creating a temporary inside overpressure, to enhance chimney functionality
- High-efficiency heat recovery
- EC fan motors with extremely low energy consumption (low SPI)
- Easy-to-install and commission solution with built-in air pressure spigots for easy calibration
- Highly customisable units, with the option to add a high variety of internal as well as external accessories
- A standard wall rail is supplied with the unit

Third party testing and certifications

| Code | Description |
|----------------------|--|
| PHI Pending | Passivhaus certified |
| DIBt Pending | Certified by the German Institute of Construction Technology |
| EPB | Listed in the database for Energy Performance of Buildings in Belgium |
| ErP | Compliant with EU regulations for Eco-design |
| Nordic Swan Ecolabel | Listed in the Nordic Swan database for products suitable for Ecolabelled buildings |

| Specifications | Units | | HCV 700 |
|--|-------------------------|--------|--|
| Maximum achievable flow at 100Pa | V100Pa | m³/h | 550 |
| Maximum declared flow at 100Pa | V _{max, rated} | m³/h | 450 |
| Recommended operating range | V | m³/h | 80-450 |
| EN 13141-7 reference flow at 50Pa | V _{ref} | m³/h | 315 |
| Performance | | | |
| Thermal efficiency in accordance with EN13141-7 | η _{SUP} | % | 85 |
| Specific power consumption in accordance with EN13141-7 | SFP | W/m³/h | 0.22 |
| Leakage (external and internal) in accordance with EN13141-7 | - | % | <2% (Class A1) |
| Filters in accordance with ISO16890 | - | - | ISO Coarse 75% (optional on supply: ePM1>50%) |
| Filters in accordance with EN779 | - | - | G4 (optional on supply: F7) |
| Installation ambient temperature | t _{surp} | °C | +12 to +50 |
| Outdoor temperature range without preheater installed | t _{ODA} | °C | -12* to +50 |
| Outdoor temperature range with preheater installed | t _{ODA} | °C | -20 to +50 |
| Maximum absolute humidity in extract air | x | g/kg | 10 |
| Cabinet | | | |
| Dimensions (without wall bracket) | w x d x h | mm | 700 x 750 x 1050 |
| Spigots/duct connections | Ø | mm | 200 – female |
| Weight | | kg | 70 |
| Thermal conductivity – polystyrene insulation | λ | W/mK | 0.031 |
| Heat transition figures – polystyrene insulation | U | W/m²K | <1 |
| Fire classification of the polystyrene insulation | - | - | DIN 4102-1 class B2 EN 13501 class E |
| Drainage hose | Ø/length | "/m | ¾/1 |
| Cabinet colour | RAL | - | 9016 |
| Electrical | | | |
| Voltage | U | V | 230 |
| Maximum power consumption (without/with preheater) | P | W | 234/1,834 |
| Frequency | f | Hz | 50 |
| Protection class | - | - | IP21 |

* The use of the preheating coil is recommended at outdoor temperature below -3°C to ensure balanced operation.

Capacity and SPI curves with G4/G4 filters

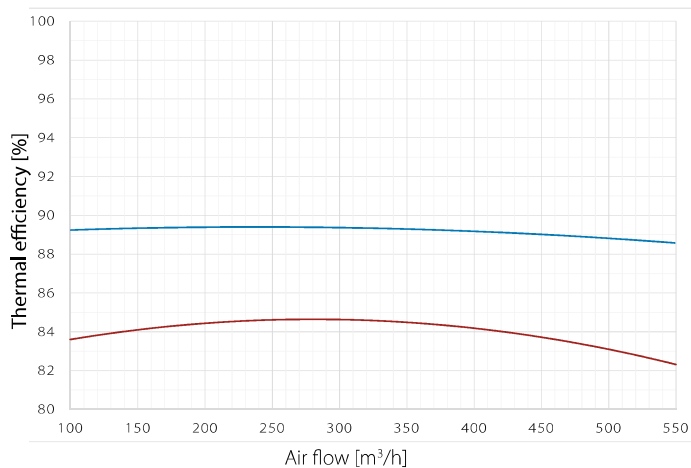
| SFP/SPI/SEL* | 0.45 W/m³/h | 0.39 W/m³/h | 0.33 W/m³/h | 0.28 W/m³/h | 0.22 W/m³/h |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| | 1620 J/m³ | 1400 J/m³ | 1200 J/m³ | 1000 J/m³ | 800 J/m³ |
| | 1.62 W/l/s | 1.40 W/l/s | 1.20 W/l/s | 1.0 W/l/s | 0.80 W/l/s |

* SFP/SPI/SEL includes power consumption of both fans and the control.

Thermal efficiency curves**Legend**

- Thermal efficiency according to EN 13141-7 (dry)
Operational conditions: outdoor air: 7°C, 85% RH; extract air: 20°C, 37% RH
- Thermal efficiency according to EN 13141-7 (with condensation)
Operational conditions: outdoor air: 2°C, 87% RH; extract air: 20°C, 60% RH

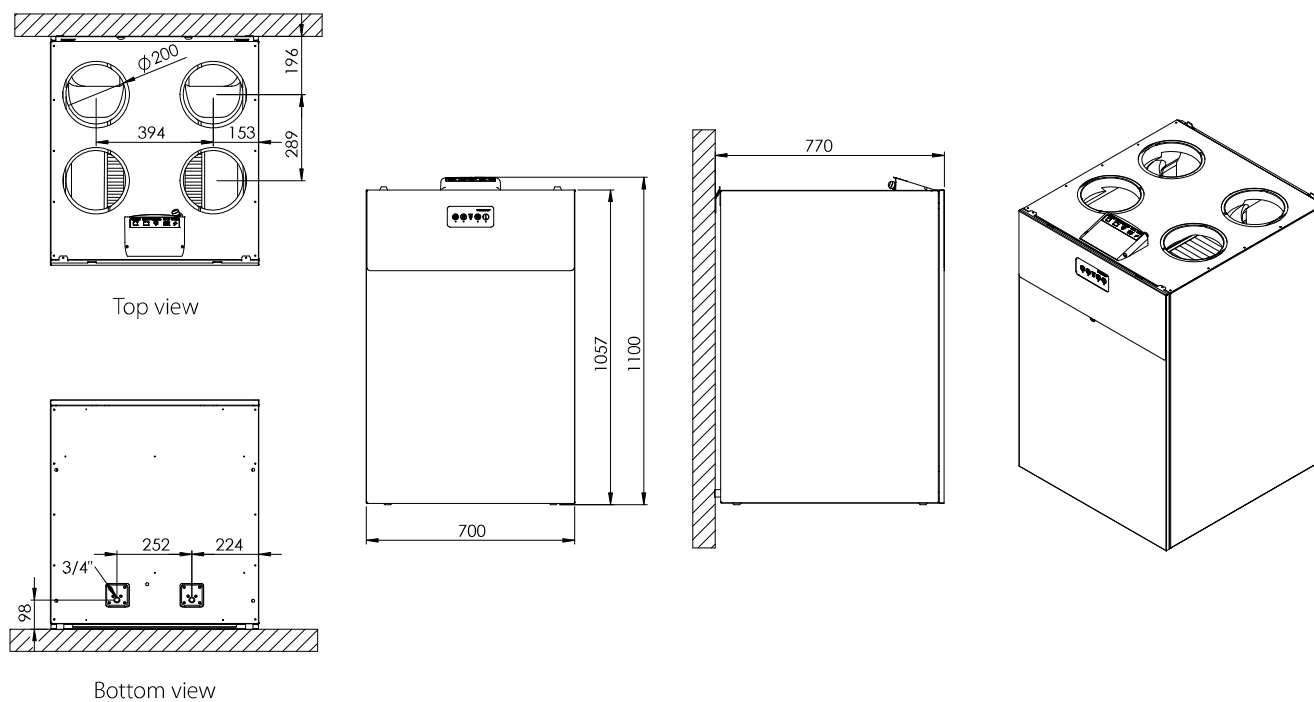
All values at balanced flow



Sound data with G4/G4 filters

| Air volume m ³ /h | Pres- sure Pa | Operatio- nal point | Frequency band sound power Lw(A) dB(A) | | | | | | | | Total sound power Lw(A) dB(A) | Sound pres- sure standard room* Lp(A) dB(A) |
|---------------------------------|---------------------|------------------------|---|-------|-------|-------|--------|--------|--------|--------|-------------------------------------|--|
| | | | 63Hz | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | 8000Hz | | |
| 350 | 100 | Supply air | 54 | 55 | 64 | 57 | 53 | 45 | 35 | 27 | 65.5 | |
| | | Extract air | 63 | 62 | 68 | 63 | 56 | 52 | 44 | 34 | 71.1 | |
| | | Cabinet | 36 | 45 | 55 | 52 | 50 | 43 | 28 | 20 | 57.8 | 53 |

Dimensions



Revit files are available for free on request. Contact your local supplier or Dantherm for access.