

DC wholehouse heat recovery units



An integrated, new generation, high efficiency wholehouse heat recovery system is by far the most efficient ventilation solution for new 'tight' buildings.

Key features

- **Type:** Mechanical ventilation with heat recovery
- **Application:** Wholehouse system
- **Control options:** 3 speed
- **Legislation:** Building Regulations BRE Digest 398 (1994)

The range

- Meeting improved energy efficiency requirements for new homes combines efficient heating, insulation, better air tightness and a controlled ventilation strategy.
- An integrated, new generation, high efficiency wholehouse heat recovery system is by far the most efficient ventilation solution for new 'tight' buildings.
- A 90% efficient wholehouse heat recovery unit for properties with a volume of between 600 and 900m³.
- The Xpelair Xcell 300 and 400 are ideal for larger properties in order to meet the half an air change per hour requirement.
- As the extract points are in the 'wet rooms' – bathrooms, en-suites, cloakroom and kitchen, the air change rates in these individual rooms will be substantially higher.
- At the heart of the unit is a 90% efficient heat recovery cell which transfers the heat from the outgoing exhaust airflow to the incoming fresh air whilst keeping the two flows separated.
- As the temperature of the outgoing air drops, it reaches dew point and gives up condensate.
- The warming process to the incoming air reduces it's RH ensuring a fresh, condensation free indoor environment.
- The unit features LongLife DC motors designed for continuous operation and exceptionally low running costs.
- The unit design allows the outlet spigots to be set vertically or horizontally to suit site conditions.
- The unit is fitted with two cell pre-filters which are user accessible from the outside and without having to isolate the unit.



Models

- **Xcell 300 Ref. 91267AW: 300m³/h MVHR Unit at 200Pa**
- **90% efficient heat transfer cell**
- **Corrosion resistant aluminium construction**
- **Automatic defrost protection**
- **Longlife low noise backward curved dc motor/impeller sets**
- **Integral condensate drain and pipe**
- **Vertical and horizontal option separately at all spigots**
- **150mm spigots accept Xflex TFD insulated duct or Profile 150 duct**
- **Neon function indicator**
- **Two user accessible G3 cell pre filters that are washable**
- **Polypropylene casing, fire retardant to class B1/B2**
- **Cold bridging free**
- **Internal acoustic insulation**
- **Finished in RAL 9002 White**
- **Fitted with flying lead**
- **Xcell 400 Ref. 91269AW** Features over the Xcell 300
- 400m³/h MVHR unit at 150Pa
- 180mm spigots accepts Xflex TFD insulated duct or Profile 150 duct
- Test data
- Efficiency independently tested to NEN 5138 by TZWL. Efficiency 91% with an energy usage of 47W
- **Summer bypass Xcell 300BP Ref. 91268AW, Summer bypass Xcell 400BP Ref. 91270AW** Features over the Xcell 300/400 Units with factory fitted summer bypass are available to special order. Includes automatic control which opens bypass when the outside temperature is over 15°C and the inside temperature is over 20°C

Technical specification

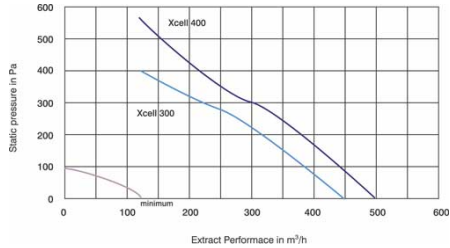
- **XCELL 300 & 400**
- The unit is to be supplied from the Xpelair Xcell range by Applied Energy Products Ltd. Morley Way Peterborough PE2 9JJ
- Tel. +44 (0)1733 456789
- Model / Ref
- Xcell 300 91267AW
- Xcell 400 91269AW
- Xcell 300BP 91268AW
- Xcell 400BP 91270AW
- The MVHR unit shall be designed for installation in well insulated dwellings
- The unit shall be wall mounted using a wall bracket and provided with 150mm duct spigots on the 300 models and 180mm duct spigots on the 400 models ready for connection to supply and return air ducts and ductwork to a wall or roof terminations
- The cabinet shall be manufactured in polypropylene to RAL 9002: White
- The inner components and scroll shall be made from non hygroscopic high density structural foam mouldings with an integral double condensate tray. Provision shall be made for alternative condensate drain off points
- Access shall be provided to the stage 1 G3 filters. The unit shall have a choice of speeds to match the volume of the dwelling in order to provide half an air change per hour continuous ventilation including the choice of a boost speed if required. As a result the heat recovery cell shall be up to 91% efficient - certified by TZWL, depending on chosen speed. The fans shall be electronically balanced to provide equal extraction and air supply
- The motors shall be LongLife DC motors with maintenance free greased for life ball bearings
- A supply lead shall be provided to facilitate wiring
- **Overall Dimensions HxWxD:** 600x740x540mm
- Weight :32kg

Product variations

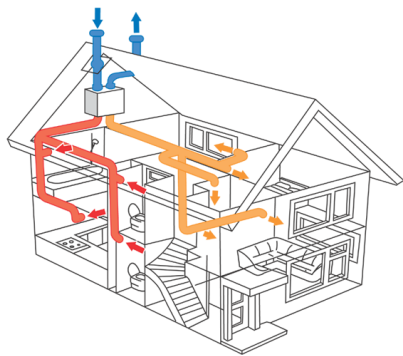
	Xcell 400BP	Xcell 400	Xcell 300BP	Xcell 300
Reference number	91270AW	91269AW	91268AW	91267AW
Max house volume (m ³)	800	800	600	600
Summer bypass	yes	no	yes	no
Longlife dc motor	yes	yes	yes	yes
Efficiency (%)	90	90	90	90
Speeds selected during installation	3	3	3	3
Typical performance (m ³ h) - high	400	400	300	300
Typical performance (m ³ h) - med	200	200	200	200

Typical performance (m ³ h) - low	100	100	100	100
Max static pressure (Pa) - high	150	150	200	200
Max sound pressure (dBA@3m) - high	51	51	45	45
Power (W) - high	241	241	185	185
Power (W) - low	31	31	47	47
Roof space fitment	yes	yes	yes	yes
Spigot (mm)	180	180	150	150
Colour	white	white	white	white
Weight (kg)	32	32	32	32
Guarantee (years, UK)	5	5	5	5

Xcell 300:

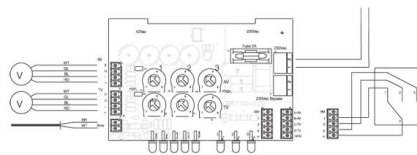


Performance:



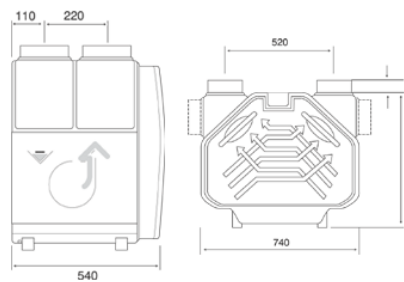
Schematic diagram of a typical wholehouse MVHR installation

Installation:



Wiring:

Xcell 300/400



Dimensions: All dimensions in mm