

Note!! Condensate Drain Connection

The unit's Condensate Drain Pipe should be connected to **6mm ID flexible pipe** to take any condensation to a convenient drainage route - e.g. out to gutter, out of a wall, to the soil pipe or other drainage pipe, (when the condensate is fed into mains drainage ensure there is a trap so that foul gas does not come into the home) The Condensate Drain is situated on the base of the unit and the pipe should be connected to the spout and adequately secured with a worm drive clip or similar. The condensate drain pipe should be insulated if any part of the pipe passes through an unheated area or void. As a guide the minimum fall should be not less than 5°.

High Efficiency Mechanical Ventilation with Heat Recovery

Manual

WWW.BOULDERDEVELOPMENTS.COM
PHN:0044(0)1 636 63 99 00

Note: hanging rods are an optional extra

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introduction

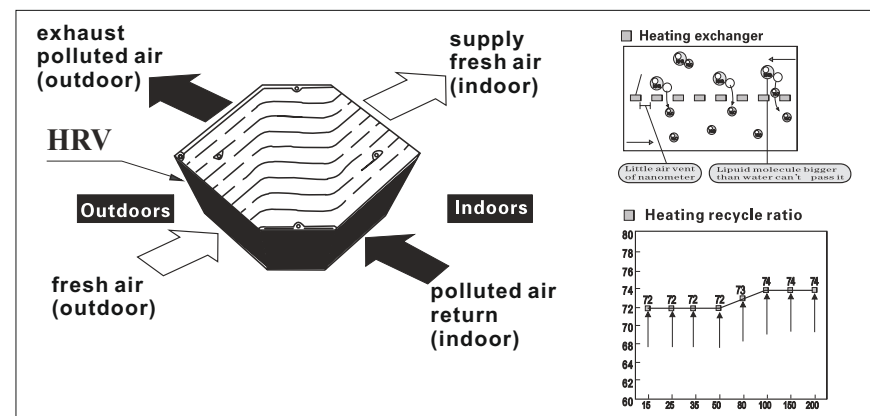
Air quality is highlighted as a key factor to ensuring the maintenance of a healthy environment whether in the home, the office or the great outdoors. Dedicated MVHR(Mechanical Ventilation with heat Recovery) systems are designed to offer a high level of comfort whatever the environment through the continuous extraction of stale air from those areas producing heat and moisture whilst supplying fresh filtered air to living spaces and bedrooms.

Suitable for use in both domestic and commercial environments the Boulder Developments MVHR unit offers efficiencies up to 90% with variable speed options to maintain the air quality around you.

System Benefits

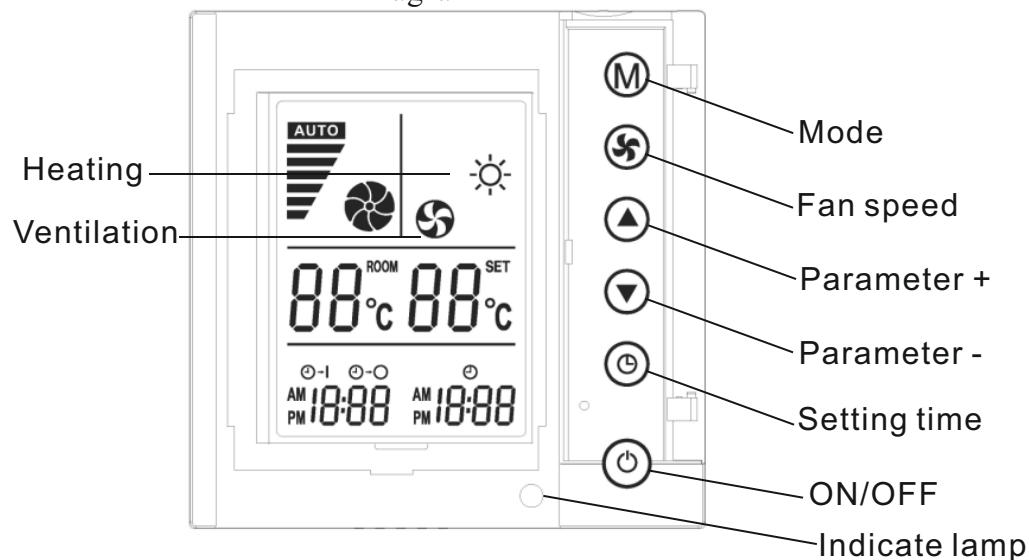
- Creates a comfortable and healthy living experience
- Contributes to improving energy efficiency
- Controls humidity levels
- Improves air quality throughout the property

Diagram - The Heat Exchange Principle



Controlling the MVHR

Diagram



⚠ Installing and Operating the MVHR safely

Please take note of the following safety practices in the installation and operation of a MVHR:

- Check the power requirements before connecting;
- For safe continuous operation it is suggested that the unit be connected to a dedicated fused spur
- If the property is to be left empty for a lengthy period you should power down the unit.
- If there is inconsistent performance of a fan or excessive noise, shut down the unit and seek assistance.
- All repairs to be completed by a qualified person.
- In instances where there is a spillage of flammable liquids or a gas leak shut down the unit and open windows/doors etc.

Sizing a MVHR system for your Project

Sizing the most appropriate system for your property is based on a calculation prescribed in Part F of UK Building Regulations. This calculation is based on achieving a whole house ventilation rate that is measured in litres per second or m3/hr. In public places and commercial venues the calculation is also influenced by the capacity (number of people) and the nature of use;

Domestic property

3 bed, 120sqm, with 1 x kitchen, Utility and 2 bathrooms

Min extract rate required $13 + 8 + 8 + 8 = 37$ litres/sec

Whole house ventilation rate = $120 \times 0.3 = 36$ Litres/ sec

min rate /hr required = 133M3/hr

Unit required DHV 15B 110m3/hr to 150m3/hr

performance data

Model Number	fan motor power Rated (W)	air volume(M3/h)	Heat recovery efficiency (heating)	Noise (dBA)	Spigots dia (mm)	weight (kg)
DHV-04/100B	40	100/40	75%/69%	29	100	4.5
DHV-15B	60/50	150/150/110	86%/83%/78%	38	100	19
DHV-20B	68/52	200/150/110	87%/81%/77%	39	150	19.5
DHV-25N	105/100/80	250/250/160	87%/83%/76%	35	150	33
DHV-35N	140/125/115	350/350/270	86%/82%/77%	36	150	38
DHV-50N	190/175/150	500/500/360	87%/83%/77%	38	200	54

For specification data on larger systems please call on 01636 639900 or visit our website www.boulderdevelopments.com

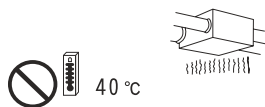
Installation guide

Positioning your MVHR

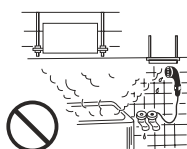
- Ensure your main MVHR unit is installed within the insulation envelope of the property. If this is not possible then care must be taken to provide sufficient insulation around the location to avoid condensation within the unit.
- Units are designed to sit on joists or plinth or be suspended from rafters
- Allow sufficient space (at least half the width) of the unit to access and remove heat exchangers/filters for routine maintenance
- Allow sufficient clearance both above and below if fitted in a roof void for air to circulate around the unit.
- All ducting connecting to the outside wall or roof vents should be insulated.
- External vents (exhaust out and fresh air in) should be positioned at least 1 metre apart (horizontal plain)
- Seal ducting, spigot, inlet, outlet joints with tape to prevent leakage

Places to avoid in positioning the MVHR unit::

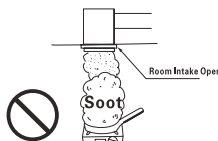
High temperature environments
- temperatures greater than 40 degrees will damage the heat exchanger and filters



WET room

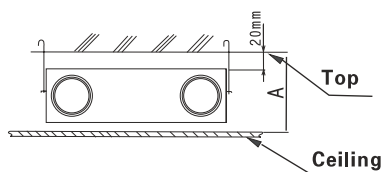


Commercial environments involving chemicals and high temperatures



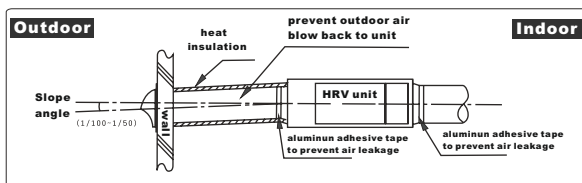
Duct installation

Make sure the height between the ceiling and the top are not less than the height shown in the following table:

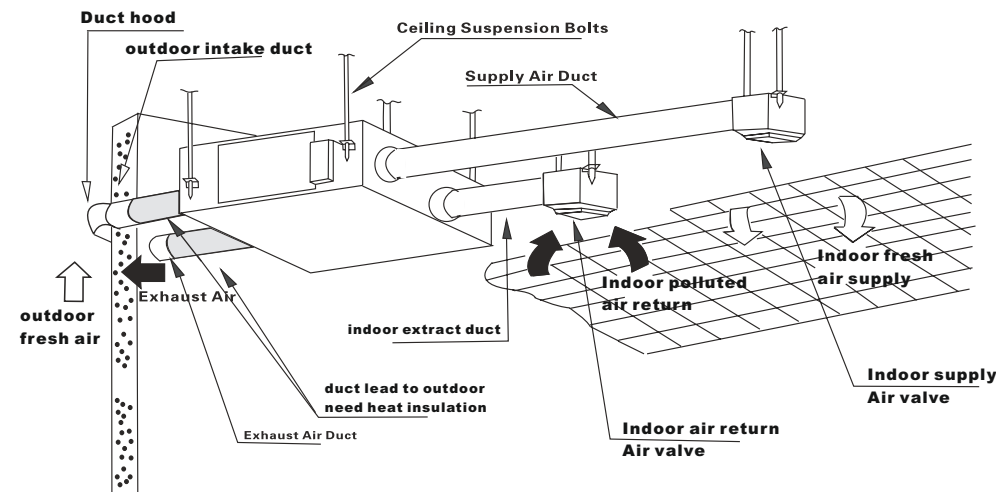


Model	Height between ceiling and top (mm)	Model	Height between ceiling and top A (mm)
DHV-15B	290	DHV-35N	320
DHV-20B	290	DHV-50N	320
DHV-25N	320	DHV-100N	440

- To prevent freezing, ducts leading to the outside should be insulated
- Duct joints should be sealed with tape to prevent air leakage.

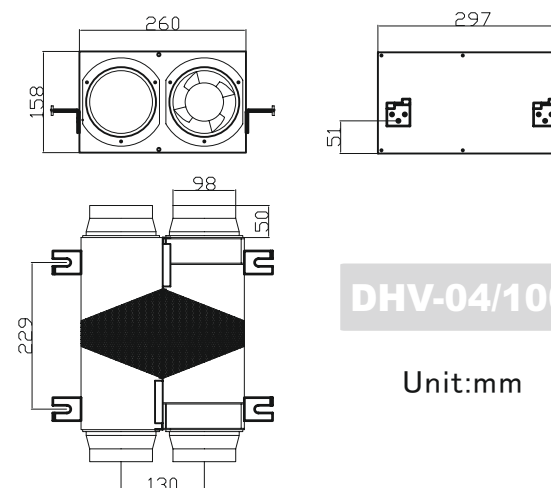


Installation diagram



Note!
Ducts to external vents (outdoor fresh duct and exhaust duct) must be insulated.

Unit dimension

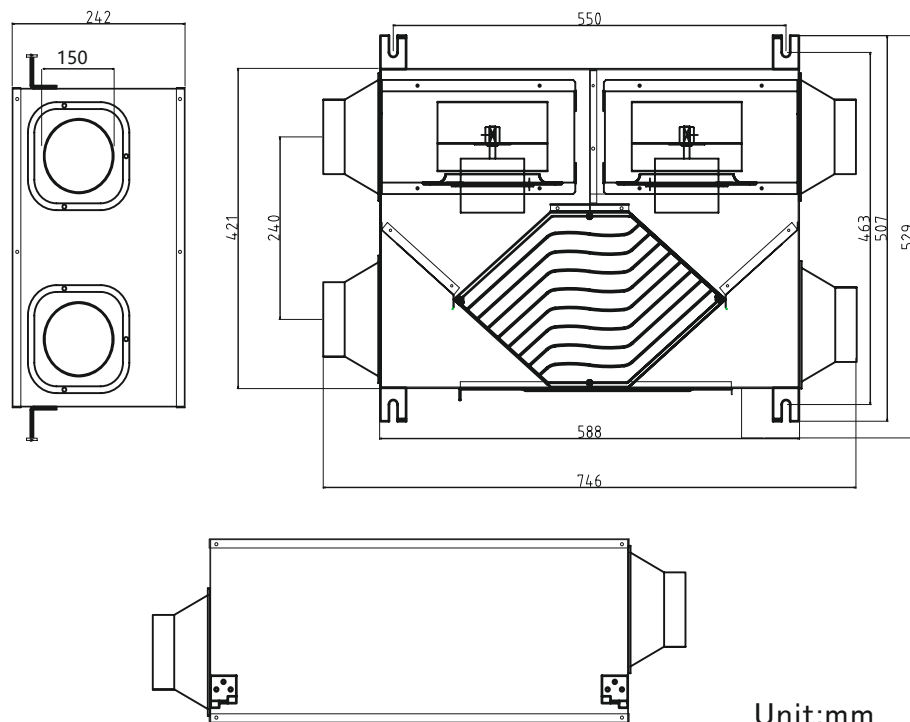


DHV-04/100B

Unit:mm

We reserve the right to change product specifications at anytime without notice.

Unit dimension

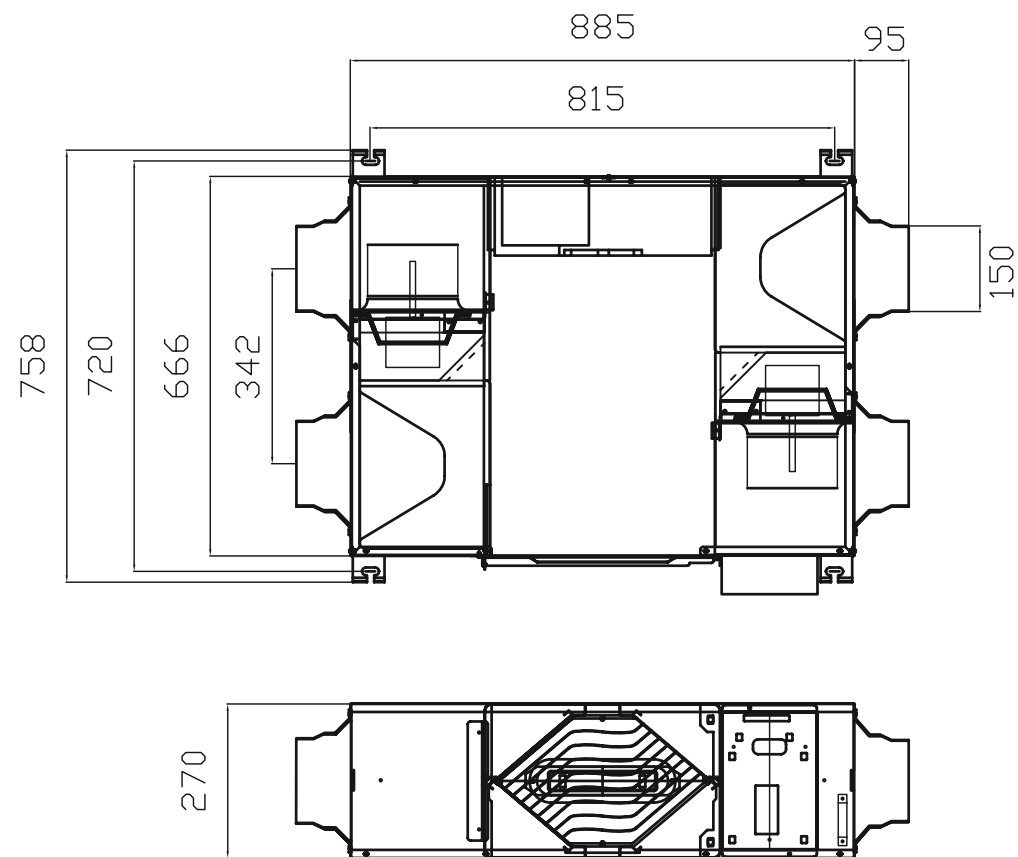


Unit:mm

DHV-15B,DHV-20B
DHV-15B(H),DHV-20B(H)

We reserve the right to change product specifications at anytime without notice.

Unit dimension

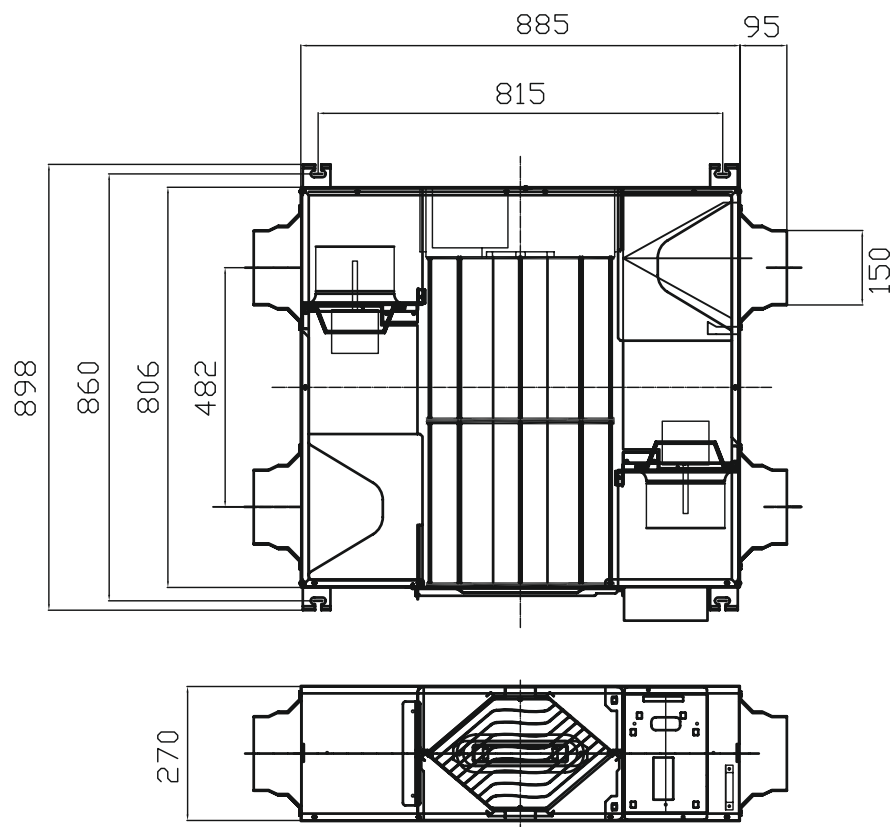


Unit:mm

DHV-15B(BP.H),DHV-20B(BP.H)
DHV-25N(BP.H)
DHV-15B(BP),DHV-20B(BP)

We reserve the right to change product specifications at anytime without notice.

Unit dimension

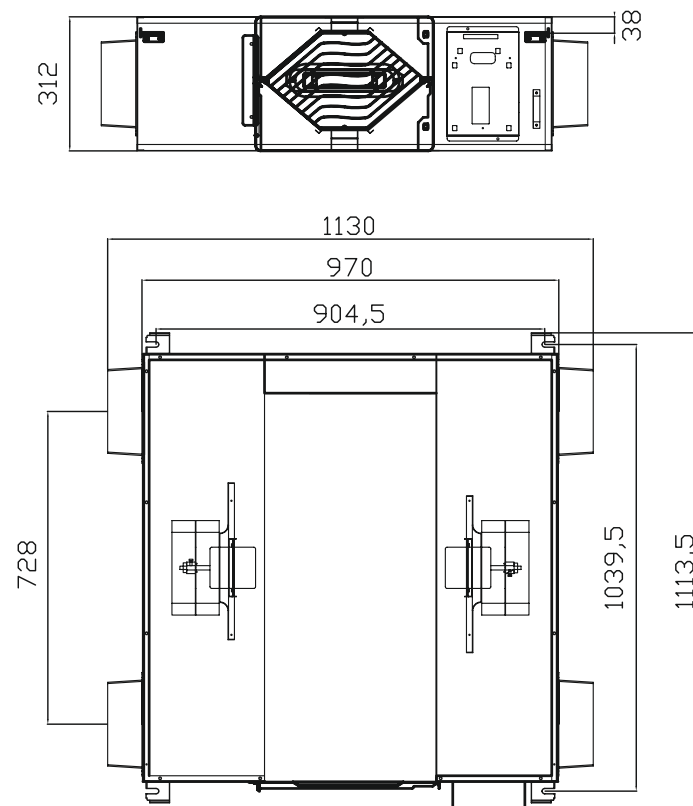


Unit:mm

DHV-35N,DHV-35N(BP)
DHV-35N(H),DHV-35N(BP.H)

We reserve the right to change product specifications at anytime without notice.

Unit dimension

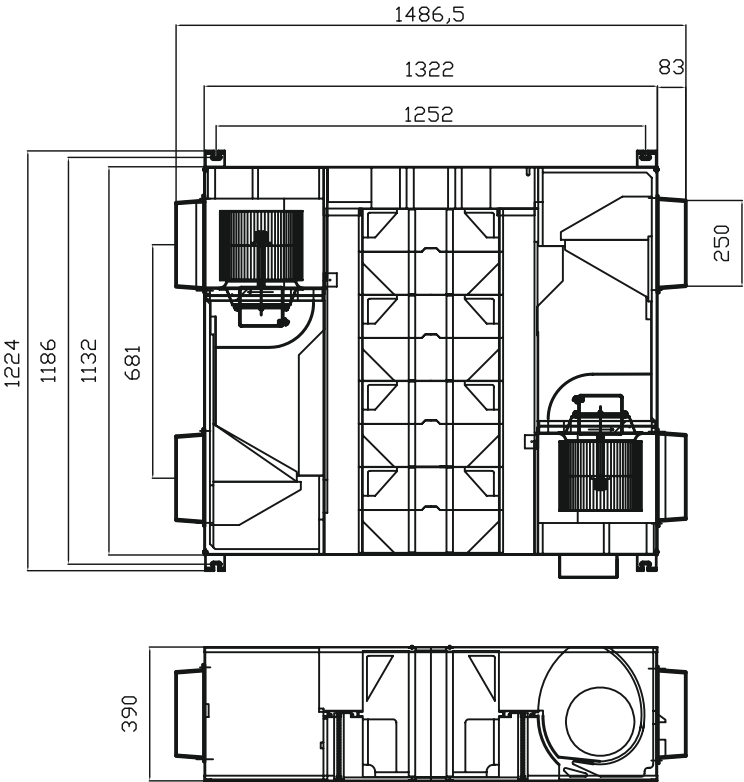


Unit:mm

DHV-50N,DHV-50N(BP)
DHV-50N(H),DHV-50N(BP.H)

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Unit dimension



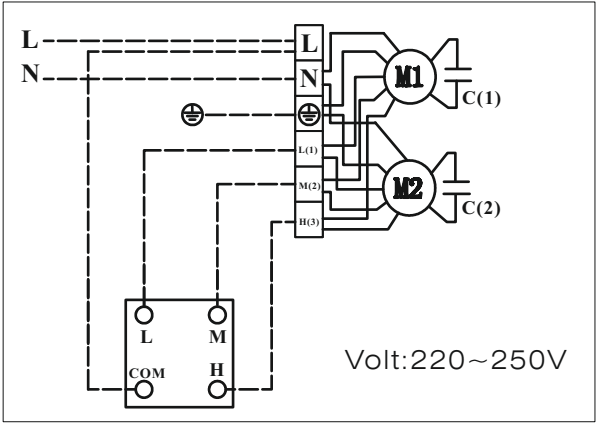
Unit:mm

DHV-100N
DHV-100N(BP),DHV-100(H)

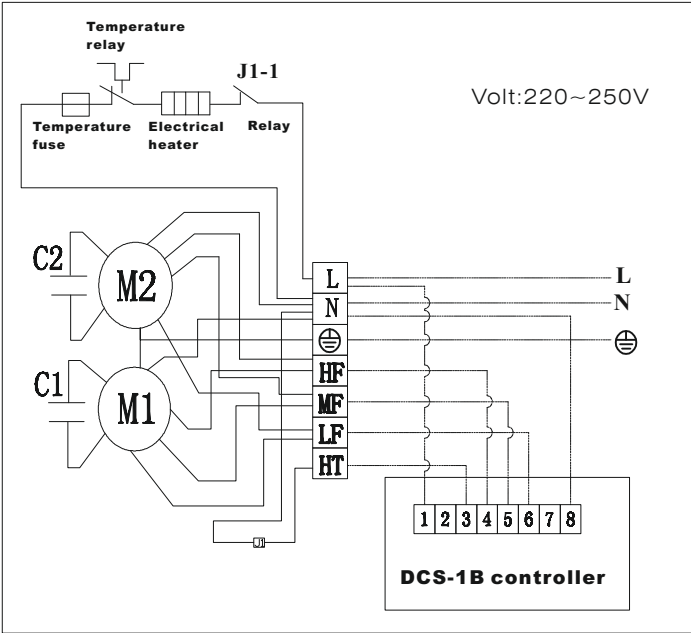
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Controller wiring

simple 3 speed switch wiring(DCS-3S)

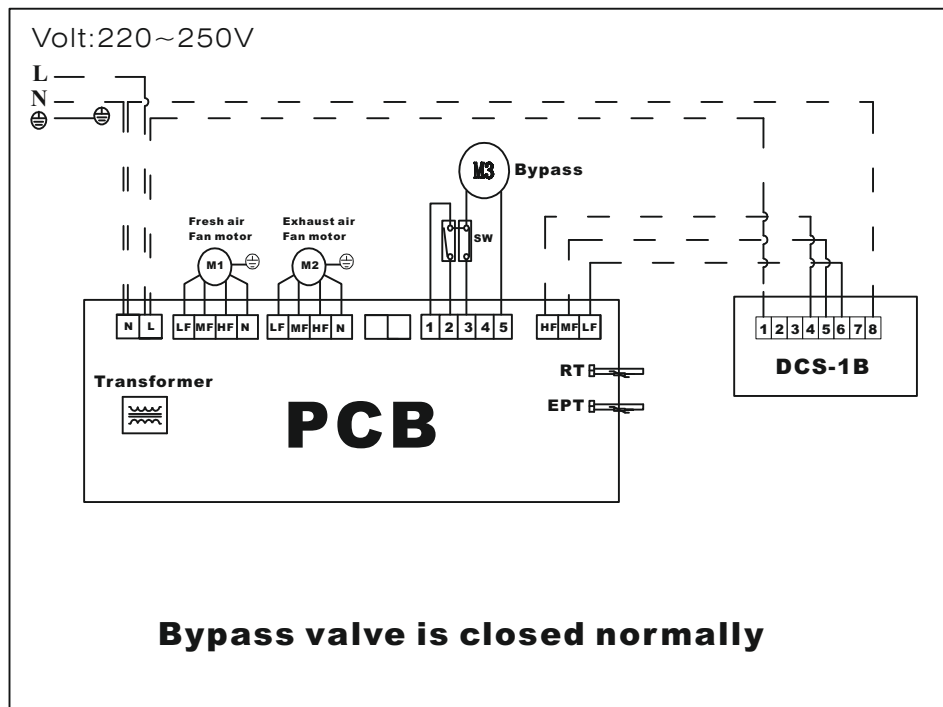


LCD controller wiring(DCS-1B) for Unit with electrical preheating



Controller wiring

LCD controller wiring(DCS-1B) for Unit with bypass



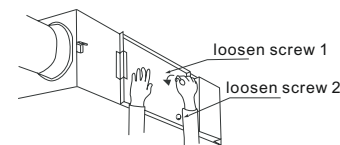
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Maintenance

- Turn off the MVHR before commencing maintenance
- Clean filters and heat exchanger regularly
- Do not attempt to clean the heat exchanger core or filters with a metal brush

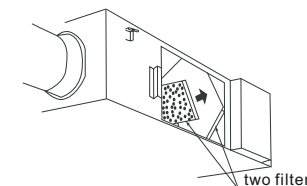
1 Open maintenance door

Loosen the two screws on the maintenance door



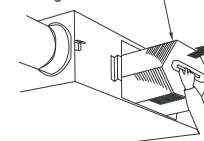
2 Pull out the two filters

Two filters against the heat exchanger core



3 Pull out the heat exchanger

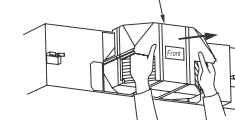
heat exchanger



unit smaller than 800m³/h

3 Pull out the heat exchanger

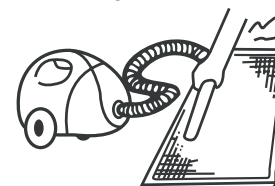
heat exchanger



unit bigger than 800m³/h

4 Use vacuum cleaner

Clean the filters by vacuum cleaner



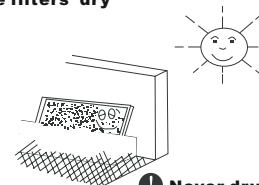
4 Washing filter

Use neutral and temperature less than 60 °C water to clean the filters



5 Drying filter totally

Install the filters back to the units after the filters dry



⚠ Never dry filters by fire

6 Clean heat exchanger

use vacuum cleaner to clean heat exchanger



⚠ Never wash it by water

BOULDER DEVELOPMENTS LTD

products warranty card

www.boulderdevelopments.com
Email:sales@boulderdevelopments.com

Model number:

Date of purchase:

Customer:

Name:

Address:

Telephone:

Unit serial No:

warranty:

3 year system warranty including 12 months from date of purchase on all moving parts.

Maintenance record

Maintenance date:

Maintenance item:

Replacement components:

Maintenance staff signature:

User signature:

Maintenance date:

Maintenance item:

Replacement components:

Maintenance staff signature:

User signature:

Maintenance date:

Maintenance item:

Replacement components:

Maintenance staff signature:

User signature: