Balanced Ventilation With Spot ERV

Winter

Outside

Inside

Summer

Optional Accessory – Exterior Wall Cap
WhisperComfort's FV-WC04VE1 polypropylene wall cap accessory with styrofoam adaptor conveniently allows both exhaust (from the right) and supply (from the left) airflow through a 5.5”-5.75” hole in the building envelope. The dividers inside the Y chamber and wall cap prevent cross contamination.

Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>FV-04VE1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40 CFM</td>
</tr>
<tr>
<td>Static pressure in inches w. g.</td>
<td>0.1</td>
</tr>
<tr>
<td>Air Volume Exhaust (CFM)</td>
<td>40</td>
</tr>
<tr>
<td>Air Volume Supply (CFM)</td>
<td>30</td>
</tr>
<tr>
<td>Noise (sones)</td>
<td>&lt;0.3</td>
</tr>
<tr>
<td>Power Consumption (Watts)</td>
<td>23</td>
</tr>
<tr>
<td>Speed</td>
<td>1479</td>
</tr>
<tr>
<td>Current</td>
<td>0.15</td>
</tr>
<tr>
<td>Power Rating (V/Hz)</td>
<td>120/60</td>
</tr>
</tbody>
</table>

Characteristics

- Motor Type: Condenser
- Type of Motor Bearing: Ball
- Thermal Fuse Protection: Yes
- Blower Wheel Type: 2 x Sirocco

Apparent Sensible Effectiveness

- Heating (%): 66% at 30 CFM

Total Recovery Efficiency

- Cooling (%): 36% at 29 CFM

Note: CFM and sones are tested and certified in accordance with HVI testing standards. Energy efficiency is tested in accordance with CSA-C439 standard.

Today’s tightly-built, over-ventilated homes occasionally need a breather. A Panasonic WhisperComfort® Energy Recovery Ventilator (ERV) maintains indoor air quality while providing a constant flow of fresh outdoor air. Indoor air pressure is balanced and stale air is expelled, helping to rid your home of volatile organic compounds (VOCs). Affordable and compact, WhisperComfort can be installed in the ceiling, saving space and providing easy access for maintenance. WhisperComfort also complies with green building standards making it a smart, fresh solution for creating a healthier home.

Panasonic.com/ashrae
OUTSIDE

Cool

INSIDE Warm

Heat & Moisture

Transfer

Whole House ERV

WhisperComfort is also suitable to meet whole house ventilation requirements under ASHRAE 62.2. The sizing charts on the next page provide a guideline for number of bedrooms and square feet. Additionally, two or even three WhisperComfort ERV’s may be installed, often at a cost lower than a traditional whole house ERV.

Ideal for:
Condominiums / Housing Authority properties / Hotels / Studio apartments

WhisperComfort has two 2-speed CFM settings

Setting 1.

20 CFM

10 CFM

Setting 2.

40 CFM

20 CFM factory preset

Frost Prevention Mode

WhisperComfort incorporates built-in frost prevention technology to avoid core freeze up.

• Above 32ºF both exhaust and supply are fully functional
• From 32ºF to 20ºF the mechanical damper on the supply air closes for 30 minutes, then opens 1 hour at the set high/low mode. The cycle repeats itself to avoid core freeze up. (Exhaust only 30 minutes per 90-minute cycle)
• Below 20ºF the mechanical damper on the supply air remains closed for 1 hour and opens 10 minutes at low mode. After 10 minutes the cycle will repeat or change if the temperature has risen above 20ºF. (Exhaust only 60 minutes per 80-minute cycle)

FEATURES

Balanced Ventilation

Tightly built homes and buildings utilizing exhaust only fans can create negative pressure. WhisperComfort solves this by supplying air to replace exhausted air, helping to balance air pressure within the home.

Panasonic WhisperComfort Spot ERV uses two 4 inch ducts – one to exhaust stale air and the other to supply fresh air from outdoors. Its low, continuous run ensures volatile organic compounds (VOC’s) are vented out and replaced with fresh air.

Exchange Capillary Core

Indoor and outdoor air passes through Panasonic’s patented capillary core technology designed to transfer heat energy and moisture. This process tempers supply air while transferring moisture.

Filters

Two filters clean exhaust and supply air (MERV6) before passing through the ERV core, extending the life of the core.

Spot ERV

WhisperComfort is a ceiling insert ideal for a single room. Fresh air is supplied at a low rate while maintaining balanced air pressure. This is an affordable way to add ERV to a specific room or a new addition.

Ideal for: Home office / Game rooms / Family rooms

SIZING

Spot Ventilation

Ventilation Capacity Requirements

<table>
<thead>
<tr>
<th>CFM</th>
<th>Bedroom 1</th>
<th>Bedroom 2</th>
<th>Bedroom 3</th>
<th>Bedroom 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Single</td>
<td>Living</td>
<td>Family</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Master</td>
<td>Large Bas.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Need to choose 10/20 CFM mode when installing.

Sizing example 1 (based on ASHRAE 62.2):

TWO BEDROOMS at 1600 SQ. FT.

Master Bedroom (7.5 CFM x 2) = 15 CFM
Second Bedroom = 7.5 CFM
1600 SQ. FT. x .01 = 16 CFM

Total = 38.5 CFM

Use WhisperComfort set at 40 CFM

Sizing example 2 (based on ASHRAE 62.2):

FOUR BEDROOMS at 2200 SQ. FT.

Master Bedroom (7.5 CFM x 2) = 15 CFM
Other 3 Bedrooms (7.5 CFM each) = 22.5 CFM
2200 SQ. FT. x .01 = 22 CFM

Total = 59.5 CFM

Use 2 WhisperComfort or 1 WhisperComfort and 1 WhisperGreen**

* WhisperGreen® are Panasonic exhaust fans with DC motor and variable speed built-in controls. Ideal for both bathroom intermittent ventilation and whole house continuous run ventilation.

** WhisperComfort does not recommend this unit due to extremely cold year-round weather.

Note: This map is based on average temperature readings over 10 years from 60 major cities in North America. Actual performance may vary depending on annual temperature differences and varying altitudes. Visit www.ashrae.org/technology/zone for the climate zone map adopted by ASHRAE.

FV-04VE1
2 X 4” Ducts

Recommended Zonal Map

Operation Season

Zone A: Unit can perform optimally throughout the year.
Zone B: Unit can perform optimally March through November.*
Zone C: Unit can perform optimally April through November.**
Zone D: Panasonic does not recommend this unit due to extremely cold year-round weather.

Without ERV

With Spot ERV

Supply Air Filter

Exhaust Air Filter

Supply Air Filter

Exhaust Air Filter

Exchange Capillary Core

Supply Air Filter

Exhaust Air Filter

Exchange Capillary Core

Supply Air Filter

Exhaust Air Filter

Exchange Capillary Core