

Fit 120H

Heat Recovery Ventilator

Part I – General

Product Specification

- Heat recovery ventilator shall be manufactured by “Fantech” or an approved equal provided all specifications are met. Fantech HRV residential series shall be used as the basis of design.

Requirements

- Unit shall comply with the UL 1812 requirements regulating the construction and installation of Heat Recovery Ventilators.
- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators.
- Complies with the CSA F326 requirements regulating the installation of Heat Recovery Ventilators.
- Technical data was obtained from publishing results of test relating to CSA C439 Standards.
- The unit shall be HVI certified.

Part II – Product

Cabinet

- Cabinet shall be constructed of G90 galvanized, 24 gauge steel sheet. All seams shall be sealed, requiring no caulking at job site.
- The unit shall be fitted with a full length drain pan for controlled condensate drainage including one drain spout with ½ inch (12.7 mm) fitting with internal fingers for a push on connection.
- Cabinet shall be insulated with 1" (25 mm) foil-face high density expanded polystyrene and 0.25" (6 mm) closed-cell foam on the top of the unit.

Heat Recovery Core

- The heat recovery core shall be a fixed plate cross-flow heat exchanger using 1100 alloy aluminum and capable of transferring sensible heat between air streams. The heat recovery core shall be engineered with a turbulence inducing geometry in order to maximize heat transfer while allowing an effective evacuation of condensate. The plates shall be hemmed to avoid cross-contamination of airstreams. The flame spread index of the heat recovery core shall not be over 25 and its smoke developed index shall not be over 50 when tested in accordance with the Standard for Tests for Surface Burning Characteristics of Building Material, UL723.

Frost Control

- A preset frost control sequence shall be activated at an outdoor air temperature of 23°F (-5°F) and lower. During the defrost sequence, the supply fan shuts down and the exhaust fan switches into high speed to maximize the effectiveness of the defrost strategy. The unit then returns to normal operations, and continues the cycle.

Electrical

- Electrical box shall be isolated from the airflows and all integral wires and connections protected.
- All internal electrical components shall be factory wired for single point power connection.
- All electrical components shall be UL Listed or Recognized and CSA Certified or Accepted where applicable and wired in compliance with the National Electrical Code.

Fan Sections & Motors

- Fans shall be Ebm-Papst backward inclined motorized impellers.
- Fan motor shall have maintenance-free permanently lubricated sealed ball bearings.
- Fan motor shall be UL listed to UL1004 and/or UL2111, CSA C22.2 No. 77 and No.100.
- Fan motor shall have IP protection class 44 according to IEC 60529
- Separate fans for exhaust and supply blowers shall be provided.

Filters

- Unit shall have two washable electrostatic panel type air filters 11.2" (284 mm) x 7" (176 mm) x 0.125" (3 mm).

Part III – Execution

Serviceability

- Unit shall have a latched access panel on the bottom.
- Core, filters and motors shall be serviceable from the bottom of the unit.
- Fan assemblies shall be mounted on a removable sliding base. Heat recovery core and filters shall be mounted in slide-out rails for ease of inspection, removal, and cleaning.
- Accessibility to the plugin connectors shall be maintained for any unit installation.

Installation

- Collar shall be provided for suitable ductwork connection.
- Unit shall be adaptable for easy service of electrical components.

Warranty

- The heat recovery aluminum core had a Limited Lifetime Warranty. Unit shall have a warranty that is limited to 5 years on all parts and 7 years on fans from the date of purchase, including parts replaced during this time period. If there is no proof of purchase available, the date associated with the serial number will be used for the beginning of the warranty period.