

## INSTALLATION GUIDE

### HEAT (ENERGY, HEAT AND ENERGY) RECOVERY VENTILATOR

FRIGATE ERV 80

FRIGATE HRV 120

FRIGATE ERV 120

FRIGATE HRV 150

FRIGATE ERV 150

FRIGATE ERV 80 R

FRIGATE HRV 100 R

FRIGATE ERV 100 R

FRIGATE HRV 120 R

FRIGATE ERV 120 R

FRIGATE HRV 150 R

FRIGATE ERV 150 R

FRIGATE ERV 80 EC

FRIGATE HRV 120 EC

FRIGATE ERV 120 EC

FRIGATE HRV 150 EC

FRIGATE ERV 150 EC

FRIGATE ERV 80 R EC

FRIGATE HRV 100 R EC

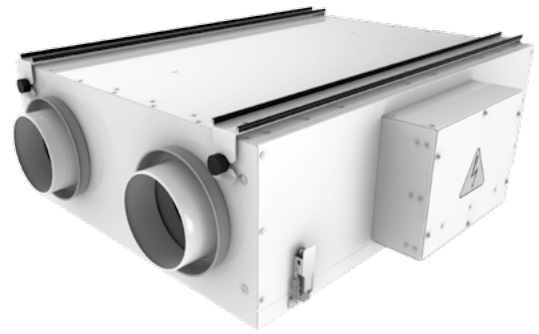
FRIGATE ERV 100 R EC

FRIGATE HRV 120 R EC

FRIGATE ERV 120 R EC

FRIGATE HRV 150 R EC

FRIGATE ERV 150 R EC



### INSTALLATION

#### Tools required



Pencil



Drill



Screwdriver



Dowel



Screws

### MOUNTING

While mounting the unit provide enough access for maintenance or repair work.

The minimum recommended clearances between the unit and the adjoining walls are given in the figure below.

When selecting a mounting location of the unit provide free opening of the service panel.

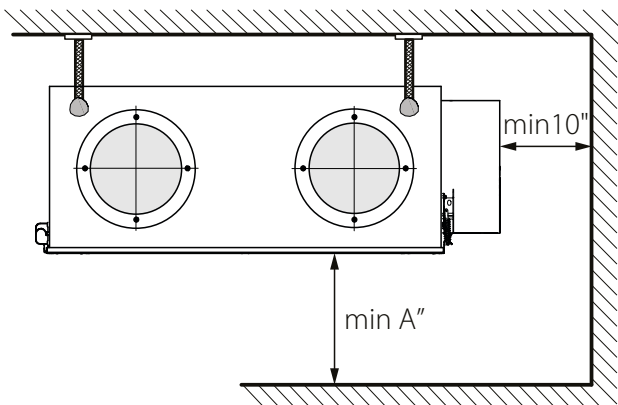
The units are designed for ceiling or wall mounting.

While installing the unit ensure convenient access for subsequent maintenance and repair.

Keep the recommended minimum distances to the walls for all mounting variants as shown below.

The fasteners are not included in the delivery set and must be purchased separately. While selecting appropriate fasteners consider the material of the mounting surface as well as the weight of the unit, refer to technical data. Fasteners selection and unit mounting should be done by service technicians.

To mount the unit to the ceiling use belts rigidly fixed to a horizontal surface or threaded rods and expansion anchors.



MODEL	DIMENSION A
FRIGATE HRV/ERV 80 (R) (EC)	21"
FRIGATE HRV/ERV 150 (R) (EC)	25"
FRIGATE HRV/ERV 120 (R) (EC)	24"

The belts, threaded rods and expansion anchors are not included in the delivery set.



To attain the best performance of the unit and to minimize turbulence-induced air pressure losses while mounting connect a straight air duct section on both sides of the unit.

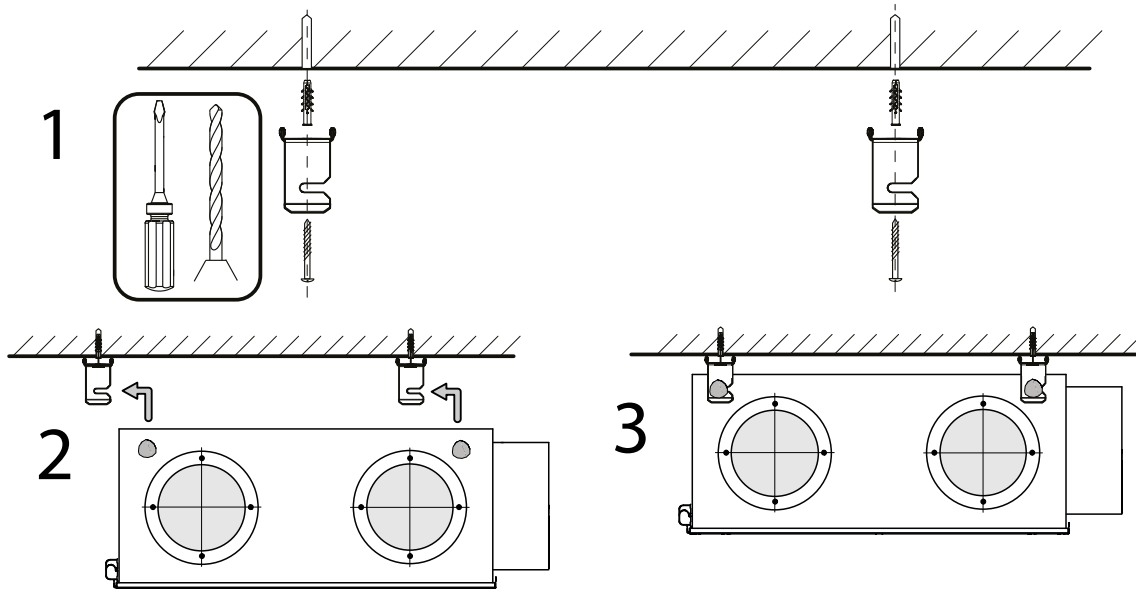
Minimum straight air duct length:

equal to 1 air duct diameter on intake side

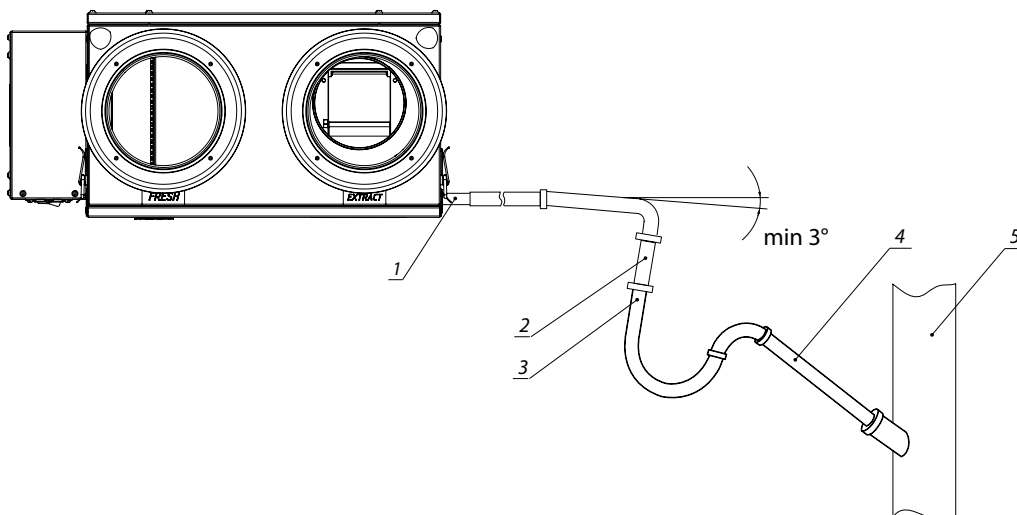
equal to 3 air duct diameters on outlet side

If the air ducts are not connected or the connected air ducts are too short, protect the unit parts from ingress of foreign objects by covering the spigots with a protecting grille or other protecting device with mesh width not more than 12.5 mm to prevent uncontrollable access to the fans.

Prior to commissioning of the unit make sure it contains no objects.



The Vents Frigate HRV units are equipped with a condensate drain hose for condensate drainage (fig. 5). Connect the drain hose (1), U-trap (3) and drain system (5) with metal, plastic or rubber pipes (2 and 4). The pipes must be sloped down at least by 3°. Before starting operation of the unit fill the system with water and check that U-trap is always filled with water. Make sure that the water drainage is correct, otherwise some condensate may be accumulated inside the unit and provoke subsequent equipment damage and water ingress to the room. The condensate drainage system is designed for operation at the ambient temperature above 32 °F. If the ambient temperature is below 32 °F, insulate the drain system and provide air heating.



### Connection to power mains

The unit is rated for connection to 120V/60 Hz power supply source.

The unit is supplied with a pre-wired power cable and an adapter. It is suitable for connection to any standard grounded outlet.

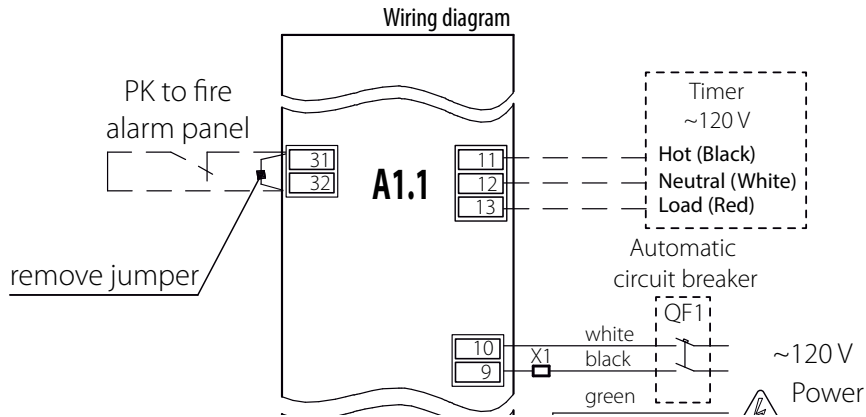
Connect the unit to power mains via an external automatic circuit breaker installed at the power input and integrated in the house cabling. Selection of the trip current for the circuit breaker must be based on the power mains technical parameters.

The circuit breaker installation place must provide quick access for emergency shut-down of the unit.

The overload protection is performed by two fuses. They are used for overload protection in case of an overload or a short circuit. To replace the fuse disconnect the ventilation unit from power supply, replace the fuse and check the ventilation unit as described in the Unit Control section.

Use the fuses with the stated current only.

In case of repeated melting of the cutout fuse please contact the Product Seller.



## CONNECTION OF EXTERNAL CONTROLS

The ventilation unit has facilities for connection of maximum 5 controls. If any control unit is activated, the ventilation unit goes to high-speed mode.

Connectable controls:

1. Remote control (thermostat).

Remote control (thermostat) functions:

- Unit on/off
- Speed selection
- Indoor temperature display
- Scheduled operation

2. CO<sub>2</sub> sensor.

Recommended for use in office buildings and public premises. When carbon dioxide concentration exceeds the set point, the unit goes to the high speed mode.

3. Humidistat.

The humidistat is used for indoor humidity control. When indoor humidity exceeds the set point, the unit goes to the high speed mode and runs with the high speed until the humidity level falls down below the set point. The humidity set point is adjustable.

4. Timer.

A remote timer is recommended for polluted indoor air areas. In case of the timer activation, the unit goes to the high speed mode and runs for the set time.

5. Switch.

A switch is recommended for the polluted indoor air areas. When the switch contacts are closed, the unit goes to the high speed mode. Open the switch contacts to return to the permanent low-speed mode.

All the listed above controls must be connected in compliance with the wiring diagram. Maximum five various controls can be parallel connected to the terminals 2 and 5.

6. Fire alarm panel signal.

When the controller dry contacts no. 33 and no. 36 are closed, the unit has emergency shutdown. The contacts are jumped by the manufacturer. The jumper must be removed in case of use of the fire alarm.

All the controls listed above must be connected in compliance with the wiring diagram.

