



# ERV range

## ENERGY RECOVERY VENTILATION



### ERV SYSTEMS OFFER THREE IMPORTANT BENEFITS:

1. **Improved indoor air quality:** With a steady stream of conditioned fresh air coming indoors, you don't have to open doors and windows to ventilate your indoor spaces. The amount of particulates in your indoor air is reduced by this improved ventilation by using proper filtration unit.
2. **Better indoor moisture control:** Energy recovery ventilators transfer moisture from humid outdoor air to the exhaust stream of air leaving your house. This helps prevent humidity and moisture buildup throughout your home.
3. **Financially:** This equipment can easily tie into the HVAC system of a home, this reduces utility expenses and dramatically reduces the waste of energy for which you've already paid.



#### Effective Ventilation

Introduces outdoor fresh air into indoors, meanwhile expels the indoor stale air to outdoor, which makes you feel the comfort of nature.



#### High efficient energy recovery

The built-in high efficient heat exchanger can recover the energy from outgoing indoor air to coming fresh air while ventilating. It can recover over 70% energy.



#### Perfect silence design

It is designed with the worldwide fashionable structure and manufactured by the accurate moldings. According to the principle of hydrokinetics, it achieves the perfect silent effect by using the micro-punch anechoic technology.



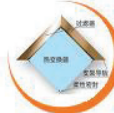
#### Air filtration and purification

The inner air filters are professionally designed to remove the pollutants of the incoming air, providing you the fresh and clean air.



#### By-pass function

By-pass function enables the unit to make natural ventilation in suitable climates, which can prolong the service life of the heat exchanger.



#### High airproof feature and easy maintenance

The heat exchanger is connected with the equipment by the in-mold rail, and embedded with the special soft and dense sealing materials. It can be drew out by hand and is easy to maintain. At the same time, it can ensure that the fresh air and exhaust air are completely separated, avoiding the cross pollution.

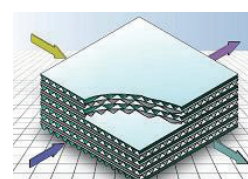
## BRIEF INTRODUCTION TO HEAT EXCHANGER

The plate heat exchanger is one of the air-to-air heat exchangers. The outdoor air and exhaust air are separated by the plates to ensure the air tightness while transferring the heat. It has no movement parts, so it's more reliable and has longer service life.

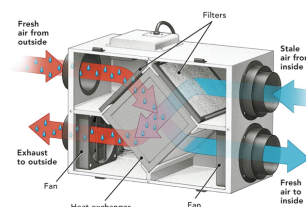
According to the airflow directions of the heat exchanger, it is categorized into crossflow type, counterflow type, and cross-counter flow type. According to heat recovery function of the heat exchanger, it is categorized into sensible heat and total heat type.



Euroventus crossflow plate heat exchanger is made of aluminum foils of 0.12mm thickness. The SA and EA are double folded (five thickness of the material). All connections are completely joint sealing using epoxy resin. It is high strength and there has no cross-contamination. It has the large area of heat transfer and high heat transfer efficiency in the same plate under the same amount of

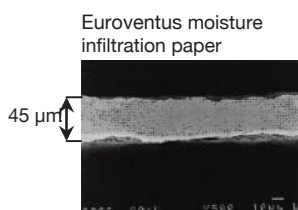
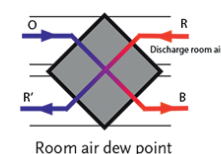


Total heat exchanger is made of ER paper which is featured by high moisture permeability, good air tightness, excellent tear resistance, and aging resistance. The clearance between the fibers is very small, so only the moisture molecules of small diameter can go through, the odor molecules of larger diameter are unable to pass through it. By this means, the temperature and humidity can be recovered smoothly, and prevent the pollutants infiltrating to the fresh air.

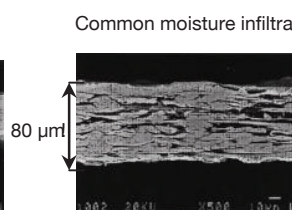


High-efficient counterflow plate total heat exchanger is also an energy recovery for direct air-to-air total heat exchange. Since the two airstreams flow counter and increase the heat exchanging area, it is more efficient than the crossflow heat exchanger and applied to the Holtop ventilators of high-efficient series (TLE series).

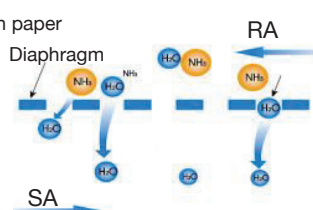
Counter-flow plate heat exchanger (sensible heat recovery)



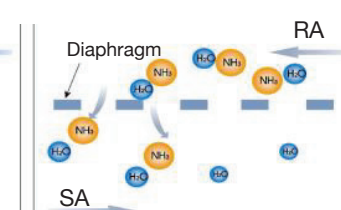
Euroventus moisture infiltration paper



Common moisture infiltration paper



High efficient heat exchange materials



Conventional heat exchange materials

| Gas molecules type  | Carbon dioxide (CO <sub>2</sub> ) | Ammonia (NH <sub>3</sub> ) | Methane (CH <sub>4</sub> ) | Vapor (H <sub>2</sub> O) | The clearance of fiber   |
|---------------------|-----------------------------------|----------------------------|----------------------------|--------------------------|--------------------------|
| Diameters<br>( nm ) | 0.324                             | 0.308                      | 0.324                      | 0.288                    | 0.3<br>( for reference ) |



## SELECTION GUIDE

ERVs are available in wall mount or duct-connected models. This discussion will focus on duct connected models which can be used for ventilating an entire house.

### 1.0 Best Applications for an ERV

The house is very tight – 0.5 air changes per hour (ACH) or less. Heating and/or cooking equipment and/or the attached garage are not adequately vented.

Household chemicals are stored in the house.

Radon levels are high. (If radon levels are higher than 15 pCi/liter [picoCuries per liter], an ERV will not be adequate to remedy the situation. Four picoCuries per liter is the level at which the EPA recommends that remedial action take place.) In the Austin region, radon is generally not considered a problem.

Formaldehyde levels are high.

The home becomes depressurized as a result of leaks in the home's mechanical system. This is a common problem.

### 2.0 Types of Heat Exchanger Cores

Cross flow plate cores Counter flow flat-plate cores

Heat pipe core

Rotary wheel core. (These exchangers offer the best advantages for homes with air conditioning as they can regulate humidity with a rotary wheel core plus a desiccant wheel.)

### 3.0 Efficiency

The efficiency of ERVs refers to the amount of temperature adjustment of the incoming fresh air that the outgoing stale air can accomplish in the heat exchanger. In the winter, the outgoing heated stale air will pre-heat the incoming fresh air to some extent, according to the unit's efficiency. The opposite occurs in the summer with the outgoing air pre-cooling the incoming air.

1. Choose the proper installation types based on the building structure
2. Determine the fresh airflow required according to the use, size and number of persons
3. Select the right specifications and quantity according to the determined fresh airflow

A unit with humidity regulation will remove humidity from humid summer fresh air and add humidity to the incoming dry winter air.

The Home Ventilating Institute (HVI) has a standard test for units manufactured in the United States. Not all manufacturers have been tested, so it is necessary to examine efficiency claims to see if they are HVI data or manufacturers data to get a true comparison. All units sold in Canada are subject to a standard test (R-2000), which is almost identical to HVI's test.

### 4.0 Installation

These units are typically installed in an attic, crawlspace, or storage/utility area. They require two connections to the outdoors – one to exhaust the stale indoor air and the other to bring in the fresh outside air. The inlet and outlet on the building exterior need to be distanced from each other to avoid cross contamination. It is preferred to have the inlet and outlet on different sides of the house.

Fresh air from the unit into the home's interior can be supplied in two ways. A separate supply duct can carry the fresh air to a central location in the house. This supply outlet is best located where the air will not blow on people, since the air can be too cool or too warm depending on the season. The fresh air can also be placed into the existing ductwork, typically, in the return duct.

The stale air from a home is typically drawn from the most humid locations – bathroom(s) and kitchen. An ERV works with bathroom exhaust fans by continually drawing air from the bathroom. When the bathroom is in use, the exhaust fan boosts the exiting of humid air into the same duct used by the ERV. However, an ERV should not share the same exhaust duct as a range hood.

## AIRFLOW REQUIRED IN RESIDENTIAL BUILDINGS

| Rooms type                               | Non-smoking   |           |                |           |               | Slight smoking |           | Heavy Smoking |
|------------------------------------------|---------------|-----------|----------------|-----------|---------------|----------------|-----------|---------------|
|                                          | Ordinary ward | Gym       | Theater & mall | Office    | Computer room | Dining room    | VIP room  | Meeting room  |
| Personal fresh air consumption(m3/h) (Q) | 17-42         | 8-20      | 8.5-21         | 25-62     | 40-100        | 20-50          | 30-75     | 50-125        |
| Air changes per hour (P)                 | 1.06-2.65     | 0.50-1.25 | 1.06-2.66      | 1.56-3.90 | 2.50-6.25     | 1.25-3.13      | 1.88-4.69 | 3.13-7.81     |

## EXAMPLE

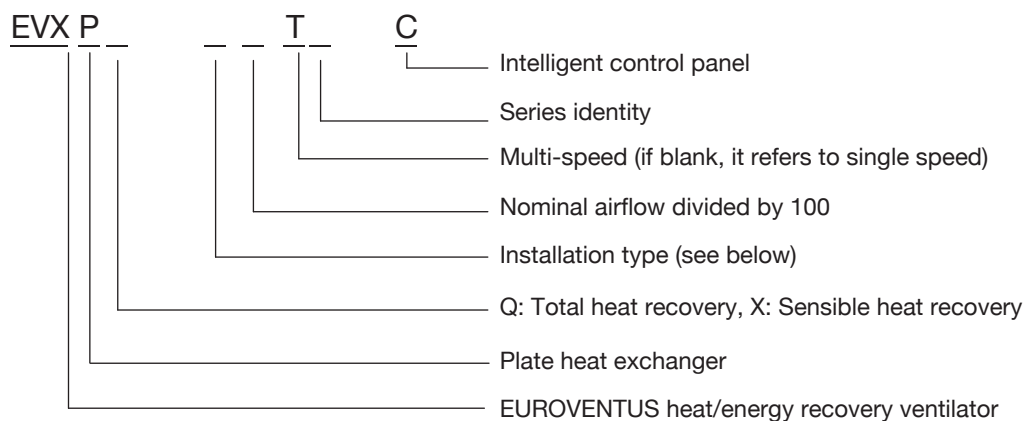
The area of a computer room is 60 sq. meters ( $S=60$ ), the net height is 3 meters ( $H=3$ ), and there are 10 persons ( $N=10$ ) in it.

If it is calculated according to "Personal fresh air consumption", and assume that:  $Q=70$ , the result is  $Q_1 = N \cdot Q = 10 \cdot 70 = 700 (\text{m}^3/\text{h})$

If it is calculated according to "Air changes per hour", and assume that:  $P=5$ , the result is  $Q_2 = P \cdot S \cdot H = 5 \cdot 60 \cdot 3 = 900 (\text{m}^3)$   
Since  $Q_2 > Q_1$ ,  $Q_2$  is better for selecting the unit.

As to special industry such as hospitals (surgery and the special nursing rooms), labs, workshops, airflow required should be determined in conformity with regulations concerned.

## MODEL DESCRIPTION



## INSTALLATION TYPE

D-Suspended type, L-Floor type, W-Wall type (external or balcony), G-Wall type (internal or balcony)

## EXAMPLE

EVXPQ-D10TLE refers to suspended type ERV with total heat exchanger, TLE series, airflow of  $1000 \text{m}^3/\text{h}$ , 3 speeds.

## LE SERIES, SUSPENDED TYPE



EVXPQ-D1.5LE~D10TLE



EVXPQ-D15LE~D20TLE

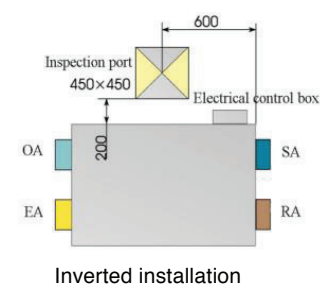
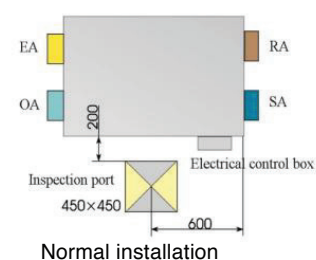
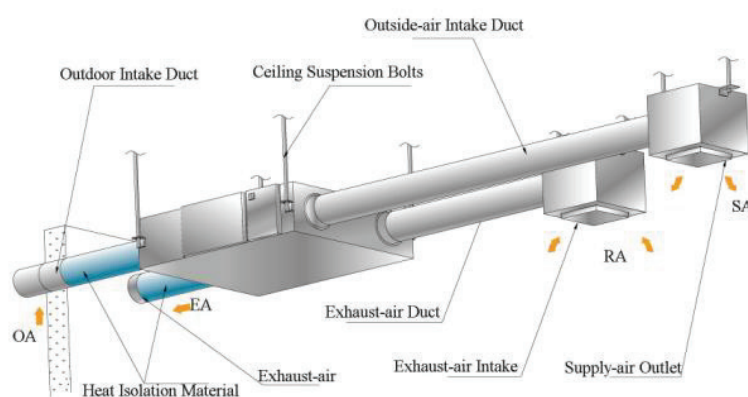
## FEATURES

- Airflow from 115-2000m<sup>3</sup>/h
- Energy recovery
- High efficient counter flow heat exchanger
- 3 speeds
- Quiet operation
- Double filters
- Easy installation to ceiling
- By-pass function

## APPLICATION

Suitable for household, meeting room, office, computer room, dining (carbon filter is optional) and gym places etc.

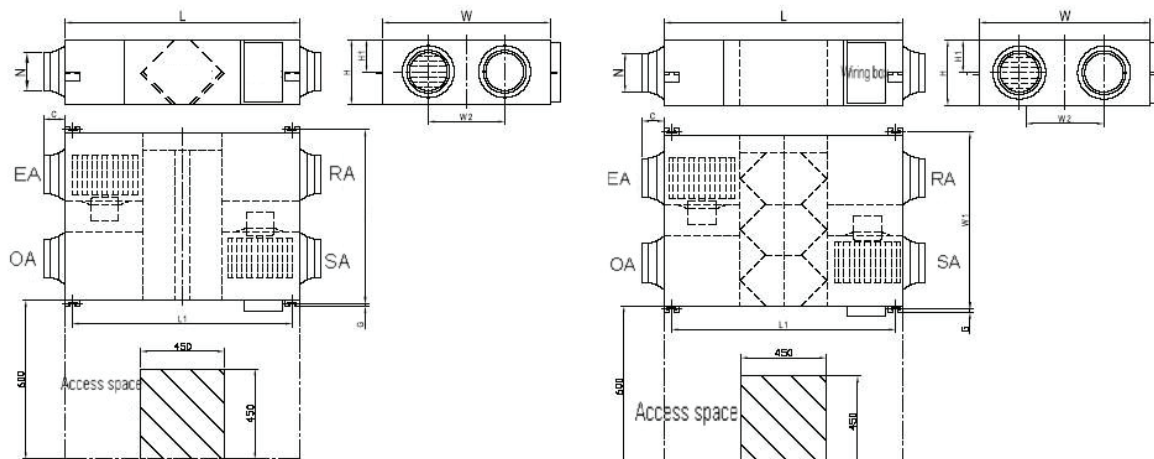
## INSTALLATION



## SPECIFICATIONS

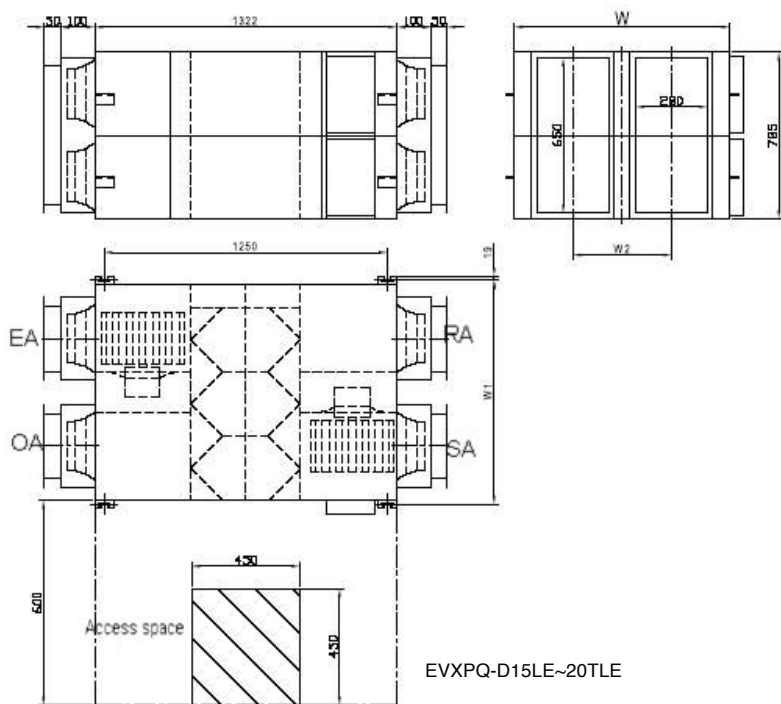
| Model         | Airflow ( m³/h³ ) |      |      | External pressure (Pa) |    |     | Enthalpy Efficiency (%) |    |    |        |    |    | Temp. Eff. (%) |    |    | Noise dB(A) |    |    | Volt. (V) | Current (A) | Input power (W) | N. W. (Kg) |
|---------------|-------------------|------|------|------------------------|----|-----|-------------------------|----|----|--------|----|----|----------------|----|----|-------------|----|----|-----------|-------------|-----------------|------------|
|               |                   |      |      |                        |    |     | Summer                  |    |    | Winter |    |    |                |    |    |             |    |    |           |             |                 |            |
|               | L                 | M    | H    | L                      | M  | H   | L                       | M  | H  | L      | M  | H  | L              | M  | H  | L           | M  | H  |           |             |                 |            |
| EVXPQ-D1.5TLE | 115               | 150  | 150  | 34                     | 58 | 75  | 67                      | 63 | 63 | 74     | 70 | 70 | 77             | 75 | 75 | 22          | 24 | 26 | 220       | 0.5         | 105             | 25         |
| EVXPQ-D2.5TLE | 165               | 250  | 250  | 30                     | 70 | 85  | 67                      | 63 | 63 | 73     | 70 | 70 | 77             | 75 | 75 | 22          | 26 | 27 | 220       | 0.56        | 117             | 29         |
| EVXPQ-D3.5TLE | 270               | 350  | 350  | 36                     | 60 | 90  | 67                      | 66 | 66 | 72     | 69 | 69 | 77             | 75 | 75 | 25          | 29 | 31 | 220       | 0.72        | 150             | 37         |
| EVXPQ-D5TLE   | 360               | 500  | 500  | 30                     | 60 | 100 | 68                      | 62 | 62 | 72     | 67 | 67 | 78             | 75 | 75 | 25          | 31 | 33 | 220       | 0.96        | 200             | 43         |
| EVXPQ-D6.5TLE | 515               | 650  | 650  | 25                     | 40 | 70  | 64                      | 65 | 62 | 70     | 68 | 68 | 77             | 75 | 75 | 30          | 34 | 35 | 220       | 1.4         | 295             | 64         |
| EVXPQ-D8TLE   | 625               | 800  | 800  | 60                     | 98 | 120 | 68                      | 65 | 65 | 74     | 71 | 71 | 77             | 75 | 75 | 32          | 36 | 38 | 220       | 1.7         | 355             | 71         |
| EVXPQ-D10TLE  | 780               | 1000 | 1000 | 25                     | 35 | 85  | 68                      | 65 | 65 | 74     | 71 | 71 | 77             | 75 | 75 | 31          | 36 | 38 | 220       | 2.1         | 440             | 83         |
| EVXPQ-D15TLE  | 1250              | 1500 | 1500 | 20                     | 45 | 75  | 68                      | 65 | 65 | 74     | 71 | 71 | 77             | 75 | 75 | 31          | 39 | 41 | 220       | 3.4         | 710             | 165        |
| EVXPQ-D20TLE  | 1700              | 2000 | 2000 | 20                     | 25 | 60  | 68                      | 65 | 65 | 74     | 71 | 71 | 77             | 75 | 75 | 34          | 39 | 41 | 220       | 4.2         | 880             | 189        |

## LE SERIES, SUSPENDED TYPE



EVXPQ-D1.5LE~5TLE

EVXPQ-D6.5LE~10TLE

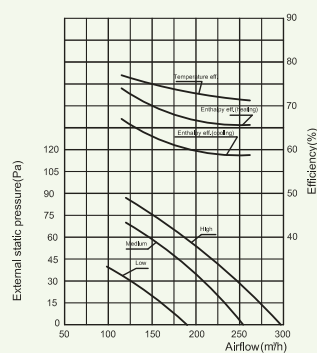


EVXPQ-D15LE~20TLE

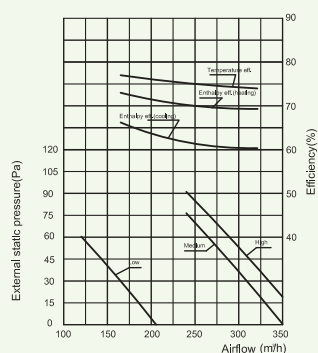
| Model         | L    | L1   | W    | W1   | W2  | H   | H1  | C   | G  | N   |
|---------------|------|------|------|------|-----|-----|-----|-----|----|-----|
| EVXPQ-D1.5TLE | 808  | 867  | 580  | 510  | 290 | 264 | 20  | 100 | 19 | 144 |
| EVXPQ-D2.5TLE | 882  | 810  | 599  | 657  | 315 | 270 | 111 | 100 | 19 | 144 |
| EVXPQ-D3.5TLE | 882  | 810  | 804  | 860  | 480 | 270 | 111 | 100 | 19 | 144 |
| EVXPQ-D5TLE   | 962  | 890  | 904  | 960  | 500 | 270 | 111 | 107 | 19 | 194 |
| EVXPQ-D6.5TLE | 1222 | 1150 | 884  | 940  | 480 | 340 | 146 | 107 | 19 | 194 |
| EVXPQ-D8TLE   | 1322 | 1250 | 884  | 940  | 428 | 388 | 170 | 85  | 19 | 242 |
| EVXPQ-D10TLE  | 1322 | 1250 | 1134 | 1190 | 678 | 388 | 170 | 85  | 19 | 242 |
| EVXPQ-D15TLE  | 1322 | 1250 | 884  | 940  | 428 | 785 | -   | -   | -  | -   |
| EVXPQ-D20TLE  | 1322 | 1250 | 1134 | 1190 | 678 | 785 | -   | -   | -  | -   |

## Performance Curves

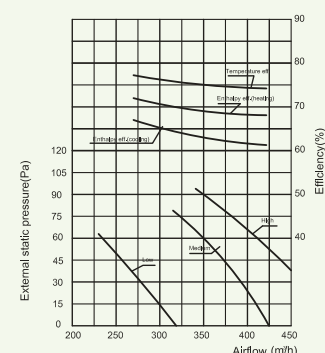
EVXPQ-D1.5LE Performance Chart



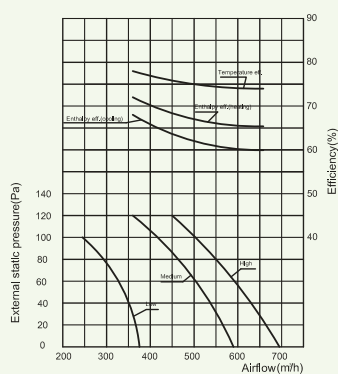
EVXPQ-D2.5LE Performance Chart



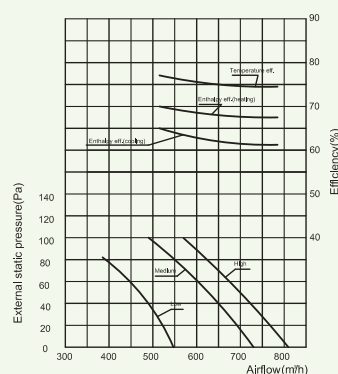
EVXPQ-D3.5LE Performance Chart



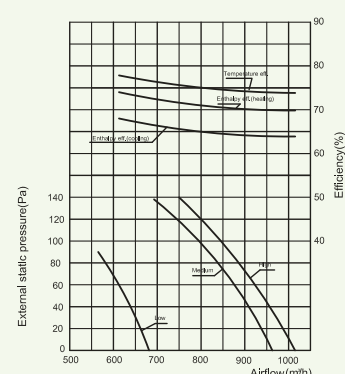
EVXPQ-D5LE Performance Chart



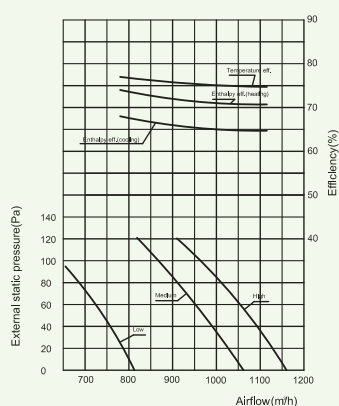
EVXPQ-D6.5LE Performance Chart



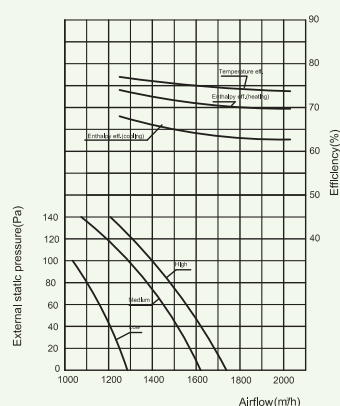
EVXPQ-D8LE Performance Chart



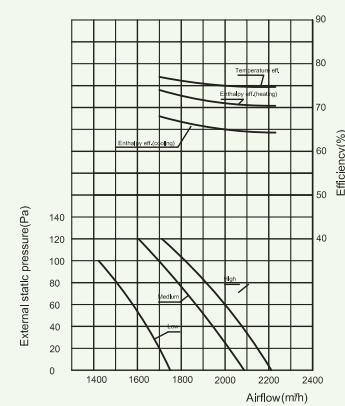
EVXPQ-D10LE Performance Chart



EVXPQ-D15LE Performance Chart



EVXPQ-D20LE Performance Chart



## HE SERIES, SUSPENDED TYPE

## FEATURES



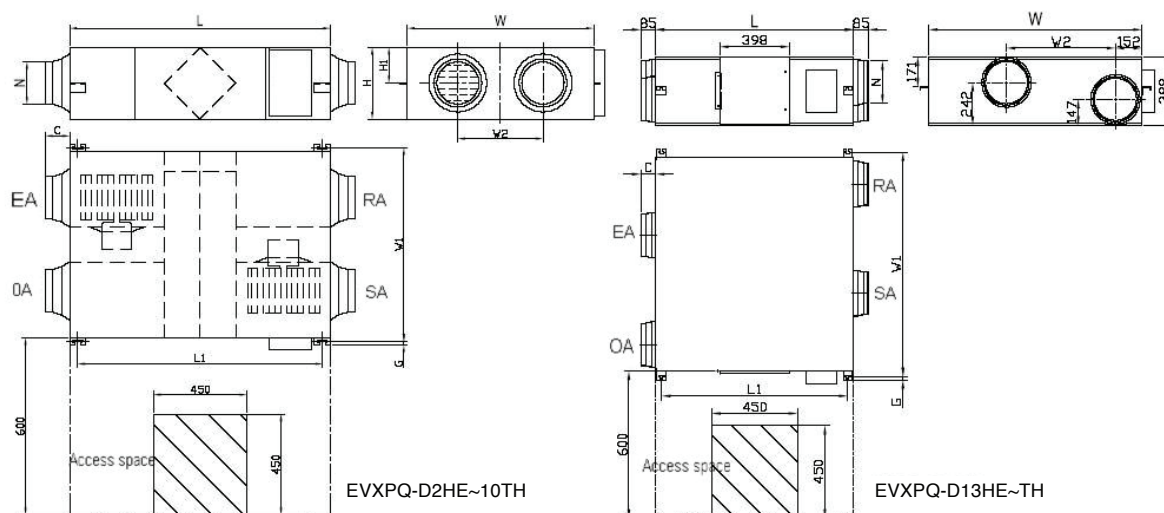
EVXPQ-D2HE~D13HE

- Airflow from 150-1300m<sup>3</sup>/h
- Crossflow heat exchanger, silent operation
- By-pass function, night cooling
- Intelligent control, touch screen display as option
- Heat or energy recovery
- Quiet operation
- Double filters
- Easy installation to ceiling

## SPECIFICATIONS

| Model        | Airflow 2 m3/h3 |      |      | External pressure (Pa) |    |     | Enthalpy Efficiency (%) |    |    |        |    |    | Temp. Eff. (%) |    |    | Noise |    |    | Volt. (V) | Current (A) | Input power (W) | N. W. (Kg) |
|--------------|-----------------|------|------|------------------------|----|-----|-------------------------|----|----|--------|----|----|----------------|----|----|-------|----|----|-----------|-------------|-----------------|------------|
|              |                 |      |      |                        |    |     | Summer                  |    |    | Winter |    |    |                |    |    |       |    |    |           |             |                 |            |
|              | L               | M    | H    | L                      | M  | H   | L                       | M  | H  | L      | M  | H  | L              | M  | H  | L     | M  | H  |           |             |                 |            |
| EVXP Q-D2HE  | 150             | 200  | 200  | 60                     | 70 | 75  | 60                      | 55 | 55 | 63     | 59 | 59 | 75             | 70 | 70 | 22    | 25 | 27 | 220       | 0.5         | 105             | 23         |
| EVXP Q-D3HE  | 250             | 300  | 300  | 75                     | 82 | 85  | 62                      | 57 | 57 | 65     | 61 | 61 | 73             | 68 | 68 | 23    | 27 | 30 | 220       | 0.56        | 117             | 25         |
| EVXP Q-D4HE  | 350             | 400  | 400  | 80                     | 85 | 88  | 62                      | 57 | 57 | 65     | 60 | 60 | 74             | 69 | 69 | 25    | 29 | 32 | 220       | 0.72        | 150             | 31         |
| EVXP Q-D6HE  | 500             | 600  | 600  | 89                     | 92 | 97  | 63                      | 59 | 59 | 67     | 61 | 61 | 76             | 70 | 70 | 25    | 31 | 35 | 220       | 0.96        | 200             | 36         |
| EVXP Q-D8HE  | 700             | 800  | 800  | 92                     | 96 | 100 | 57                      | 55 | 55 | 63     | 57 | 57 | 74             | 68 | 68 | 32    | 37 | 39 | 220       | 1.7         | 355             | 60         |
| EVXP Q-D10HE | 900             | 1000 | 1000 | 80                     | 85 | 86  | 60                      | 58 | 58 | 64     | 62 | 62 | 76             | 70 | 70 | 32    | 36 | 40 | 220       | 2.1         | 440             | 70         |
| EVXP Q-D13HE | 1000            | 1300 | 1300 | 75                     | 85 | 90  | 58                      | 56 | 56 | 62     | 59 | 59 | 76             | 70 | 70 | 37    | 40 | 42 | 220       | 3.4         | 710             | 79         |

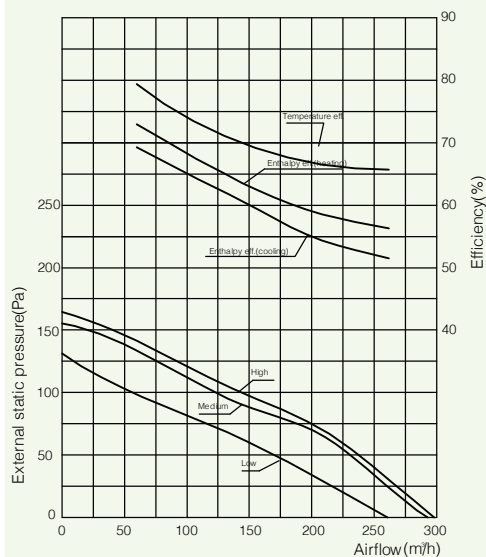
## DIMENSIONS



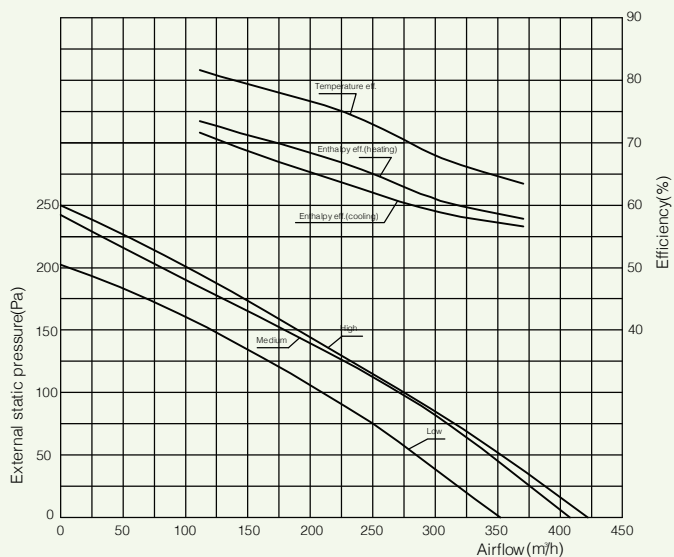
| Model       | L    | L1   | W    | W1   | W2  | H   | H1  | C   | G  | N    |
|-------------|------|------|------|------|-----|-----|-----|-----|----|------|
| EVXPQ-D2HE  | 666  | 725  | 580  | 510  | 290 | 264 | 20  | 100 | 19 |      |
| EVXPQ-D3HE  | 744  | 675  | 599  | 657  | 315 | 270 | 111 | 100 | 19 | Φ144 |
| EVXPQ-D4HE  | 744  | 675  | 804  | 860  | 480 | 270 | 111 | 100 | 19 | Φ144 |
| EVXPQ-D6HE  | 824  | 754  | 904  | 960  | 500 | 270 | 111 | 107 | 19 | Φ194 |
| EVXPQ-D8HE  | 1116 | 1045 | 884  | 940  | 428 | 388 | 170 | 85  | 19 | Φ242 |
| EVXPQ-D10HE | 1116 | 1045 | 1134 | 1190 | 678 | 388 | 170 |     | 19 | Φ242 |
| EVXPQ-D13HE | 1129 | 1059 | 1216 | 1273 | 621 | 388 |     | 85  | 19 | Φ242 |

## Performance Curves

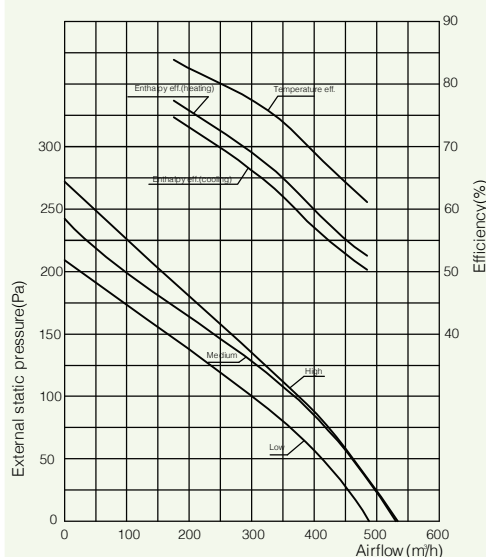
EVXPQ-D2HE Performance Chart



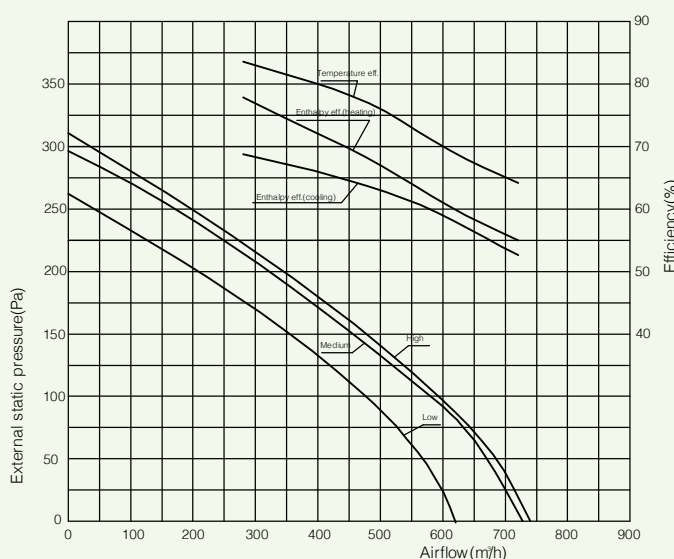
EVXPQ-D3HE Performance Chart



EVXPQ-D4HE Performance Chart

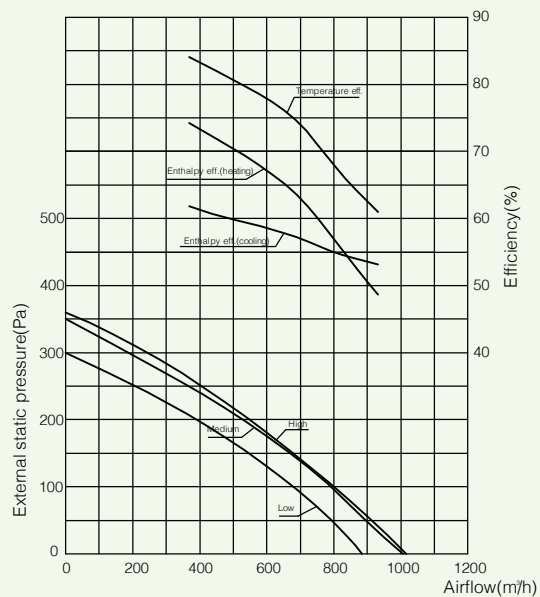


EVXPQ-D6HE Performance Chart

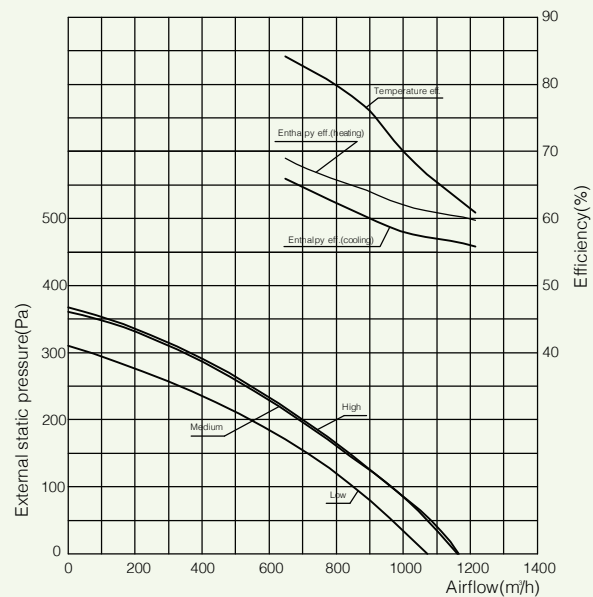


## Performance Curves

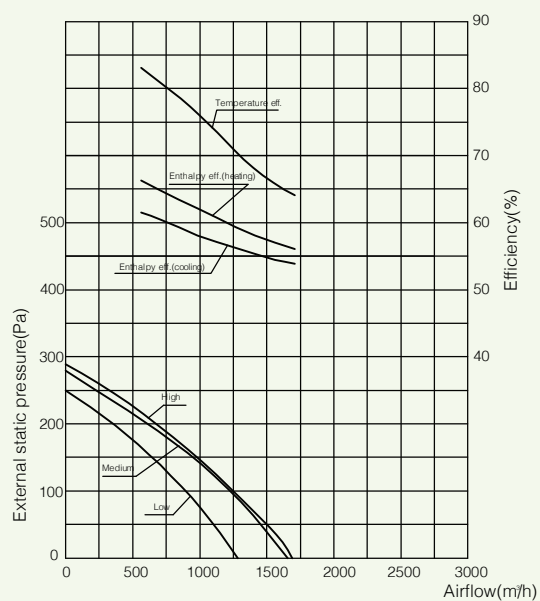
EVXPQ-D8HE Performance Chart



EVXPQ-D10HE Performance Chart



EVXPQ-D13HE Performance Chart



## FNH SERIES, WITH HIGH EFFICIENT FILTER

## FEATURES



EVXPQ-D2PFNH~D6PFNH

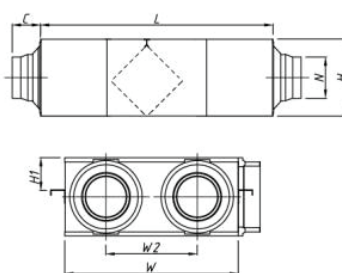
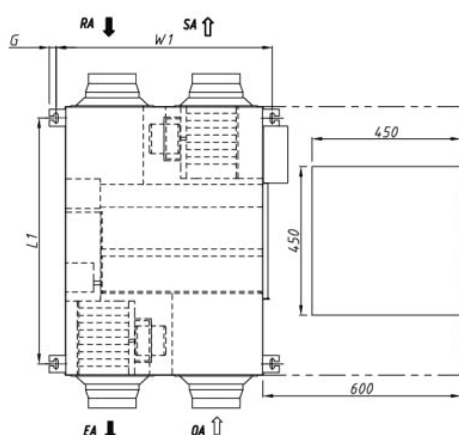
- Airflow from 150-600m<sup>3</sup>/h
- Crossflow heat exchanger
- By-pass function, night free cooling
- Intelligent control, touch screen display as option
- F9 filter
- Heat or energy recovery
- Integrated with high efficient filters, made of operating theatre clean class material
- Filtration class up to F9
- Easy installation and maintenance

## SPECIFICATIONS

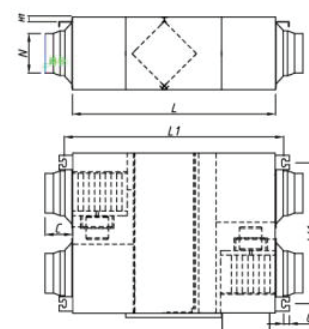
operating theatre clean class material

| Model        | Airflow (m3/h3) |      |      | External pressure (Pa) |    |    | Enthalpy Efficiency (%) |    |    |        |    |    | Temp. Eff. (%) |    |    | Noise dB(A) |    |      | Volt. (V) | Current (A) | Input power (W) | N. Weight (Kg) |
|--------------|-----------------|------|------|------------------------|----|----|-------------------------|----|----|--------|----|----|----------------|----|----|-------------|----|------|-----------|-------------|-----------------|----------------|
|              |                 |      |      |                        |    |    | Summer                  |    |    | Winter |    |    |                |    |    |             |    |      |           |             |                 |                |
|              | L               | M    | H    | L                      | M  | H  | L                       | M  | H  | L      | M  | H  | L              | M  | H  | L           | M  | H    |           |             |                 |                |
| EVXPQ-D2FNH  | 150             | 200  | 200  | 50                     | 60 | 65 | 60                      | 55 | 55 | 63     | 59 | 59 | 75             | 70 | 70 | 25          | 30 | 31.5 | 220       | 0.45        | 95              | 24.5           |
| EVXPQ-D3FNH  | 250             | 300  | 300  | 65                     | 72 | 75 | 62                      | 57 | 57 | 65     | 61 | 61 | 73             | 68 | 68 | 27          | 34 | 34.5 | 220       | 0.53        | 110             | 26.5           |
| EVXPQ-D4FNH  | 350             | 400  | 400  | 70                     | 75 | 78 | 62                      | 57 | 57 | 65     | 60 | 60 | 74             | 69 | 69 | 31          | 37 | 37.5 | 220       | 0.65        | 145             | 33             |
| EVXPQ-D6FNH  | 500             | 600  | 600  | 79                     | 82 | 87 | 63                      | 59 | 59 | 67     | 61 | 61 | 76             | 70 | 70 | 29          | 35 | 39   | 220       | 0.92        | 195             | 38             |
| EVXPQ-D8FNH  | 700             | 800  | 800  | 82                     | 86 | 90 | 57                      | 55 | 55 | 63     | 57 | 57 | 74             | 68 | 68 | 34          | 39 | 41   | 220       | 1.7         | 355             | 62             |
| EVXPQ-D10FNH | 900             | 1000 | 1000 | 70                     | 75 | 76 | 60                      | 58 | 58 | 64     | 62 | 62 | 76             | 70 | 70 | 34          | 38 | 42   | 220       | 2.1         | 440             | 72             |
| EVXPQ-D13FNH | 1000            | 1300 | 1300 | 65                     | 75 | 80 | 58                      | 56 | 56 | 62     | 59 | 59 | 76             | 70 | 70 | 38          | 41 | 43   | 220       | 3.4         | 710             | 81             |

## DIMENSIONS



EVXPQ-D3~6FNH

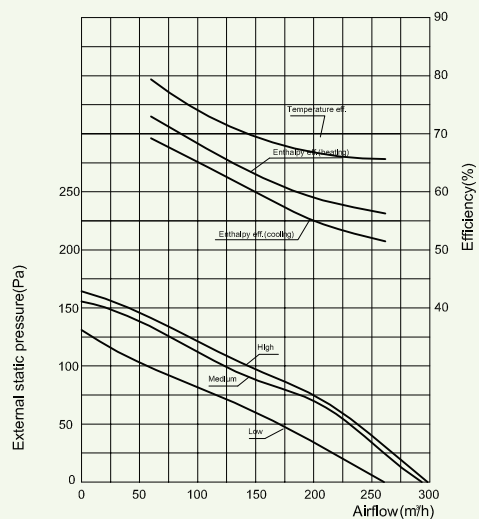


EVXPQ-D2FNH

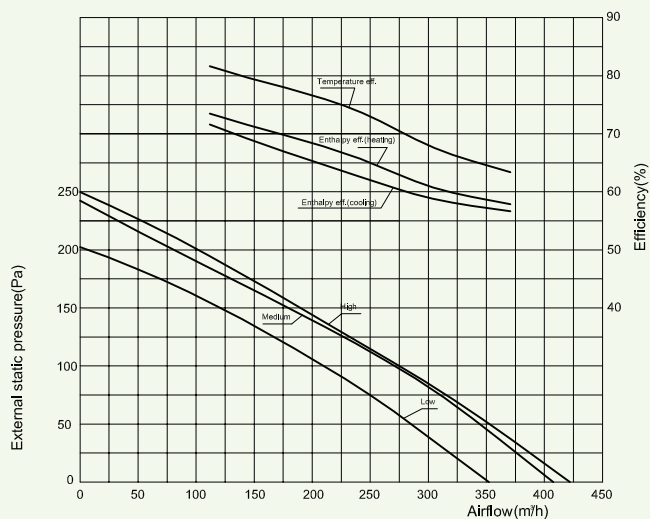
| Model        | L    | L1   | W    | W1   | W2  | H   | H1  | C   | G    | N     |
|--------------|------|------|------|------|-----|-----|-----|-----|------|-------|
| EVXPQ-D2FNH  | 736  | 795  | 580  | 510  | 290 | 264 | 20  | 100 | 20.5 | Φ144  |
| EVXPQ-D3FNH  | 814  | 745  | 599  | 657  | 315 | 270 | 111 | 100 | 20.5 | Φ144  |
| EVXPQ-D4FNH  | 814  | 745  | 804  | 860  | 480 | 270 | 111 | 100 | 20.5 | Φ144  |
| EVXPQ-D6FNH  | 894  | 824  | 904  | 960  | 500 | 270 | 111 | 107 | 20.5 | Φ194  |
| EVXPQ-D8FNH  | 1186 | 1115 | 884  | 940  | 428 | 388 | 170 | 85  | 19   | Φ 242 |
| EVXPQ-D10FNH | 1186 | 1115 | 1134 | 1190 | 678 | 388 | 170 | 85  | 19   | Φ 242 |
| EVXPQ-D13FNH | 1199 | 1129 | 1216 | 1273 | 321 | 388 | -   | 85  | 19   | Φ 242 |

## Performance Curves

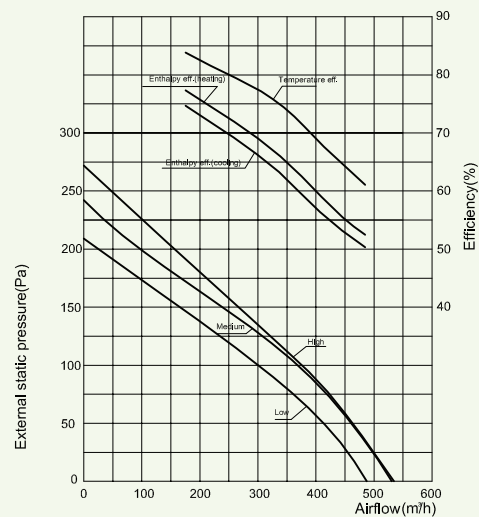
EVXPQ-D2FNH Performance Chart



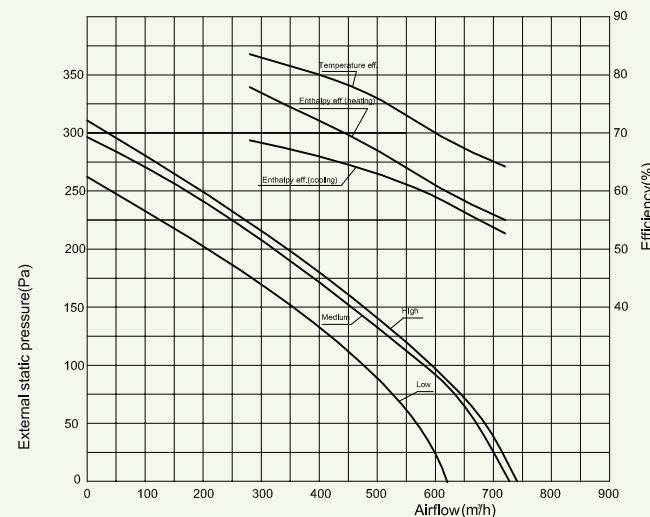
EVXPQ-D3FNH Performance Chart



EVXPQ-D4FNH Performance Chart

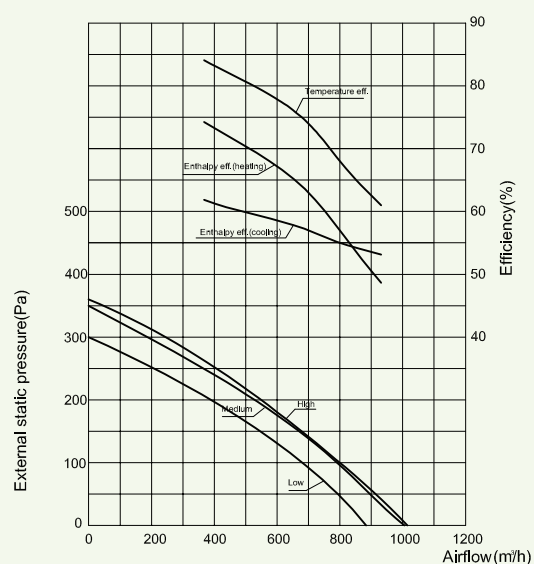


EVXPQ-D6FNH Performance Chart

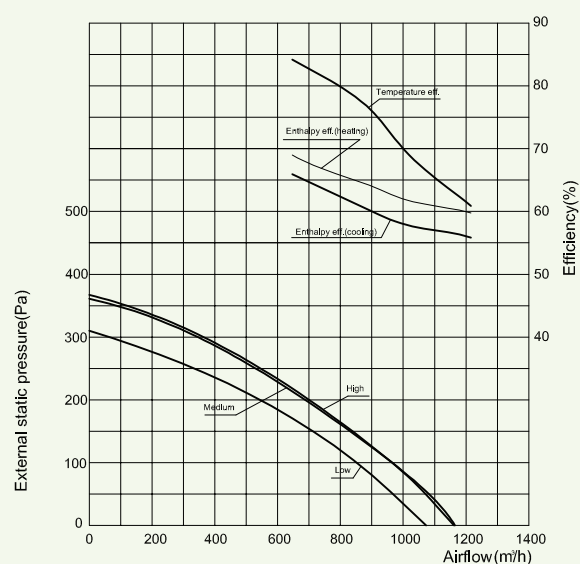


## Performance Curves

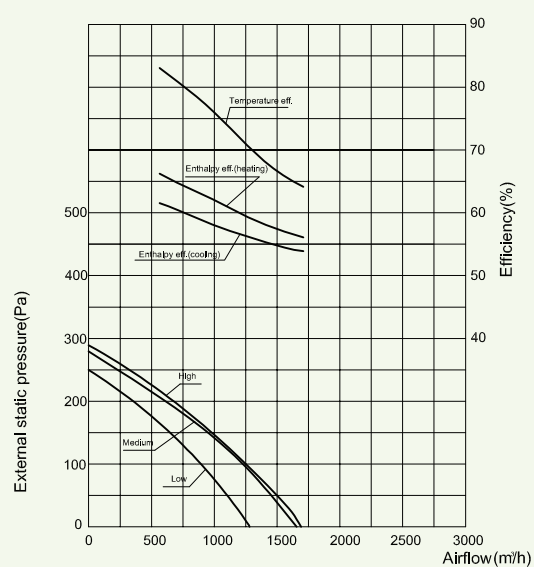
EVXPQ-D8FNH Performance Chart



EVXPQ-D10FNH Performance Chart

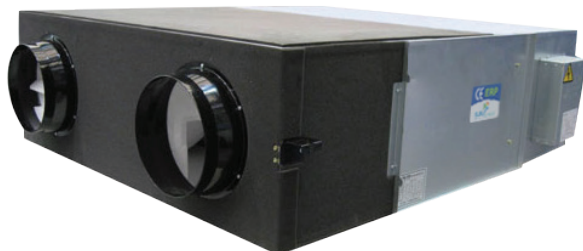


EVXPQ-D13FNH Performance Chart



## HP SERIES, SUSPENDED TYPE

## FEATURES



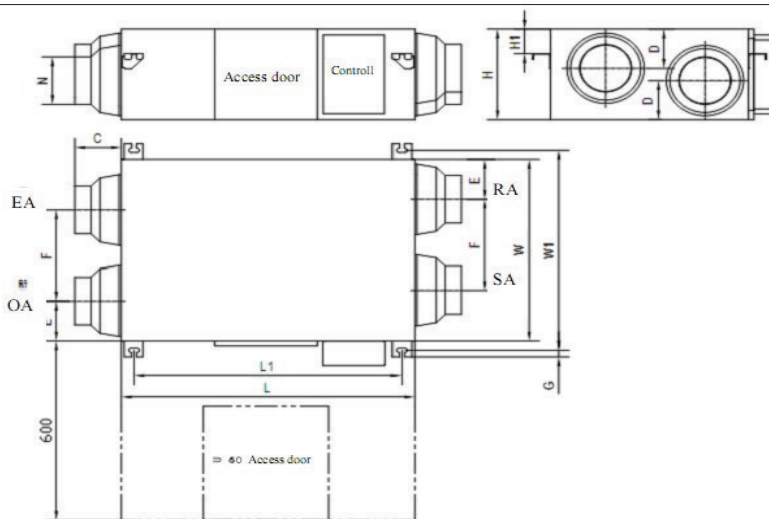
EVXPQ-D1.5HP~D10HP

- Airflow from 150-1300m<sup>3</sup>/h
- Crossflow heat exchanger
- By-pass function, night cooling
- Intelligent control, touch screen display as option
- High external static pressure, longer ductwork available on project basis.
- Heat or energy recovery
- Quiet operation
- Double filters
- Easy installation to ceiling

## SPECIFICATIONS

| Model        | Airflow 2 m <sup>3</sup> /h <sup>3</sup> |      |      | External pressure (Pa) |     |     | Enthalpy Efficiency (%) |    |    |        |    |    | Temp. Eff. (%) |    |    | Noise |    |    | Volt. (V) | Current (A) | Input power (W) | N. W. (Kg) |
|--------------|------------------------------------------|------|------|------------------------|-----|-----|-------------------------|----|----|--------|----|----|----------------|----|----|-------|----|----|-----------|-------------|-----------------|------------|
|              | L                                        | M    | H    | L                      | M   | H   | Summer                  |    |    | Winter |    |    | L              | M  | H  | L     | M  | H  |           |             |                 |            |
| EVXPQ-D1.5HP | 100                                      | 150  | 150  | 49                     | 69  | 80  | 64                      | 60 | 60 | 65     | 62 | 62 | 75             | 72 | 72 | 21    | 25 | 27 | 220       | 0.52        | 108             | 28         |
| EVXPQ-D2.5HP | 160                                      | 250  | 250  | 30                     | 48  | 60  | 60                      | 56 | 56 | 62     | 60 | 60 | 72             | 69 | 69 | 23    | 26 | 29 | 220       | 0.55        | 115             | 28         |
| EVXPQ-D3.5HP | 230                                      | 350  | 350  | 90                     | 100 | 120 | 65                      | 61 | 61 | 66     | 63 | 63 | 76             | 73 | 73 | 24    | 29 | 32 | 220       | 0.85        | 178             | 40         |
| EVXPQ-D5HP   | 330                                      | 500  | 500  | 30                     | 72  | 95  | 62                      | 60 | 60 | 63     | 61 | 61 | 74             | 71 | 71 | 25    | 31 | 34 | 220       | 0.95        | 200             | 40         |
| EVXPQ-D8HP   | 680                                      | 800  | 800  | 120                    | 125 | 170 | 58                      | 55 | 55 | 64     | 57 | 57 | 75             | 68 | 68 | 31    | 37 | 39 | 220       | 2.8         | 585             | 60         |
| EVXPQ-D10HP  | 840                                      | 1000 | 1000 | 105                    | 120 | 175 | 60                      | 57 | 57 | 63     | 61 | 61 | 75             | 69 | 69 | 33    | 38 | 40 | 220       | 3.3         | 690             | 79         |

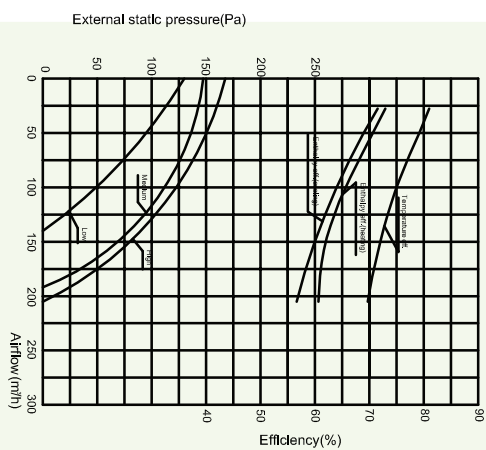
## DIMENSIONS



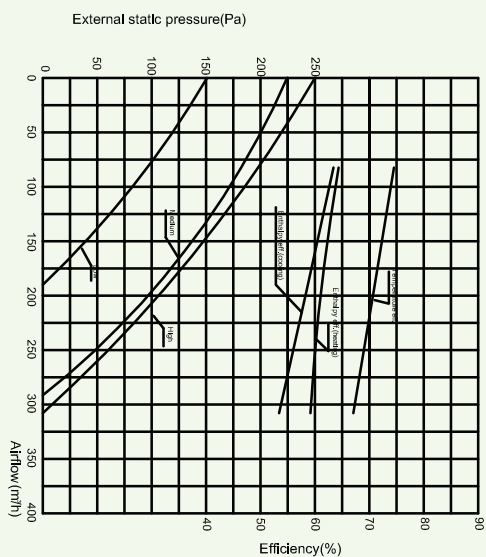
| Model        | L    | L1   | W    | W1   | H   | H1  | N    | C   | D   | E   | F   | G  |
|--------------|------|------|------|------|-----|-----|------|-----|-----|-----|-----|----|
| EVXPQ-D1.5HP | 816  | 745  | 554  | 611  | 278 | 75  | Φ96  | 145 | 120 | 122 | 278 | 21 |
| EVXPQ-D2.5HP | 816  | 745  | 554  | 611  | 278 | 75  | Φ146 | 130 | 120 | 122 | 278 | 21 |
| EVXPQ-D3.5HP | 900  | 830  | 800  | 857  | 307 | 128 | Φ146 | 130 | 126 | 140 | 415 | 21 |
| EVXPQ-D5HP   | 900  | 830  | 800  | 857  | 307 | 128 | Φ196 | 85  | 126 | 140 | 415 | 21 |
| EVXPQ-D8HP   | 1126 | 1056 | 834  | 891  | 388 | 169 | Φ242 | 86  | 157 | 152 | 436 | 21 |
| EVXPQ-D10HP  | 1129 | 1060 | 1216 | 1273 | 388 | 171 | Φ242 | 86  | 147 | 152 | 621 | 21 |



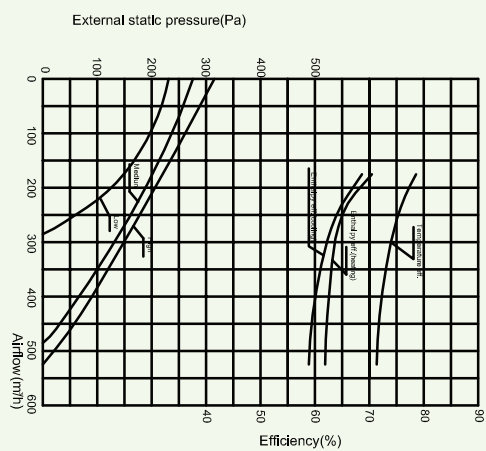
EVXPQ-D1.5HP Performance Chart



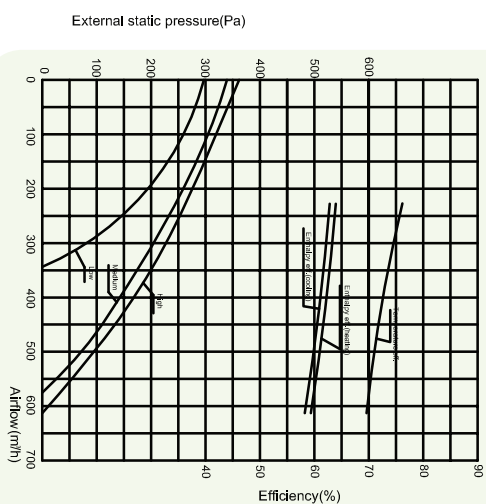
EVXPQ-D2.5HP Performance Chart



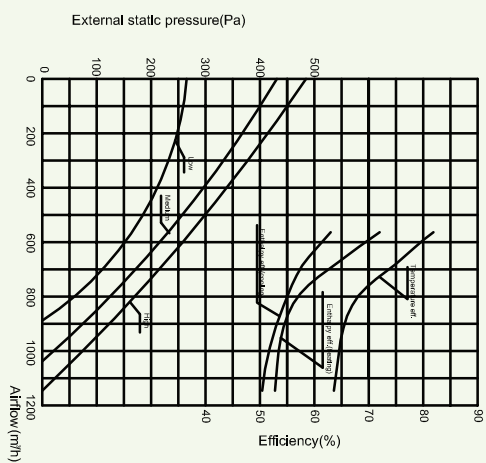
EVXPQ-D3.5HP Performance Chart



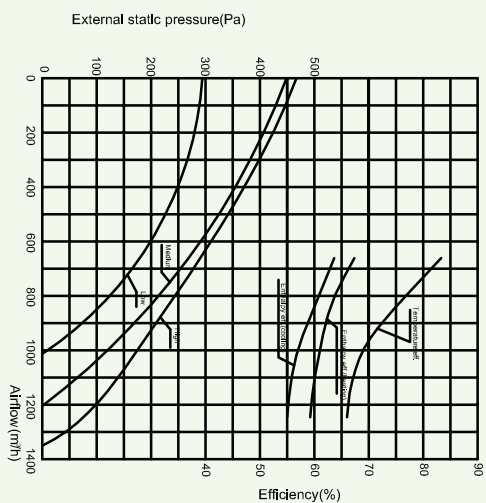
EVXPQ-D5HP Performance Chart



EVXPQ-D8HP Performance Chart



EVXPQ-D10HP Performance Chart



## MA MEDIUM AIRFLOW SERIES



EVXPQ-D15TMA~D20TMA  
EVXPX-D15TMA~D30TMA



EVXPQ-D40MA~D60MA  
EVXPX-D40MA~D60MA



EVXPQ-D25TMA~D30TMA  
EVXPX-D25TMA~D30TMA



EVXPQ-D40TMA~D60TMA  
EVXPX-D15TMA~D30TMA

## APPLICATION

Suitable for meeting room, laboratory, office, computer room, dining room, indoor swimming pool, shop and gym places etc.

## FEATURES

- Airflow from 1500-6000m<sup>3</sup>/h
- Heat or energy recovery
- Both suspended installation and floor installation available

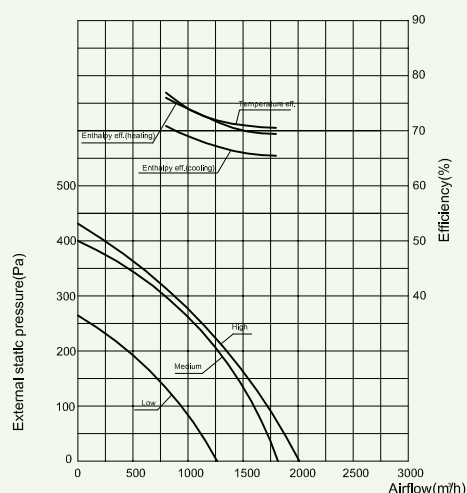
## SPECIFICATIONS

| Model        | Airflow |      |      | External pressure |     |     | Enthalpy Efficiency (%) |    |    |    |    |    | Temp. Eff. (%) |    |    |    |    |    | Volt. (V) | Current (A) | Input power (W) | N. W. (Kg) |
|--------------|---------|------|------|-------------------|-----|-----|-------------------------|----|----|----|----|----|----------------|----|----|----|----|----|-----------|-------------|-----------------|------------|
|              | L       | M    | H    | L                 | M   | H   | L                       | M  | H  | L  | M  | H  | L              | M  | H  | L  | M  | H  |           |             |                 |            |
| EVXPQ-D15TMA | 1000    | 1500 | 1500 | 84                | 135 | 163 | 69                      | 66 | 66 | 74 | 70 | 70 | 74             | 71 | 71 | 40 | 42 | 45 | 220       | 6.6         | 1380            | 120        |
| EVXPQ-D15TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 76             | 74 | 74 |    |    |    |           |             |                 | 132        |
| EVXPQ-D20TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 76             | 74 | 74 |    |    |    |           |             |                 | 125        |
| EVXPQ-D20TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 76             | 74 | 74 |    |    |    |           |             |                 | 137        |
| EVXPQ-D25TMA | 1200    | 2000 | 2000 | 110               | 132 | 176 | 65                      | 62 | 62 | 73 | 71 | 71 | 74             | 71 | 71 | 44 | 46 | 49 | 220       | 7.4         | 1550            | 120        |
| EVXPQ-D25TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 76             | 74 | 74 |    |    |    |           |             |                 | 140        |
| EVXPQ-D25TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 76             | 74 | 74 |    |    |    |           |             |                 | 125        |
| EVXPQ-D25TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 76             | 74 | 74 |    |    |    |           |             |                 | 145        |
| EVXPQ-D25TMA | 2000    | 2500 | 2500 | 140               | 170 | 200 | 64                      | 61 | 61 | 72 | 70 | 70 | 73             | 70 | 70 | 47 | 50 | 53 | 220       | 8.6         | 1800            | 160        |
| EVXPQ-D25TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 74             | 72 | 72 |    |    |    |           |             |                 | 195        |
| EVXPQ-D25TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 74             | 72 | 72 |    |    |    |           |             |                 | 165        |
| EVXPQ-D25TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 74             | 72 | 72 |    |    |    |           |             |                 | 200        |
| EVXPQ-D30TMA | 2500    | 3000 | 3000 | 150               | 180 | 210 | 63                      | 60 | 60 | 71 | 69 | 69 | 73             | 70 | 70 | 48 | 51 | 54 | 220       | 10.0        | 2100            | 165        |
| EVXPQ-D30TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 74             | 72 | 72 |    |    |    |           |             |                 | 198        |
| EVXPQ-D30TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 74             | 72 | 72 |    |    |    |           |             |                 | 170        |
| EVXPQ-D30TMA |         |      |      |                   |     |     | -                       | -  | -  | -  | -  | -  | 74             | 72 | 72 |    |    |    |           |             |                 | 208        |

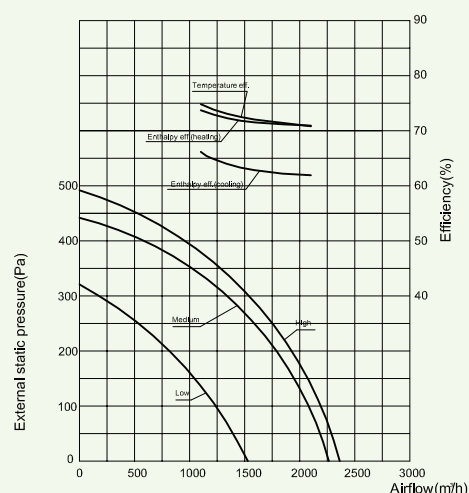
| Model       | Airflow<br>2 m <sup>3</sup> /h3 | External pressure<br>(Pa) | Enthalpy Efficiency (%) |        | Temp. Eff. (%) | Noise | Volt. (V) | Current (A) | Rated power (W) | N. W. (Kg) |
|-------------|---------------------------------|---------------------------|-------------------------|--------|----------------|-------|-----------|-------------|-----------------|------------|
|             |                                 |                           | Summer                  | Winter |                |       |           |             |                 |            |
| EVXPQ-D40MA | 4000                            | 260                       | 62                      | 69     | 70             | 59    | 380       | 7.6         | 3000            | 285        |
| EVXPQ-D40MA |                                 |                           | -                       | -      | 72             |       |           |             |                 | 266        |
| EVXPQ-D40MA |                                 |                           | -                       | -      | 72             |       |           |             |                 | 290        |
| EVXPQ-D40MA |                                 |                           | -                       | -      | 72             |       |           |             |                 | 281        |
| EVXPQ-D50MA | 5000                            | 260                       | 61                      | 64     | 70             | 68    | 380       | 11          | 4400            | 360        |
| EVXPQ-D50MA |                                 |                           | -                       | -      | 72             |       |           |             |                 | 342        |
| EVXPQ-D50MA |                                 |                           | -                       | -      | 72             |       |           |             |                 | 365        |
| EVXPQ-D50MA |                                 |                           | -                       | -      | 72             |       |           |             |                 | 362        |
| EVXPQ-D60MA | 6000                            | 300                       | 60                      | 62     | 68             | 70    | 380       | 14          | 6000            | 365        |
| EVXPQ-D60MA |                                 |                           | -                       | -      | 69             |       |           |             |                 | 342        |
| EVXPQ-D60MA |                                 |                           | -                       | -      | 69             |       |           |             |                 | 370        |

## Performance Curves

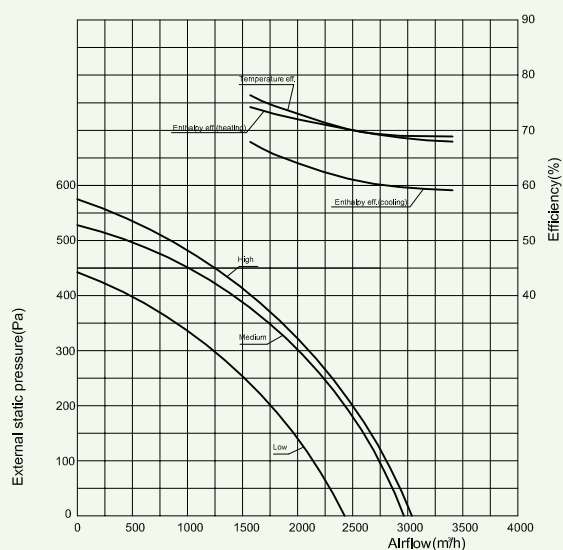
EVXPQ-D15MA Performance Chart



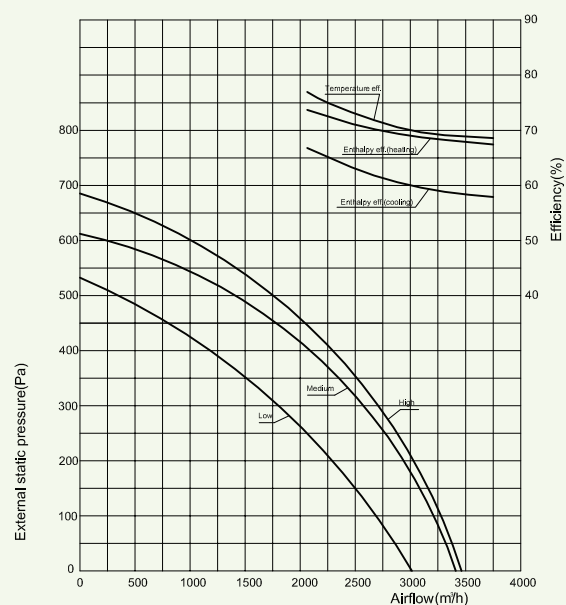
EVXPQ-D20MA Performance Chart



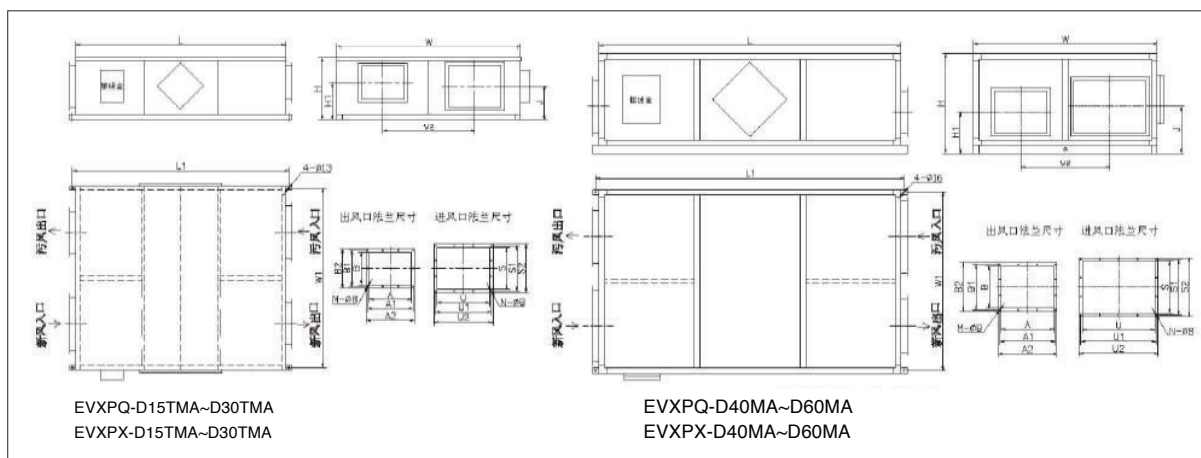
EVXPQ-D25MA Performance Chart



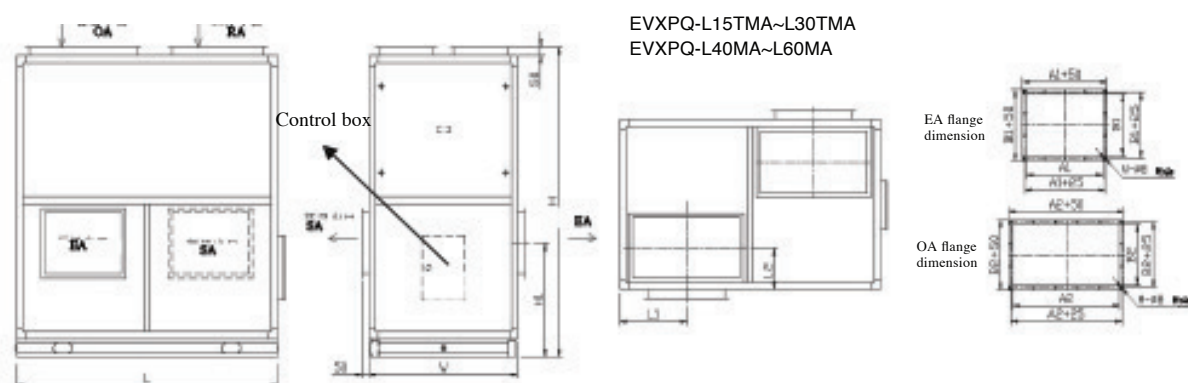
EVXPQ-D30MA Performance Chart



## DIMENSIONS



| Model                      | L    | L1   | W    | W1   | W2  | H   | H1  | J   | A   | A1  | A2  | B   | B1  | B2  | S   | S1  | S2  | U   | U1  | U2  | M  | N  |
|----------------------------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| EVXPQ-D15TMA, EVXPX-D15TMA | 1428 | 1476 | 1202 | 1170 | 600 | 476 | 284 | 260 | 320 | 345 | 370 | 250 | 275 | 300 | 320 | 345 | 370 | 400 | 425 | 450 | 10 | 12 |
| EVXPQ-D20TMA, EVXPX-D20TMA | 1428 | 1476 | 1202 | 1170 | 600 | 476 | 284 | 260 | 320 | 345 | 370 | 250 | 275 | 300 | 320 | 345 | 370 | 400 | 425 | 450 | 10 | 12 |
| EVXPQ-D25TMA, EVXPX-D25TMA | 1700 | 1750 | 1402 | 1370 | 700 | 600 | 231 | 329 | 400 | 425 | 450 | 250 | 275 | 300 | 350 | 375 | 400 | 500 | 525 | 550 | 10 | 14 |
| EVXPQ-D30TMA, EVXPX-D30TMA | 1800 | 1850 | 1500 | 1470 | 730 | 665 | 231 | 363 | 400 | 425 | 450 | 250 | 275 | 300 | 350 | 375 | 400 | 500 | 525 | 550 | 10 | 14 |
| EVXPQ-D40MA, EVXPX-D40MA   | 2300 | 2350 | 1400 | 1360 | 680 | 760 | 315 | 355 | 400 | 425 | 450 | 320 | 345 | 370 | 400 | 425 | 450 | 550 | 575 | 600 | 12 | 14 |
| EVXPQ-D50MA, EVXPX-D50MA   | 2700 | 2750 | 1700 | 1660 | 830 | 900 | 320 | 395 | 500 | 525 | 550 | 350 | 375 | 400 | 500 | 525 | 550 | 600 | 625 | 650 | 14 | 16 |
| EVXPQ-D60MA, EVXPX-D60MA   | 2700 | 2750 | 1700 | 1660 | 830 | 900 | 320 | 395 | 500 | 525 | 550 | 350 | 375 | 400 | 500 | 525 | 550 | 600 | 625 | 650 | 14 | 16 |



| Model                      | L    | L1  | L2  | W   | H    | H1  | A1  | B1  | A2  | B2  | M  | N  |
|----------------------------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|----|----|
| EVXPQ-L15TMA, EVXPX-L15TMA | 1450 | 372 | 190 | 614 | 1220 | 428 | 320 | 250 | 450 | 250 | 10 | 10 |
| EVXPQ-L20TMA, EVXPX-L20TMA | 1450 | 372 | 190 | 614 | 1220 | 428 | 320 | 250 | 450 | 250 | 10 | 10 |
| EVXPQ-L25TMA, EVXPX-L25TMA | 1550 | 398 | 190 | 754 | 1359 | 510 | 400 | 250 | 550 | 250 | 10 | 10 |

## CONTROL SYSTEM

### Standard control panel

#### HDK-08S

3 Speeds  
Switch of normal ventilation and energy recovery  
Indoor temperature measurement  
Weekly timer (4 period per day, 7 days per week)  
filter alarm



Suitable models: EVXPQ-D1.5TLE~D20TLE, EVXPQ-D2THE~D13THE, EVXPQ-D1.5HP~D10HP, EVXPQ-W3TC~W10TC, EVXPQ-G3T

#### HDK-09D

Independent ON/OFF of supply and exhaust fan  
Indoor temperature measurement  
Temperature value revision



Suitable models: EVXPQ-D40D~D60D, EVXPQ-D40D~D60D, EVXPQ-L40D~L60D, EVXPQ-L40D~L60D

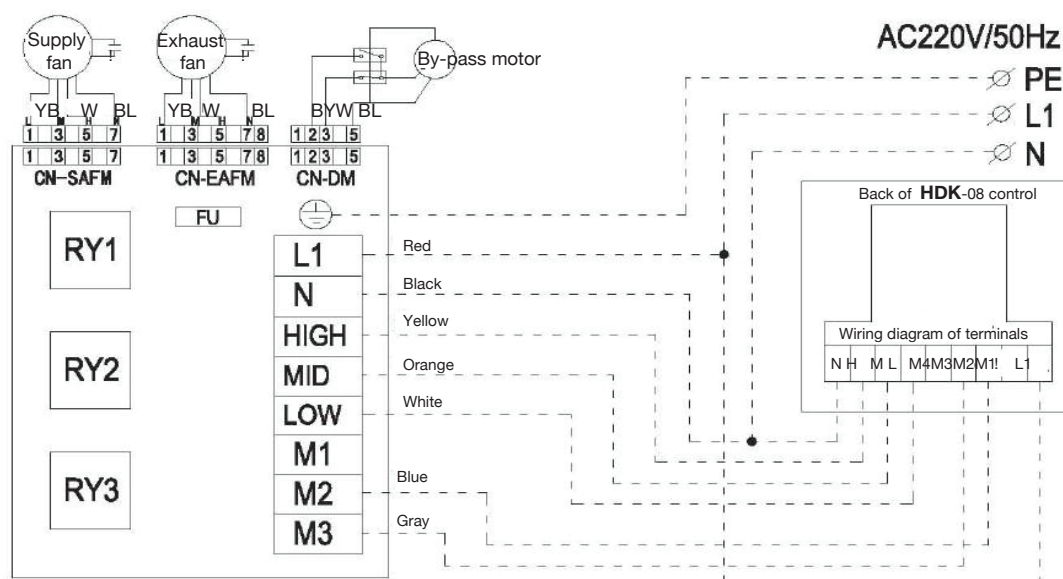
#### HDK-20B

3 Speeds  
Independent ON/OFF of supply and exhaust fan  
Indoor temperature measurement  
Temperature value revision  
Time display  
Optional weekly ON/OFF



Suitable models: EVXPQ-D15TD~D30TD, EVXPQ-L15TD~L30TD, EVXPQ-D15TD~D30TD, EVXPQ-L15TD~L30TD

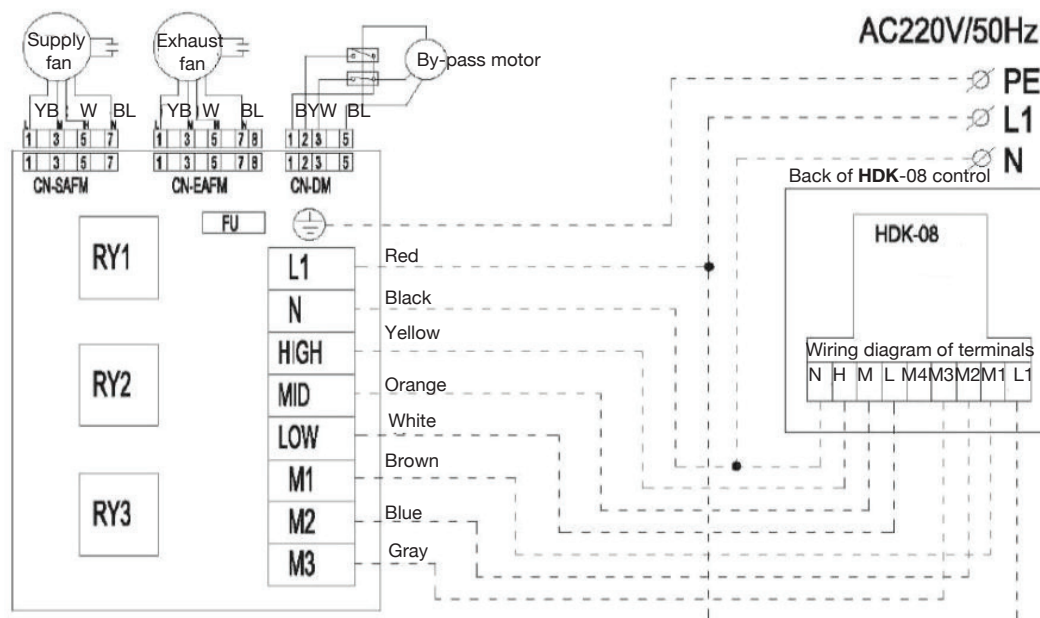
### Control Circuit



The wiring of the broken lines should be operated by the constructor in installation

Suitable models:  
EVXPQ-D1.5TLE~D5TLE, EVXPQ-D2THE~D6THE, EVXPQ-D1.5HP~D5HP

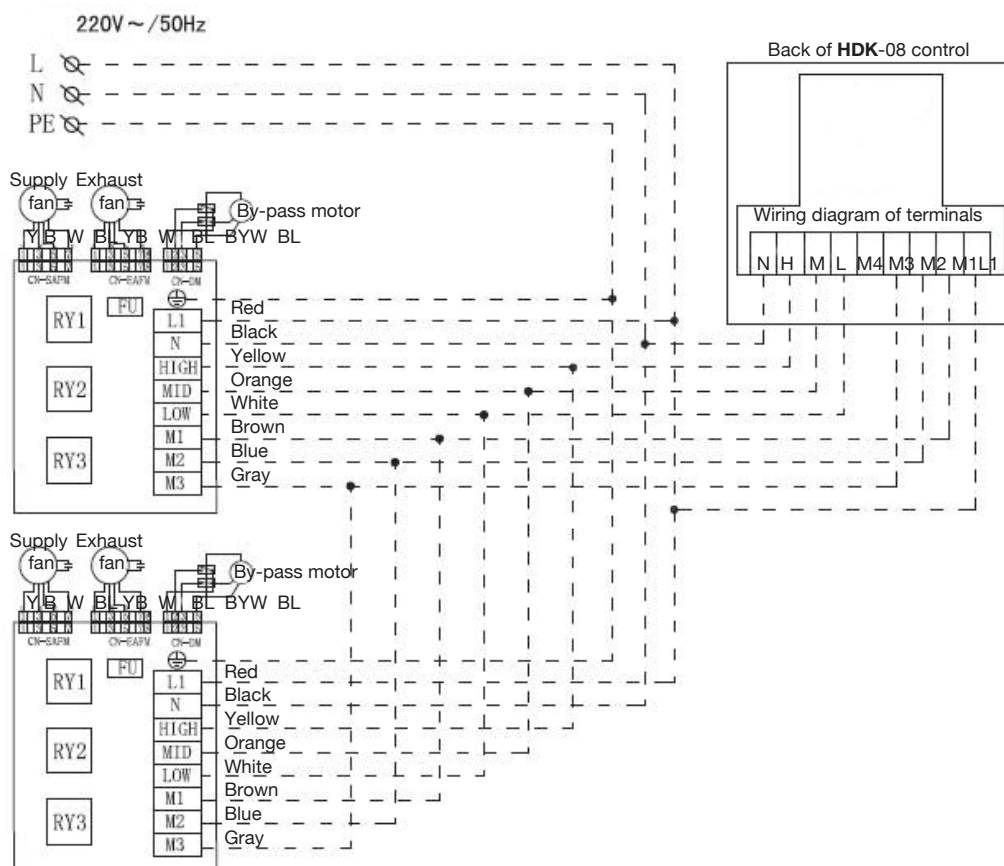
## CONTROL SYSTEM



The wiring of the broken lines should be operated by the constructor in installation

Suitable model:

EVXPQ-D6.5TLE~D10TLE, EVXPQ-D8THE~D10TH, EVXPQ-D8HP~D10HP

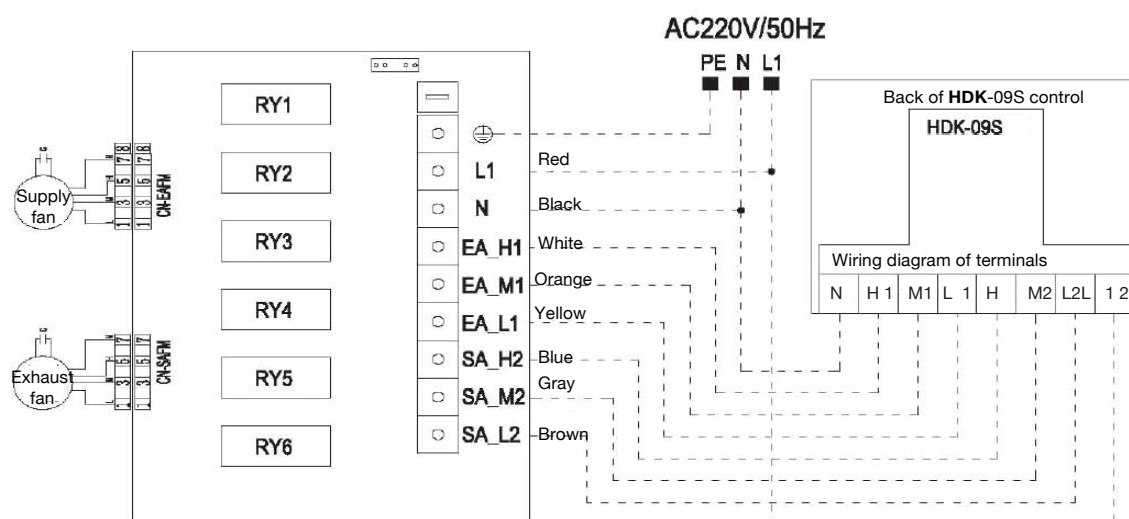


The wiring of the broken lines should be operated by the constructor in installation

Suitable model:

EVXPQ-W3TC-W10TC, EVXPQ-G3T

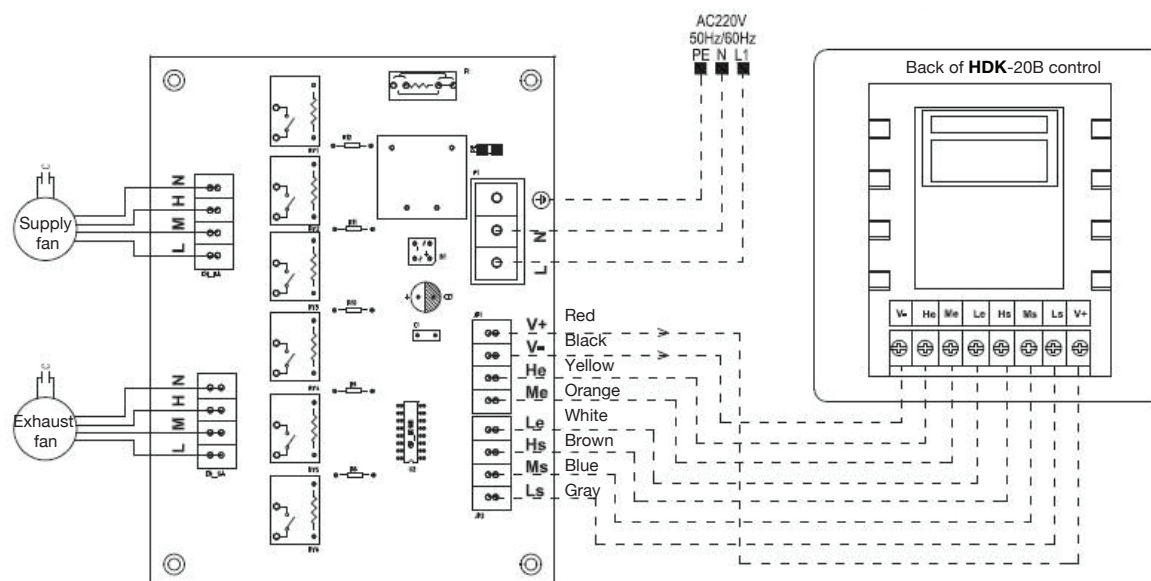
## CONTROL SYSTEM



The wiring of the broken lines should be operated by the constructor in installation

Suitable model:

EVXPQ(X)-D15TD~D20TD, EVXPQ(X)-L15TD~L20TD



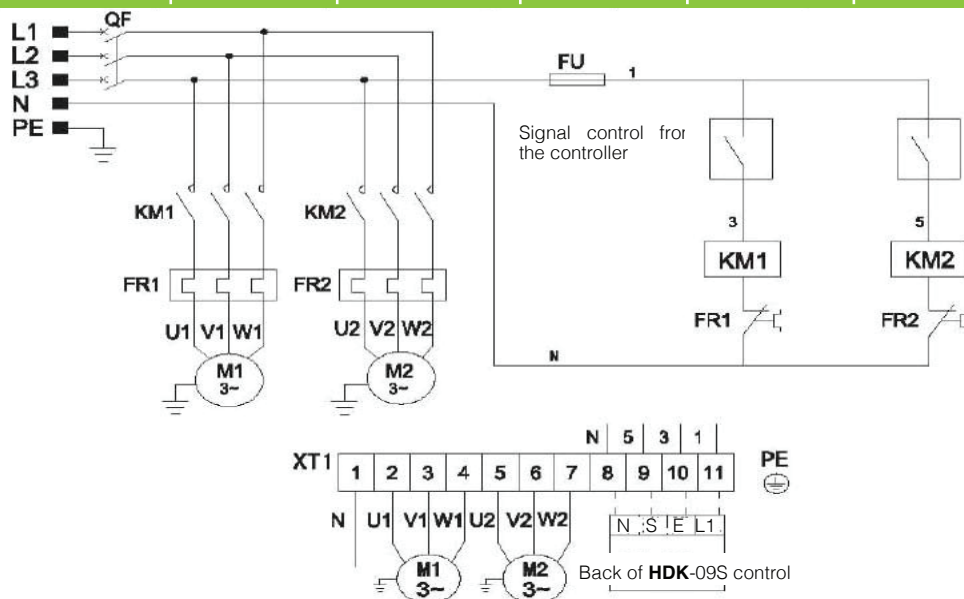
The wiring of the broken lines should be operated by the constructor in installation

Suitable model:

EVXPQ-D25TD~D30TD, EVXPQ-L25TD~L30TD

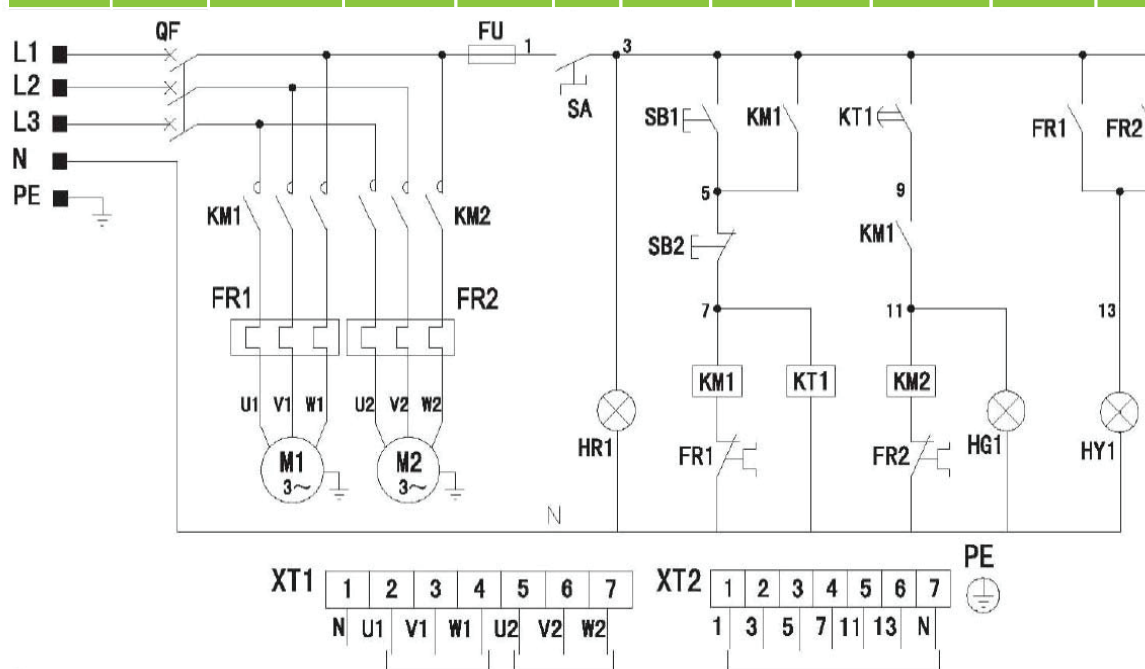
## CONTROL SYSTEM

| Connect to power<br>AC380V | Exhaust fan<br>primary loop | Supply fan primary<br>loop | Fuse | Exhaust fan<br>Control loop -<br>start/stop | Supply fan<br>Control loop -<br>start/stop |
|----------------------------|-----------------------------|----------------------------|------|---------------------------------------------|--------------------------------------------|
|----------------------------|-----------------------------|----------------------------|------|---------------------------------------------|--------------------------------------------|



Suitable model:  
EVXPQ(X)-D40D~D60D, EVXPQ(X)-L40D~L60D

| Connect to power<br>380V | Air Switch | Exhaust fan<br>primary loop | Supply fan<br>primary loop | Fuse | Switch | Power indicator | control circuit |       |              |                   | Fault alarm |
|--------------------------|------------|-----------------------------|----------------------------|------|--------|-----------------|-----------------|-------|--------------|-------------------|-------------|
|                          |            |                             |                            |      |        |                 | Exhaust first   | Delay | Supply start | Running indicator |             |



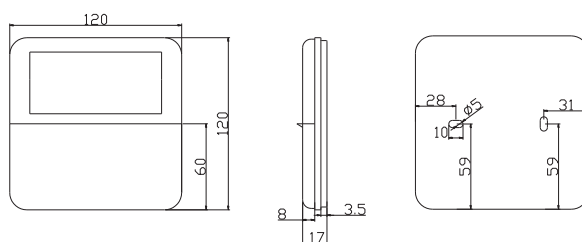
Exhaust fan Supply fan Connection

Suitable model:  
EVXPQ(X)-L75D~L200D

## CONTROL SYSTEM



## DIMENSIONS



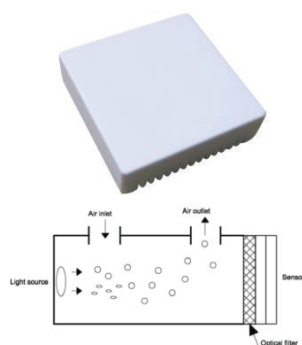
## Accessories of HDK-10-07

### Multiple Control Panel HDK-10-07-1



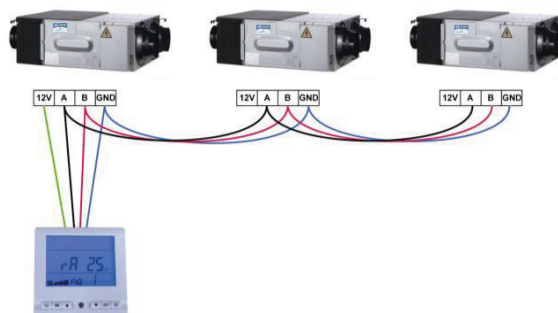
#### Smart as always

- Fan speed selection
- Temperature display
- Data memory/power to restart
- Auto bypass
- Auto defrosting
- Optional CO<sub>2</sub> concentration control function
- Working condition monitor
- Error display
- Fire alarm function



## CO<sub>2</sub> Sensor

- NDIR infrared CO<sub>2</sub> detection
- CO<sub>2</sub> concentration detection
- Indoor air quality detection
- Ventilation control system,
- Building and hospital CO<sub>2</sub> detection,
- Air conditioner, air purifier
- Mushroom farm CO<sub>2</sub> control.
- NDIR infrared measurement



- Multiple unit control, max. 16 units
- All unit on/o and individual unit on/o available
- Individual unit running status monitor