

# An improved air pathway structure helps reduce power consumption and noise.

External static pressure, airflow rate, and return-air intake direction can be changed according to customer needs.

### Reduced power consumption and noise

The structure realizes smooth airflow to reduce pressure loss in the air pathway. Additionally, the inner pipes of its heat exchanger have been downsized from ø9.52 to ø7.0 to contain a larger number of pipings.

The combination of the structure and components contributes to reducing power consumption and operation noise.









\*The sound pressure level during operation is measured at a distance 1.5 m from the front side and bottom side of the unit in an anechoic room.

\*Measurement conditions (External static pressure: 40Pa; Fan speed: High) \*The unit consumes the same power in both cooling and heating modes.



The latest model (P32) has a 36% smaller footprint compared to the PFFY-VLRMM, owing to a redesigning of the positions of the inner components.



### Flexible airflow and external static pressure setting

Airflow rate and external static pressure can be selected to suit various installation conditions.

|              | Airflow rate can be sele | ected from 3 patterns. | External sta                     | External static pressure can be selected from 4 patterns. |            |  |  |
|--------------|--------------------------|------------------------|----------------------------------|---|------------|--|--|
|              |                          |                        |                                  |   |            |  |  |
|              | PFFY-P VCM               | Low/Mid/High           |                                  | PFFY-P VCM  | 0-10-40-60 |  |  |
| Airflow rate | PFFY-P VLRMM             | Low/Mid/High           | External static<br>pressure (Pa) | PFFY-P VLRMM  | 20-40-60   |  |  |
|              | PFFY-P VLRM              | P VLRM Low-High        |                                  | PFFY-P VLRM   | 0          |  |  |

## Flexible installation

#### Selectable air inlet pattern

Air inlet can be selected from two patterns, bottom suction or front suction, by changing the panel, fan guard and filter.



\*1 Select a site where the flow of supply air is not blocked. The unit cannot be placed directly on the floor in the case of bottom suction.
\*2 Front suction makes more noise than bottom suction. Bottom suction is recommended when installing the unit in rooms that need to be quiet, such as bedrooms.

#### Floor standing with legs

The unit can be placed on the floor with the supplied legs attached.

with

Floor standing



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## Floor standing type **R410A** Concealed type **PFFY-P VCM-E**

|  |                        | PFFY-P20VCM-E                            | PFFY-P25VCM-E                         | PFFY-P32VCM-E                         | PFFY-P40VCM-E                         | PFFY-P50VCM-E                         | PFFY-P63VCM-E                         |                                       |  |
|--|------------------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|
| Power source                                     |                        | 1-phase 220-230-240 V 50/60 Hz           |                                       |                                       |                                       |                                       |                                       |                                       |  |
| Cooling capa                                     | acity *1               | kW                                       | 2.2                                   | 2.8                                   | 3.6                                   | 4.5                                   | 5.6                                   | 7.1                                   |  |
| (Nominal)  | *1                     | BTU/h                                    | 7,500                                 | 9,600                                 | 12,300                                | 15,400                                | 19,100                                | 24,200                                |  |
| *2   | Power input            | kW                                       | 0.022                                 | 0.026                                 | 0.031                                 | 0.038                                 | 0.052                                 | 0.058                                 |  |
| *2   | Current input          | А  | 0.25                                  | 0.30                                  | 0.34                                  | 0.38                                  | 0.50                                  | 0.49                                  |  |
| Heating capa                                     | acity *3               | kW                                       | 2.5                                   | 3.2                                   | 4.0                                   | 5.0                                   | 6.3                                   | 8.0                                   |  |
| (Nominal)  | *3                     | BTU/h                                    | 8,500                                 | 10,900                                | 13,600                                | 17,100                                | 21,500                                | 27,300                                |  |
| *2   | Power input            | kW                                       | 0.022                                 | 0.026                                 | 0.031                                 | 0.038                                 | 0.052                                 | 0.058                                 |  |
| *2   | Current input          | Α  | 0.25                                  | 0.30                                  | 0.34                                  | 0.38                                  | 0.50                                  | 0.49                                  |  |
| External finish                                  |                        |  | Galvanized steel plate                |  |
| External dime                                    | ension *4              | mm                                       | 615 (690) x 700 x 200                 | 615 (690) x 700 x 200                 | 615 (690) x 700 x 200                 | 615 (690) x 900 x 200                 | 615 (690) x 900 x 200                 | 615 (690) x 1,100 x 200               |  |
| H x W x D  |                        | in.                                      | 24-1/4 (27-3/16) x<br>27-9/16 x 7-7/8 | 24-1/4 (27-3/16) x<br>27-9/16 x 7-7/8 | 24-1/4 (27-3/16) x<br>27-9/16 x 7-7/8 | 24-1/4 (27-3/16) x<br>35-7/16 x 7-7/8 | 24-1/4 (27-3/16) x<br>35-7/16 x 7-7/8 | 24-1/4 (27-3/16) x<br>43-5/16 x 7-7/8 |  |
| Net weight kg<br>(lbs)                           |                        | 18 (40)                                  | 18 (40)                               | 18.5 (42)                             | 22.5 (51)                             | 22.5 (51)                             | 25.5 (58)                             |                                       |  |
| Heat exchanger                                   |                        | Cross fin (Aluminum fin and copper tube) |                                       |                                       |                                       |                                       |                                       |                                       |  |
| FAN<br>*5  | Type x Quantity        |  | Sirocco fan x 2                       | Sirocco fan x 2                       | Sirocco fan x 2                       | Sirocco fan x 3                       | Sirocco fan x 3                       | Sirocco fan x 4                       |  |
|  | External static press. | Pa                                       | <0> - 10 - <40> - <60>                | <0> - 10 - <40> - <60>                | <0> - 10 - <40> - <60>                | <0> - 10 - <40> - <60>                | <0> - 10 - <40> - <60>                | <0> - 10 - <40> - <60>                |  |
|  |                        | $mmH_2O$                                 | <0.0> - 1.0 - <4.1> - <6.1>           | <0.0> - 1.0 - <4.1> - <6.1>           | <0.0> - 1.0 - <4.1> - <6.1>           | <0.0> - 1.0 - <4.1> - <6.1>           | <0.0> - 1.0 - <4.1> - <6.1>           | <0.0> - 1.0 - <4.1> - <6.1>           |  |
|  | Motor Type             |  | DC motor                              |  |
|  | Motor output           | kW                                       | 0.096                                 | 0.096                                 | 0.096                                 | 0.096                                 | 0.096                                 | 0.096                                 |  |
|  | Driving mechanism      |  | Direct-driven by motor                |  |
| Air flow rate                                    |                        |  | (Low-Mid-High)                        |                                       |                                       |                                       |                                       |                                       |  |
|  |                        | m³/min                                   | 5.0 - 6.0 - 7.0                       | 5.5 - 6.5 - 8.0                       | 5.5 - 7.0 - 8.5                       | 8.0 - 9.5 - 11.0                      | 10.0 - 11.5 - 13.5                    | 12.0 - 14.0 - 16.5                    |  |
|  |                        | L/s                                      | 83 - 100 - 117                        | 92 - 108 - 133                        | 92 - 117 - 142                        | 133 - 158 - 183                       | 167 - 192 - 225                       | 200 - 233 - 275                       |  |
|  |                        | cfm                                      | 177 - 212 - 247                       | 194 - 230 - 282                       | 194 - 247 - 300                       | 282 - 335 - 388                       | 353 - 406 - 477                       | 424 - 494 - 583                       |  |
| Sound pressure level                             |                        | (Low-Mid-High)                           |                                       |                                       |                                       |                                       |                                       |                                       |  |
| (measured in anechoic *2 dB <a:<br>room)</a:<br> |                        | dB <a></a>                               | 21-23-26                              | 22-25-29                              | 23-26-30                              | 25-27-30                              | 28-31-34                              | 28-32-35                              |  |
| Air filter                                       |                        | PP honeycomb fabric.                     | PP honeycomb fabric.                  | PP honeycomb fabric.                  | PP honeycomb fabric.                  | PP honeycomb fabric.                  | PP honeycomb fabric.                  |                                       |  |
| Refrigerant<br>piping<br>diameter                | Liquid (410A)          | mm<br>(in.)                              | 6.35 (1/4)Brazed                      | 9.52 (3/8)Brazed                      |  |
|  | Gas (410A)             | mm<br>(in.)                              | 12.7 (1/2)Brazed                      | 15.88 (5/8)Brazed                     |  |
| Field drain pipe size mm (in.)                   |                        | mm<br>(in.)                              | O.D.32 (1-1/4)                        |  |

#### Notes:

\*1 Nominal cooling conditions Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
\*2 The values are measured at the factory setting of external static pressure.
\*3 Nominal heating conditions Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
\*4 The values in ( ) show the height of unit with leg.
\*5 The factory setting of external static pressure is shown without < >. Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

\*Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.