

# HEAT PUMP OUTDOOR UNITS

## 208/230V | 460V | 575V | 6-16 Ton Systems

| 6-16 Ton Systems                              | Type                                                      |               | Single Unit Systems                         |                                   |                                              |                                   |                                          |                   |
|-----------------------------------------------|-----------------------------------------------------------|---------------|---------------------------------------------|-----------------------------------|----------------------------------------------|-----------------------------------|------------------------------------------|-------------------|
|                                               | Tonnage                                                   |               | 6 Ton                                       | 8 Ton                             | 10 Ton                                       | 12 Ton                            | 14 Ton                                   | 16 Ton            |
| Model                                         | 208/230V, 3PH, 60Hz                                       |               | YVAHP072B32S                                | YVAHP096B32S                      | YVAHP120B32S                                 | YVAHP144B32S                      | YVAHP168B32S                             | YVAHP192B32S      |
|                                               | 460V, 3PH, 60Hz                                           |               | YVAHP072B42S                                | YVAHP096B42S                      | YVAHP120B42S                                 | YVAHP144B42S                      | YVAHP168B42S                             | YVAHP192B42S      |
|                                               | 575V, 3PH, 60Hz                                           |               | YVAHP072B52S                                | YVAHP096B52S                      | YVAHP120B52S                                 | YVAHP144B52S                      | YVAHP168B52S                             | YVAHP192B52S      |
| Nominal Capacity                              | Cooling                                                   | Btu/h         | 72,000                                      | 96,000                            | 120,000                                      | 144,000                           | 168,000                                  | 192,000           |
|                                               | Heating                                                   | Btu/h         | 81,000                                      | 108,000                           | 135,000                                      | 162,000                           | 189,000                                  | 216,000           |
| Performance <sup>2</sup><br>(Non-duct / Duct) | Rated Cooling Capacity <sup>1</sup>                       | Btu/h         | 69,000                                      | 92,000                            | 114,000                                      | 138,000                           | 160,000                                  | 184,000           |
|                                               | EER                                                       | Btu/Wh        | 14.9 / 12.2                                 | 12.4 / 12.4                       | 12.7 / 12.4                                  | 10.9 / 11.2                       | 11.6 / 11.8                              | 10.6 / 11.1       |
|                                               | IEER                                                      | Btu/Wh        | 26.5 / 21.1                                 | 23.9 / 22.1                       | 24.4 / 21.7                                  | 23.9 / 21.2                       | 23.4 / 21.4                              | 21.4 / 20.8       |
|                                               | Rated Heating Capacity <sup>1</sup>                       | Btu/h         | 77,000                                      | 103,000                           | 129,000                                      | 154,000                           | 180,000                                  | 206,000           |
|                                               | COP                                                       | W/W           | 4.25 / 3.54                                 | 3.77 / 3.65                       | 3.84 / 3.55                                  | 3.42 / 3.4                        | 3.65 / 3.56                              | 3.32 / 3.38       |
|                                               | Sound Pressure <sup>7</sup>                               | dB(A)         | 60                                          | 63                                | 63                                           | 65                                | 64                                       | 66                |
| Operating <sup>4</sup><br>Temperature Range   | Cooling <sup>3</sup>                                      | °F DB [°C DB] | 23 ~ 122 [-5 ~ 50]                          |                                   |                                              |                                   |                                          |                   |
|                                               | Heating                                                   | °F WB [°C WB] | -13 ~ 59 [-25 ~ 15]                         |                                   |                                              |                                   |                                          |                   |
| Refrigerant                                   | Type                                                      |               | R410A                                       |                                   |                                              |                                   |                                          |                   |
|                                               | Factory Charge Amount                                     | lb. [kg]      | 15.9 [7.2]                                  | 19.6 [8.9]                        | 21.8 [9.9]                                   | 23.6 [10.7]                       | 24.9 [11.3]                              | 25.6 [11.6]       |
| Refrigerant Piping                            | Liquid Pipe                                               | in. [mm]      | 1/2 [12.7]                                  | 1/2 [12.7]                        | 1/2 [12.7]                                   | 5/8 [15.88]                       | 5/8 [15.88]                              | 5/8 [15.88]       |
|                                               | Gas Pipe                                                  | in. [mm]      | 7/8 [22.2]                                  | 7/8 [22.2]                        | 1-1/8 [28.58]                                | 1-1/8 [28.58]                     | 1-1/8 [28.58]                            | 1-1/8 [28.58]     |
| Connection Ratio                              | Connection Ratio Range <sup>5</sup>                       | %             | 70 - 130 (150)                              | 65 - 130(150)                     | 60 - 130(150)                                | 55 - 130(150)                     |                                          |                   |
|                                               | Number of Indoor Units (Recommended / Maximum)            | Qty.          | 8 / 15                                      | 8 / 20                            | 8 / 26                                       | 10 / 26                           | 12 / 36                                  | 14 / 40           |
| Electrical                                    | Minimum Circuit Amps, MCA (208V/230V/460V/575V)           | A             | 29 / 26 / 15 / 12                           | 39 / 35 / 22 / 16                 | 46 / 42 / 24 / 19                            | 58 / 52 / 30 / 24                 | 65 / 59 / 34 / 27                        | 76 / 68 / 39 / 32 |
|                                               | Maximum Overcurrent Protection, MOP (208V/230V/460V/575V) | A             | 40 / 40 / 20 / 15                           | 50 / 50 / 30 / 25                 | 60 / 60 / 30 / 25                            | 70 / 70 / 35 / 30                 | 80 / 80 / 40 / 35                        | 90 / 90 / 50 / 40 |
| Compressor                                    | Compressor Type                                           |               | Inverter                                    |                                   |                                              |                                   |                                          |                   |
|                                               | Operation Range                                           | %             | 10 ~ 100                                    | 8 ~ 100                           | 7 ~ 100                                      | 6 ~ 100                           | 5 ~ 100                                  |                   |
| Fan                                           | Fan Type                                                  |               | Propeller Fan x1                            |                                   |                                              | Propeller Fan x2                  |                                          |                   |
|                                               | Airflow Rate                                              | cfm [m³/min]  | 6707 [190]                                  | 8437 [239]                        | 9037 [256]                                   |                                   | 11614 [329]                              | 12284 [348]       |
|                                               | External Static Pressure <sup>6</sup>                     | in. WG [Pa]   | 0 ~ 0.32 [0 ~ 80]                           |                                   |                                              |                                   |                                          |                   |
| Unit                                          | Dimensions (H x W x D)                                    | in. [mm]      | 66-1/4 x 38-3/8 x 30-1/2 [1683 x 975 x 774] |                                   | 66-1/4 x 48-5/8 x 30-1/2 [1683 x 1235 x 774] |                                   | 66-1/4 x 64 x 30-1/2 [1683 x 1625 x 774] |                   |
|                                               | Weight (208,230V/460V/575V)                               | lb. [kg]      | 516 / 523 / 523 [234 / 237 / 237]           | 591 / 604 / 604 [268 / 274 / 274] | 721 / 725 / 725 [327 / 329 / 329]            | 723 / 728 / 728 [328 / 330 / 330] | 849 / 849 / 849 [385 / 385 / 385]        |                   |

### NOTES:

1 Rating Conditions:

#### Cooling

Indoor Air Inlet Temperature: 80.6°F (26.7°C)DB  
67°F (19.4°C)WB  
Outdoor Air Inlet Temperature: 95°F (35.0°C)DB

Piping Length: 24.6ft. (7.5m)  
Piping Lift: 0ft. (0m)

#### Heating

Indoor Air Inlet Temperature: 70°F (21.1°C)DB  
47°F (8.3°C)DB  
Outdoor Air Inlet Temperature: 43°F (6.1°C)WB

2 Efficiency ratings are based on the AHRI 1230 test standard.

3 Extended cooling operating temperature range down to 14 °F DB [-10 °C DB] with snow protection hood, and down to -10 °F DB [-23 °C DB] with low ambient kit.

However, upper limit temperature for cooling operation is restricted up to 109 °F DB [43 °C DB].

4 There are some exceptions and notes for each operation range. For details, refer to Engineering Manual.

5 For details, refer to Engineering Manual.

6 External static pressure can be changed by DSW setting.

7 Measurement Point: 3.3ft. [1m] from the air outlet side, 4.9ft. [1.5m] from floor level.

The operation sound is measured in an anechoic chamber. However, the actual operation sound may appear louder or with an echo because °F surrounding environmental noise. Be sure to check environmental conditions before installation.

# HEAT PUMP OUTDOOR UNITS

## 208/230V | 460V | 575V | 18-22 Ton Systems

| 18-22 Ton Systems                           | Type                                                                        |               | Double Module Systems                                     |                                                           |                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------|---------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
|                                             | Tonnage                                                                     |               | 18 Ton                                                    | 20 Ton                                                    | 22 Ton                                                    |
| Model                                       | 208/230V, 3PH, 60Hz                                                         |               | YVAHP216B32S                                              | YVAHP240B32S                                              | YVAHP264B32S                                              |
|                                             | 460V, 3PH, 60Hz                                                             |               | YVAHP216B42S                                              | YVAHP240B42S                                              | YVAHP264B42S                                              |
|                                             | 575V, 3PH, 60Hz                                                             |               | YVAHP216B52S                                              | YVAHP240B52S                                              | YVAHP264B52S                                              |
| Unit Combination                            | 208/230V, 3PH, 60Hz                                                         | Unit A        | YVAHP144B32S                                              | YVAHP120B32S                                              | YVAHP144B32S                                              |
|                                             |                                                                             | Unit B        | YVAHP072B32S                                              | YVAHP120B32S                                              | YVAHP120B32S                                              |
|                                             | 460V, 3PH, 60Hz                                                             | Unit A        | YVAHP144B42S                                              | YVAHP120B42S                                              | YVAHP144B42S                                              |
|                                             |                                                                             | Unit B        | YVAHP072B42S                                              | YVAHP120B42S                                              | YVAHP120B42S                                              |
|                                             | 575V, 3PH, 60Hz                                                             | Unit A        | YVAHP144B52S                                              | YVAHP120B52S                                              | YVAHP144B52S                                              |
|                                             |                                                                             | Unit B        | YVAHP072B52S                                              | YVAHP120B52S                                              | YVAHP120B52S                                              |
| Nominal Capacity                            | Cooling                                                                     | Btu/h         | 216,000                                                   | 240,000                                                   | 264,000                                                   |
|                                             | Heating                                                                     | Btu/h         | 243,000                                                   | 270,000                                                   | 297,000                                                   |
| Performance 2<br>(Non-duct / Duct)          | Rated Cooling Capacity <sup>1</sup>                                         | Btu/h         | 206,000                                                   | 228,000                                                   | 252,000                                                   |
|                                             | EER                                                                         | Btu/Wh        | 10.9 / 11.2                                               | 11.1 / 10.6                                               | 10.0 / 10.5                                               |
|                                             | IEER                                                                        | Btu/Wh        | 20.9 / 20.7                                               | 20.8 / 21.0                                               | 21.1 / 20.8                                               |
|                                             | Rated Heating Capacity <sup>1</sup>                                         | Btu/h         | 232,000                                                   | 258,000                                                   | 282,000                                                   |
|                                             | COP                                                                         | W/W           | 3.82 / 3.51                                               | 3.67 / 3.51                                               | 3.70 / 3.56                                               |
|                                             | Sound Pressure <sup>7</sup>                                                 | dB(A)         | 66                                                        |                                                           | 67                                                        |
| Operating <sup>4</sup><br>Temperature Range | Cooling <sup>3</sup>                                                        | °F DB [°C DB] | 23 ~ 122 [-5 ~ 50]                                        |                                                           |                                                           |
|                                             | Heating                                                                     | °F WB [°C WB] | -13 ~ 59 [-25 ~ 15]                                       |                                                           |                                                           |
| Refrigerant                                 | Type                                                                        |               | R410A                                                     |                                                           |                                                           |
|                                             | Factory Charge Amount                                                       | lb. [kg]      | 23.6+15.9 [10.7+7.2]                                      | 21.8+21.8 [9.9+9.9]                                       | 23.6+21.8 [10.7+9.9]                                      |
| Refrigerant Piping                          | Liquid Pipe                                                                 | in. [mm]      | 3/4 [19.05]                                               | 3/4 [19.05]                                               | 3/4 [19.05]                                               |
|                                             | Gas Pipe                                                                    | in. [mm]      | 1-1/8 [28.58]                                             | 1-3/8 [34.93]                                             | 1-3/8 [34.93]                                             |
| Connection Ratio                            | Connection Ratio Range <sup>5</sup>                                         | %             | 60 - 130(150)                                             |                                                           | 55 - 130(150)                                             |
|                                             | Number of Indoor Units (Recommended / Maximum)                              | Qty.          | 18 / 46                                                   | 18 / 52                                                   | 20 / 56                                                   |
| Electrical                                  | Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)           | A             | 58+29 / 52+26 / 30+15 / 24+12                             | 46+46 / 42+42 / 24+24 / 19+19                             | 58+46 / 52+42 / 30+24 / 24+19                             |
|                                             | Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V) | A             | 70+40 / 70+40 / 35+20 / 30+15                             | 60+60 / 60+60 / 30+30 / 25+25                             | 70+60 / 70+60 / 35+30 / 30+25                             |
| Compressor                                  | Compressor Type                                                             |               | Inverter                                                  |                                                           |                                                           |
|                                             | Operation Range                                                             | %             | 4 ~ 100                                                   |                                                           | 3 ~ 100                                                   |
| Fan                                         | Fan Type                                                                    |               | Propeller Fan x3                                          |                                                           | Propeller Fan x4                                          |
|                                             | Airflow Rate                                                                | cfm [m3/min]  | 9037+6707 [256+190]                                       |                                                           | 9037+9037 [256+256]                                       |
|                                             | External Static Pressure <sup>6</sup>                                       | in. WG [Pa]   | 0 ~ 0.32 [0 ~ 80]                                         |                                                           |                                                           |
| Unit                                        | Dimensions (H x W x D)                                                      | in. [mm]      | 66-1/4 x 87-13/16 x 30-1/2 [1683 x 2230 x 774]            |                                                           | 66-1/4 x 98-1/16 x 30-1/2 [1683 x 2490 x 774]             |
|                                             | Weight (Unit A + Unit B) (208,230V/460V/575V)                               | lb. [kg]      | 723+516 / 728+523 / 728+523 [328+234 / 330+237 / 330+237] | 721+721 / 725+725 / 725+725 [327+327 / 329+329 / 329+329] | 723+721 / 728+725 / 728+725 [328+327 / 330+329 / 330+329] |

### NOTES:

1 Rating Conditions:

#### Cooling

Indoor Air Inlet Temperature: 80.6°F (26.7°C)DB  
67°F (19.4°C)WB  
Outdoor Air Inlet Temperature: 95°F (35.0°C)DB

Piping Length: 24.6ft. (7.5m)  
Piping Lift: 0ft. (0m)

#### Heating

Indoor Air Inlet Temperature: 70°F (21.1°C)DB  
47°F (8.3°C)DB  
Outdoor Air Inlet Temperature: 43°F (6.1°C)WB

2 Efficiency ratings are based on the AHRI 1230 test standard.

3 Extended cooling operating temperature range down to 14 °F DB [-10 °C DB] with snow protection hood, and down to -10 °F DB [-23 °C DB] with low ambient kit.

4 However, upper limit temperature for cooling operation is restricted up to 109 °F DB [43 °C DB]. There are some exceptions and notes for each operation range. For details, refer to Engineering Manual.

5 For details, refer to Engineering Manual.

6 External static pressure can be changed by DSW setting.

7 Measurement Point: 3.3ft. [1m] from the air outlet side, 4.9ft. [1.5m] from floor level.

The operation sound is measured in an anechoic chamber. However, the actual operation sound may appear louder or with an echo because of surrounding environmental noise. Be sure to check environmental conditions before installation.

# HEAT PUMP OUTDOOR UNITS

## 208/230V | 460V | 575V | 24-26 Ton Systems

| 24-26 Ton Systems                           | Type                                                                        |               | Double Module Systems                                     |                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------|---------------|-----------------------------------------------------------|-----------------------------------------------------------|
|                                             | Tonnage                                                                     |               | 24 Ton                                                    | 26 Ton                                                    |
| Model                                       | 208/230V, 3PH, 60Hz                                                         |               | YVAHP288B32S                                              | YVAHP312B32S                                              |
|                                             | 460V, 3PH, 60Hz                                                             |               | YVAHP288B42S                                              | YVAHP312B42S                                              |
|                                             | 575V, 3PH, 60Hz                                                             |               | YVAHP288B52S                                              | YVAHP312B52S                                              |
| Unit Combination                            | 208/230V, 3PH, 60Hz                                                         | Unit A        | YVAHP144B32S                                              | YVAHP168B32S                                              |
|                                             |                                                                             | Unit B        | YVAHP144B32S                                              | YVAHP144B32S                                              |
|                                             | 460V, 3PH, 60Hz                                                             | Unit A        | YVAHP144B42S                                              | YVAHP168B42S                                              |
|                                             |                                                                             | Unit B        | YVAHP144B42S                                              | YVAHP144B42S                                              |
|                                             | 575V, 3PH, 60Hz                                                             | Unit A        | YVAHP144B52S                                              | YVAHP168B52S                                              |
|                                             |                                                                             | Unit B        | YVAHP144B52S                                              | YVAHP144B52S                                              |
| Nominal Capacity                            | Cooling                                                                     | Btu/h         | 288,000                                                   | 312,000                                                   |
|                                             | Heating                                                                     | Btu/h         | 324,000                                                   | 351,000                                                   |
| Performance 2<br>(Non-duct / Duct)          | Rated Cooling Capacity <sup>1</sup>                                         | Btu/h         | 276,000                                                   | 298,000                                                   |
|                                             | EER                                                                         | Btu/Wh        | 9.5 / 9.9                                                 | 9.7 / 10.0                                                |
|                                             | IEER                                                                        | Btu/Wh        | 19.4 / 20.7                                               | 20.3 / 19.5                                               |
|                                             | Rated Heating Capacity <sup>1</sup>                                         | Btu/h         | 308,000                                                   | 334,000                                                   |
|                                             | COP                                                                         | W/W           | 3.42 / 3.42                                               | 3.37 / 3.31                                               |
|                                             | Sound Pressure <sup>7</sup>                                                 | dB(A)         | 68                                                        |                                                           |
| Operating <sup>4</sup><br>Temperature Range | Cooling <sup>3</sup>                                                        | oF DB [°C DB] | 23 ~ 122 [-5 ~ 50]                                        |                                                           |
|                                             | Heating                                                                     | oF WB [°C WB] | -13 ~ 59 [-25 ~ 15]                                       |                                                           |
| Refrigerant                                 | Type                                                                        |               | R410A                                                     |                                                           |
|                                             | Factory Charge Amount                                                       | lb. [kg]      | 23.6+23.6 [10.7+10.7]                                     | 24.9+23.6 [11.3+10.7]                                     |
| Refrigerant Piping                          | Liquid Pipe                                                                 | in. [mm]      | 3/4 [19.05]                                               | 3/4 [19.05]                                               |
|                                             | Gas Pipe                                                                    | in. [mm]      | 1-3/8 [34.93]                                             | 1-3/8 [34.93]                                             |
| Connection Ratio                            | Connection Ratio Range <sup>5</sup>                                         | %             | 55 - 130(150)                                             |                                                           |
|                                             | Number of Indoor Units (Recommended / Maximum)                              | Qty.          | 20 / 59                                                   | 22 / 64                                                   |
| Electrical                                  | Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)           | A             | 58+58 / 52+52 / 30+30 / 24+24                             | 65+58 / 59+52 / 34+30 / 27+24                             |
|                                             | Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V) | A             | 70+70 / 70+70 / 35+35 / 30+30                             | 80+70 / 80+70 / 40+35 / 35+30                             |
| Compressor                                  | Compressor Type                                                             |               | Inverter                                                  |                                                           |
|                                             | Operation Range                                                             | %             | 3 ~ 100                                                   |                                                           |
| Fan                                         | Fan Type                                                                    |               | Propeller Fan x4                                          |                                                           |
|                                             | Airflow Rate                                                                | cfm [m3/min]  | 9037+9037 [256+256]                                       | 11614+9037 [329+256]                                      |
|                                             | External Static Pressure <sup>6</sup>                                       | in. WG [Pa]   | 0 ~ 0.32 [0 ~ 80]                                         |                                                           |
| Unit                                        | Dimensions (H x W x D)                                                      | in. [mm]      | 66-1/4 x 98-1/16 x 30-1/2 [1683 x 2490 x 774]             | 66-1/4 x 113-3/8 x 30-1/2 [1683 x 2880 x 774]             |
|                                             | Weight (Unit A + Unit B) (208,230V/460V/575V)                               | lb. [kg]      | 723+723 / 728+728 / 728+728 [328+328 / 330+330 / 330+330] | 849+723 / 849+728 / 849+728 [385+328 / 385+330 / 385+330] |

## NOTES:

1 Rating Conditions:

## Cooling

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67°F (19.4°C)WB  
Outdoor Air Inlet Temperature: 95°F (35.0°C)DB

Piping Length: 24.6ft. (7.5m)  
Piping Lift: 0ft. (0m)

## Heating

Indoor Air Inlet Temperature: 70°F (21.1°C)DB  
47°F (8.3°C)DB  
Outdoor Air Inlet Temperature: 43°F (6.1°C)WB

2 Efficiency ratings are based on the AHRI 1230 test standard.

3 Extended cooling operating temperature range down to 14 °F DB [-10 °C DB] with snow protection hood, and down to -10 °F DB [-23 °C DB] with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB [43 °C DB].

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5 For details, refer to Engineering Manual.

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# HEAT PUMP OUTDOOR UNITS

## 208/230V | 460V | 575V | 28-30 Ton Systems

| 28-30 Ton Systems                              | Type                                                                              |               | Double Module Systems                                        |                                                              |
|------------------------------------------------|-----------------------------------------------------------------------------------|---------------|--------------------------------------------------------------|--------------------------------------------------------------|
|                                                | Tonnage                                                                           |               | 28 Ton                                                       | 30 Ton                                                       |
| Model                                          | 208/230V, 3PH, 60Hz                                                               |               | YVAHP336B32S                                                 | YVAHP360B32S                                                 |
|                                                | 460V, 3PH, 60Hz                                                                   |               | YVAHP336B42S                                                 | YVAHP360B42S                                                 |
|                                                | 575V, 3PH, 60Hz                                                                   |               | YVAHP336B52S                                                 | YVAHP360B52S                                                 |
| Unit Combination                               | 208/230V, 3PH, 60Hz                                                               | Unit A        | YVAHP192B32S                                                 | YVAHP192B32S                                                 |
|                                                |                                                                                   | Unit B        | YVAHP144B32S                                                 | YVAHP168B32S                                                 |
|                                                | 460V, 3PH, 60Hz                                                                   | Unit A        | YVAHP192B42S                                                 | YVAHP192B42S                                                 |
|                                                |                                                                                   | Unit B        | YVAHP144B42S                                                 | YVAHP168B42S                                                 |
|                                                | 575V, 3PH, 60Hz                                                                   | Unit A        | YVAHP192B52S                                                 | YVAHP192B52S                                                 |
|                                                |                                                                                   | Unit B        | YVAHP144B52S                                                 | YVAHP168B52S                                                 |
| Nominal Capacity                               | Cooling                                                                           | Btu/h         | 336,000                                                      | 360,000                                                      |
|                                                | Heating                                                                           | Btu/h         | 378,000                                                      | 405,000                                                      |
| Performance 2<br>(Non-duct / Duct)             | Rated Cooling Capacity <sup>1</sup>                                               | Btu/h         | 320,000                                                      | 344,000                                                      |
|                                                | EER                                                                               | Btu/Wh        | 9.5 / 9.8                                                    | 9.5 / 10.2                                                   |
|                                                | IEER                                                                              | Btu/Wh        | 20.8 / 19.1                                                  | 19.8 / 19.5                                                  |
|                                                | Rated Heating Capacity <sup>1</sup>                                               | Btu/h         | 360,000                                                      | 382,000                                                      |
|                                                | COP                                                                               | W/W           | 3.27 / 3.32                                                  | 3.27 / 3.20                                                  |
|                                                | Sound Pressure <sup>7</sup>                                                       | dB(A)s        | 69                                                           | 68                                                           |
|                                                |                                                                                   |               |                                                              |                                                              |
| Operating <sup>4</sup><br>Temperature<br>Range | Cooling <sup>3</sup>                                                              | oF DB [°C DB] | 23 ~ 122 [-5 ~ 50]                                           |                                                              |
|                                                | Heating                                                                           | oF WB [°C WB] | -13 ~ 59 [-25 ~ 15]                                          |                                                              |
| Refrigerant                                    | Type                                                                              |               | R410A                                                        |                                                              |
|                                                | Factory Charge Amount                                                             | lb. [kg]      | 25.6+23.6 [11.6+10.7]                                        | 25.6+24.9 [11.6+11.3]                                        |
| Refrigerant<br>Piping                          | Liquid Pipe                                                                       | in. [mm]      | 3/4 [19.05]                                                  | 3/4 [19.05]                                                  |
|                                                | Gas Pipe                                                                          | in. [mm]      | 1-3/8 [34.93]                                                | 1-3/8 [34.93]                                                |
| Connection<br>Ratio                            | Connection Ratio Range <sup>5</sup>                                               | %             | 55 ~ 130(150)                                                |                                                              |
|                                                | Number of Indoor Units<br>(Recommended / Maximum)                                 | Qty.          | 24 / 64                                                      | 28 / 64                                                      |
| Electrical                                     | Minimum Circuit Amps, MCA<br>(Unit A + Unit B)<br>(208V/230V/460V/575V)           | A             | 76+58 / 68+52 / 39+30 / 32+24                                | 76+65 / 68+59 / 39+34 / 32+27                                |
|                                                | Maximum Overcurrent Protection, MOP<br>(Unit A + Unit B)<br>(208V/230V/460V/575V) | A             | 90+70 / 90+70 / 50+35 / 40+30                                | 90+80 / 90+80 / 50+40 / 40+35                                |
| Compressor                                     | Compressor Type                                                                   |               | Inverter                                                     |                                                              |
|                                                | Operation Range                                                                   | %             | 3 ~ 100                                                      |                                                              |
| Fan                                            | Fan Type                                                                          |               | Propeller Fan x4                                             |                                                              |
|                                                | Airflow Rate                                                                      | cfm [m3/min]  | 12284+9037 [348+256]                                         | 12284+11614 [348+329]                                        |
|                                                | External Static Pressure <sup>6</sup>                                             | in. WG [Pa]   | 0 ~ 0.32 [0 ~ 80]                                            |                                                              |
| Unit                                           | Dimensions (H x W x D)                                                            | in. [mm]      | 66-1/4 x 113-3/8 x 30-1/2<br>[1683 x 2880 x 774]             | 66-1/4 x 128-3/4 x 30-1/2<br>[1683 x 3270 x 774]             |
|                                                | Weight<br>(Unit A + Unit B)<br>(208,230V/460V/575V)                               | lb. [kg]      | 849+723 / 849+728 / 849+728<br>[385+328 / 385+330 / 385+330] | 849+849 / 849+849 / 849+849<br>[385+385 / 385+385 / 385+385] |

### NOTES:

1 Rating Conditions:

#### Cooling

Indoor Air Inlet Temperature: 80.6°F (26.7°C)DB  
67°F (19.4°C)WB  
Outdoor Air Inlet Temperature: 95°F (35.0°C)DB

Piping Length: 24.6ft. (7.5m)  
Piping Lift: 0ft. (0m)

#### Heating

Indoor Air Inlet Temperature: 70°F (21.1°C)DB  
47°F (8.3°C)DB  
Outdoor Air Inlet Temperature: 43°F (6.1°C)WB

2 Efficiency ratings are based on the AHRI 1230 test standard.

3 Extended cooling operating temperature range down to 14 °F DB [-10 °C DB] with snow protection hood, and down to -10 °F DB [-23 °C DB] with low ambient kit.

However, upper limit temperature for cooling operation is restricted up to 109 °F DB [43 °C DB].

4 There are some exceptions and notes for each operation range. For details, refer to Engineering Manual.

5 For details, refer to Engineering Manual.

6 External static pressure can be changed by DSW setting.

7 Measurement Point: 3.3ft. [1m] from the air outlet side, 4.9ft. [1.5m] from floor level.

The operation sound is measured in an anechoic chamber. However, the actual operation sound may appear louder or with an echo because of surrounding environmental noise. Be sure to check environmental conditions before installation.

# HEAT PUMP OUTDOOR UNITS

## 208/230V | 460V | 575V | 32-36 Ton Systems

| 32-36 Ton Systems | Type                |        | Triple Module Systems |              |              |
|-------------------|---------------------|--------|-----------------------|--------------|--------------|
|                   | Tonnage             |        | 32 Ton                | 34 Ton       | 36 Ton       |
| Model             | 208/230V, 3PH, 60Hz |        | YVAHP384B32S          | YVAHP408B32S | YVAHP432B32S |
|                   | 460V, 3PH, 60Hz     |        | YVAHP384B42S          | YVAHP408B42S | YVAHP432B42S |
|                   | 575V, 3PH, 60Hz     |        | YVAHP384B52S          | YVAHP408B52S | YVAHP432B52S |
| Unit Combination  | 208/230V, 3PH, 60Hz | Unit A | YVAHP144B32S          | YVAHP144B32S | YVAHP144B32S |
|                   |                     | Unit B | YVAHP120B32S          | YVAHP144B32S | YVAHP144B32S |
|                   |                     | Unit C | YVAHP120B32S          | YVAHP120B32S | YVAHP144B32S |
|                   | 460V, 3PH, 60Hz     | Unit A | YVAHP144B42S          | YVAHP144B42S | YVAHP144B42S |
|                   |                     | Unit B | YVAHP120B42S          | YVAHP144B42S | YVAHP144B42S |
|                   |                     | Unit C | YVAHP120B42S          | YVAHP120B42S | YVAHP144B42S |
|                   | 575V, 3PH, 60Hz     | Unit A | YVAHP144B52S          | YVAHP144B52S | YVAHP144B52S |
|                   |                     | Unit B | YVAHP120B52S          | YVAHP144B52S | YVAHP144B52S |
|                   |                     | Unit C | YVAHP120B52S          | YVAHP120B52S | YVAHP144B52S |

|                                               |                                                                                      |               |                                                                                      |                                                                                      |                                                                                      |
|-----------------------------------------------|--------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Nominal Capacity                              | Cooling                                                                              | Btu/h         | 384,000                                                                              | 408,000                                                                              | 432,000                                                                              |
|                                               | Heating                                                                              | Btu/h         | 432,000                                                                              | 459,000                                                                              | 486,000                                                                              |
| Performance <sup>2</sup><br>(Non-duct / Duct) | Rated Cooling Capacity <sup>1</sup>                                                  | Btu/h         | 366,000                                                                              | 380,000                                                                              | 400,000                                                                              |
|                                               | EER                                                                                  | Btu/Wh        | 9.6 / 9.5                                                                            | 9.5 / 9.5                                                                            | 9.5 / 9.6                                                                            |
|                                               | IEER                                                                                 | Btu/Wh        | 19.6 / 18.6                                                                          | 19.3 / 19.2                                                                          | 19.5 / 19.0                                                                          |
|                                               | Rated Heating Capacity <sup>1</sup>                                                  | Btu/h         | 410,000                                                                              | 435,000                                                                              | 460,000                                                                              |
|                                               | COP                                                                                  | W/W           | 3.37 / 3.33                                                                          | 3.34 / 3.37                                                                          | 3.21 / 3.35                                                                          |
|                                               | Sound Pressure <sup>7</sup>                                                          | dB(A)         | 69                                                                                   |                                                                                      | 70                                                                                   |
| Operating <sup>4</sup><br>Temperature Range   | Cooling <sup>3</sup>                                                                 | oF DB [°C DB] | 23 ~ 122 [-5 ~ 50]                                                                   |                                                                                      |                                                                                      |
|                                               | Heating                                                                              | oF WB [°C WB] | -13 ~ 59 [-25 ~ 15]                                                                  |                                                                                      |                                                                                      |
| Refrigerant                                   | Type                                                                                 |               | R410A                                                                                |                                                                                      |                                                                                      |
|                                               | Factory Charge Amount                                                                | lb. [kg]      | 23.6+21.8+21.8<br>[10.7+9.9+9.9]                                                     | 23.6+23.6+21.8<br>[10.7+10.7+9.9]                                                    | 23.6+23.6+23.6<br>[10.7+10.7+10.7]                                                   |
| Refrigerant Piping                            | Liquid Pipe                                                                          | in. [mm]      | 3/4 [19.05]                                                                          | 3/4 [19.05]                                                                          | 3/4 [19.05]                                                                          |
|                                               | Gas Pipe                                                                             | in. [mm]      | 1-5/8 [41.28]                                                                        | 1-5/8 [41.28]                                                                        | 1-5/8 [41.28]                                                                        |
| Connection Ratio                              | Connection Ratio Range <sup>5</sup>                                                  | %             | 55 - 130(150)                                                                        |                                                                                      |                                                                                      |
|                                               | Number of Indoor Units (Recommended / Maximum)                                       | Qty.          | 30 / 64                                                                              |                                                                                      |                                                                                      |
| Electrical                                    | Minimum Circuit Amps, MCA (Unit A + Unit B + Unit C) (208V/230V/460V/575V)           | A             | 58+46+46 / 52+42+42 / 30+24+24 / 24+19+19                                            | 58+58+46 / 52+52+42 / 30+30+24 / 24+24+19                                            | 58+58+58 / 52+52+52 / 30+30+30 / 24+24+24                                            |
|                                               | Maximum Overcurrent Protection, MOP (Unit A + Unit B + Unit C) (208V/230V/460V/575V) | A             | 70+60+60 / 70+60+60 / 35+30+30 / 30+25+25                                            | 70+70+60 / 70+70+60 / 35+35+30 / 30+30+25                                            | 70+70+70 / 70+70+70 / 35+35+35 / 30+30+30                                            |
| Compressor                                    | Compressor Type                                                                      |               | Inverter                                                                             |                                                                                      |                                                                                      |
|                                               | Operation Range                                                                      | %             | 2 ~ 100                                                                              |                                                                                      |                                                                                      |
| Fan                                           | Fan Type                                                                             |               | Propeller Fan x6                                                                     |                                                                                      |                                                                                      |
|                                               | Airflow Rate                                                                         | cfm [m3/min]  | 9037+9037+9037 [256+256+256]                                                         |                                                                                      |                                                                                      |
|                                               | External Static Pressure <sup>6</sup>                                                | in. WG [Pa]   | 0 ~ 0.32 [0 ~ 80]                                                                    |                                                                                      |                                                                                      |
| Unit                                          | Dimensions (H x W x D)                                                               | in. [mm]      | 66-1/4 x 147-7/16 x 30-1/2<br>[1683 x 3745 x 774]                                    |                                                                                      |                                                                                      |
|                                               | Weight (Unit A + Unit B + Unit C) (208,230V/460V/575V)                               | lb. [kg]      | 723+721+721 / 728+725+725 / 728+725+725<br>[328+327+327 / 330+329+329 / 330+329+329] | 723+723+721 / 728+728+725 / 728+728+725<br>[328+328+327 / 330+330+329 / 330+330+329] | 723+723+723 / 728+728+728 / 728+728+728<br>[328+328+328 / 330+330+330 / 330+330+330] |

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