

SUBMITTAL DATA SHEET

10 RT (H,Y)VAHR120B41S (Consists of one (H,Y)VAHR120B41S module.)

| | | | | | |
|-------------------|------|------|---------------|---------------|------------|
| Job Name: | | | Location: | | |
| Purchaser: | | | Order No.: | | |
| Engineer: | | | | | |
| Submitted To: | For: | Ref: | Approval: | Construction: | |
| Submitted By: | | | Date: | | |
| Unit Designation: | | | Schedule No.: | | Model No.: |

FEATURES:

- Three-pipe system for ductless and ducted applications
- Inverter-driven scroll compressor
- Air source simultaneous cooling and heating with Change-Over Box
- Long refrigerant piping lengths – up to 3,280 feet total pipe run

ACCESSORIES:

- Change-Over Box (required for a heat recovery system): for details see Change-Over Box Submittals
- Piping Kit: for details see Pipe Accessories Submittal
- Hail/Snow Protection Hood: for details see Snow/Hail Guards Kit Submittal

NOTES:

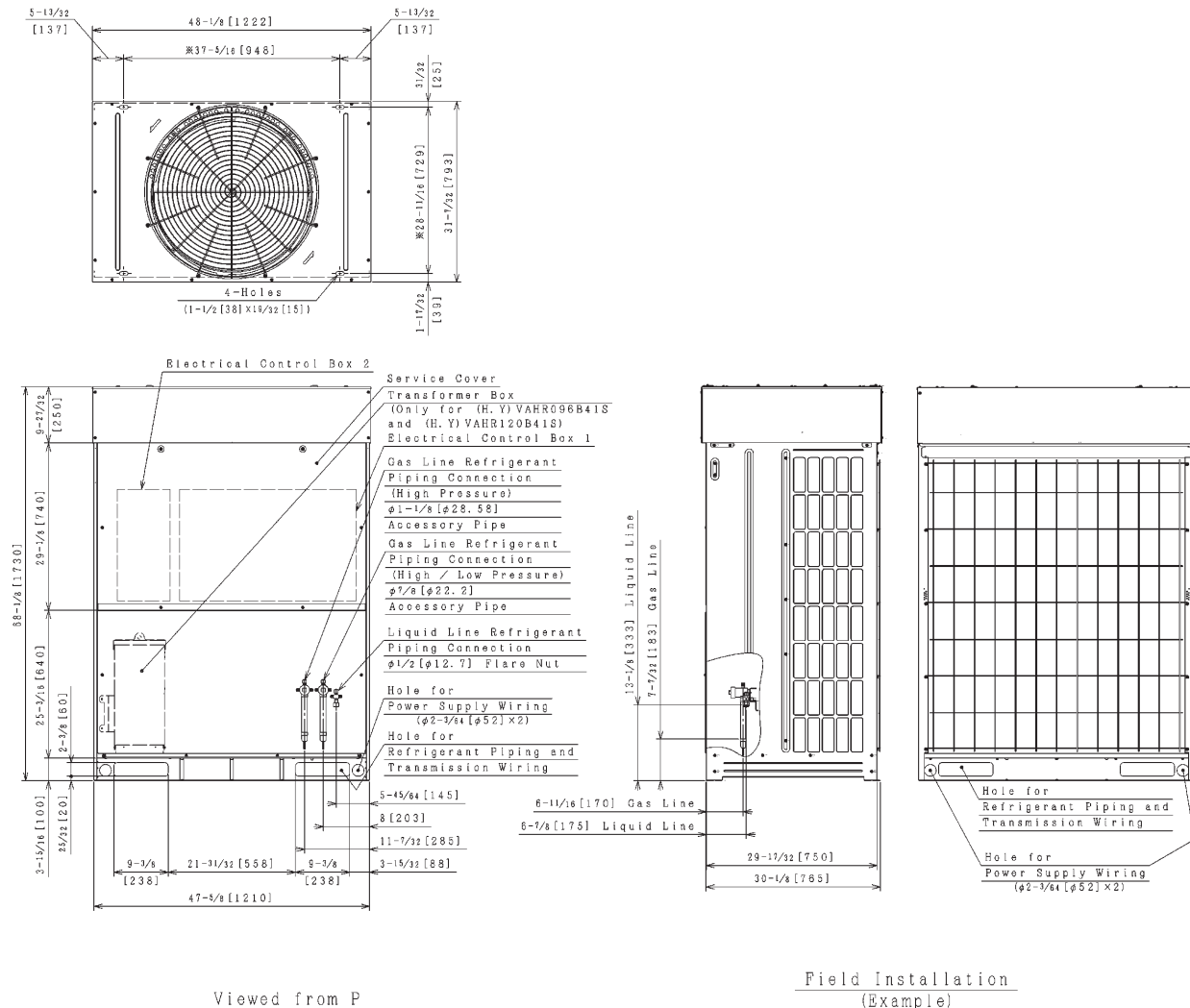
- Rating Conditions are shown as below with piping length 24 feet 7-3/16 inch, piping height 0 feet.
Cooling
Indoor Air Inlet Temperature: 80 DB, 67F WB
Outdoor Air Inlet Temperature: 95F DB
Heating
Indoor Air Inlet Temperature: 70 F DB
Outdoor Air Inlet Temperature: 47F DB, 43F WB
- Rating Conditions are based on the AHRI 1230 test standard.
- For more details, please refer to Engineering manual "Operation range" section.
- For more details, please refer to Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.24 in.W.G. (60Pa).

| | | | | | |
|-----------------------------------------|-------------------------------------------|--------------------|-----------------------|------------------------------------------|----------------|
| Category | | Ton | | 10RT | |
| Model(combination) | | | | (H,Y)VAHR120B41S | |
| Model(individual) | | Unit A | | - | |
| | | Unit B | | - | |
| | | Unit C | | - | |
| | | Unit D | | - | |
| Power Supply | | | | 460V/ 3PH 60Hz | |
| Capacity (Nominal) ¹ | Cooling | Capacity (Nominal) | Btu/h | (kW) | 120,000 (35.2) |
| | | Power input | kW | | 10.57 |
| | | Current input | A | | 15.8 |
| | Heating | Capacity (Nominal) | Btu/h | (kW) | 135,000 (39.6) |
| | | Power input | kW | | 9.73 |
| | | Current input | A | | 14.4 |
| Efficiency Ratings ² | Cooling | Capacity (Rated) | Btu/h | (kW) | 114,000 (33.4) |
| | | EER | Btu/Wh | (W/W) | 11.20 (3.29) |
| | | IEER | Btu/Wh | (Wh/Wh) | 19.80 (5.81) |
| | Heating High | Capacity (Rated) | Btu/h | (kW) | 129,000 (37.8) |
| | | COP | W/W | | 3.66 |
| | | Capacity | Btu/h | (kW) | 89,000 (26.1) |
| | Heating Low | COP | W/W | | 2.25 |
| | Heat Recovery | SCHE | Btu/Wh | | 26.00 |
| Cooling Operating Range | Indoor | °F WB (°C WB) | | 59(15)~73(23) | |
| | Outdoor ³ | °F DB (°C DB) | | 14(-10)~118(48) | |
| Heating Operating Range | Indoor | °F DB (°C DB) | | 59(15)~80(27) | |
| | Outdoor ⁴ | °F WB (°C WB) | | -4(-20)~59(15) | |
| Cabinet Color (Munsell Code) | | | | 2.5Y 8/2 | |
| Outer Dimensions (H x W x D) | | in | | 68-1/8 x 48-1/8 x 31-7/32 | |
| Package Dimensions (H x W x D) | | in | | 74-1/4 x 50-7/8 x 34-1/32 | |
| Weight | Net | lbs | (kg) | 798 | (362) |
| | Gross | lbs | (kg) | 856 | (388) |
| Connection Ratio | Total Indoor Unit Capacity | % | | 130 - 60 | |
| | Max. (Recommendation) indoor units/system | - | | 25(16) | |
| Heat Exchanger | Type | - | | Multi-Pass Cross-Finned Tube | |
| | Material | - | | Cu-Al (Anti-corrosion) | |
| Compressor | Type | Inverter | | DA65PHD×1 | |
| | | Fixed Speed | | DA65PHC×1 | |
| | Motor Output (Pole) | kW (Pole) | | 6.0(6)×4.4(2) | |
| | Start Method | - | | inverter | |
| | Operation Range | % | | 15~100 | |
| | Refrigeration Oil Type | - | | FVC68D | |
| Crank Case Heater | | W×Q'ty | | 40.8 (230V) ×4 | |
| Fan | Type | - | | Propeller Fan | |
| | Motor Output (Pole) | kW (Pole) | | 0.91(8) | |
| | Quantity | Q'ty | | 1 | |
| | Air Flow Rate | cfm | (m ³ /min) | 7413 | (210) |
| | External static pressure ⁵ | in.WG | (Pa) | 0 (0) | |
| | Drive | - | | Direct-drive | |
| Electrical | Min Circuit Amps | A | | 25 | |
| | Recommended Fuse/Breaker Size | A | | 30 | |
| | Maximum Fuse Size | A | | 30 | |
| Sound Pressure Level | Cooling (Night-Shift) | dB(A) | | 64 | (57) |
| | Heating | dB(A) | | 64 | |
| Protection devices | Cycle | - | | High pressure switch at 601psi (4.15MPa) | |
| | Inverter | - | | Over-current protection | |
| | Compressor | - | | Over-heat protection | |
| | PCB | - | | Over-current protection | |
| Refrigerant | Type | - | | R410A | |
| | Charge amount | lbs | (kg) | 20.9 | (9.5) |
| Refrigeration Oil | Charge amount | gal/Unit | (ø/Unit) | 2.1 | (7.9) |
| | Defrost Method | - | | Reversed Refrigerant cycle | |
| Main Refrigerant Piping (Heat Recovery) | Low Pressure Gas Line | in | (mm) | 1-1/8 | (28.58) |
| | High/Low Pressure Gas Line | in | (mm) | 7/8 | (22.2) |
| | Liquid Line | in | (mm) | 1/2 | (12.7) |

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System Dimensions

Heat Recovery Type Model:
(H,Y)VAHR120B41S



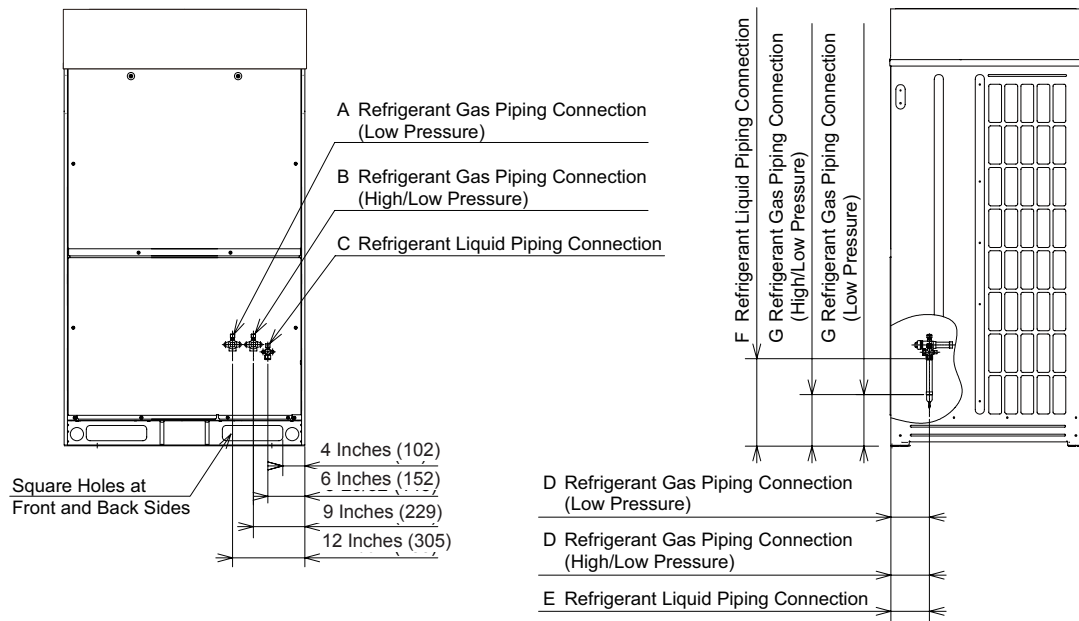
NOTES:

1. Drain water is discharged from the unit during the operation.
 - ① Choose a place where well drainage is available. Provide a groove for drain.
 - ② Do not provide an upward slope from the unit to avoid reverse flow of the drain. Provide a second drainpan under the outdoor unit. to collect drain water securely.
 - ③ Do not use the drain boss (optional) in a cold area. (Drain water in the drain pipe may be frozen and the drain pipe may crack.)
2. The dimensions marked with ※ indicates the mounting pitch dimension for anchor bolts.

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Piping Connection Dimensions

Unit: inch (mm)



| Model Type | Field Piping (*) | | | | | A | B | C | D | E | F | G |
|------------|----------------------|------------------------|------------------|------------------------|---------------|---------------|---------------|---------------|------------------|------------------|-------------------|-----------------|
| | Heat Recovery System | | Heat Pump System | | Liquid | | | | | | | |
| | Low Pressure Gas | High/ Low Pressure Gas | Low Pressure Gas | High/ Low Pressure Gas | | | | | | | | |
| 72 | 1-1/8 (28.58) | 7/8 (22.2) | - | 1-1/8 (28.58) | 1/2 (12.7) | 7/8 (22.2) | 7/8 (22.2) | 3/8 (9.52) | 5-29/32 (150) | 5-29/32 (150) | 13-3/8 (340) | 8-1/16 (205) |
| 96 | 1-1/8 (28.58) | 7/8 (22.2) | - | 1-1/8 (28.58) | 1/2 (12.7) | 1 (25.4) | 1 (25.4) | 1/2 (12.7) | 6-11/16 (170) | 6-11/16 (170) | 12-25/32 (325) | 7-7/8 (200) |
| 120 | 1-1/8 (28.58) | 7/8 (22.2) | - | 1-1/8 (28.58) | 1/2 (12.7) | 1 (25.4) | 1 (25.4) | 1/2 (12.7) | 6-11/16 (170) | 6-11/16 (170) | 12-25/32 (325) | 7-7/8 (200) |

*Using the accessory pipe (refer to Table 3.6 "Factory-Supplied Accessories"), combine the piping size.

Figure 6.2 Refrigerant Piping Connection

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