HVAC Submittals

Puyallup Medical Building

222 15th Ave SE

Puyallup, WA 98371

ASEI Job No. X13477

January 9, 2026

Revised January 15, 2026
to add existing equipment

Prepared by:

Air Systems Engineering Inc.
COMFORT SYSTEMS USA

3602 S. Pine St.
Tacoma, WA 98409
Phone (253) 572-9484

CU-1

6 - 25 Ton Unitary Split Systems Outdoor

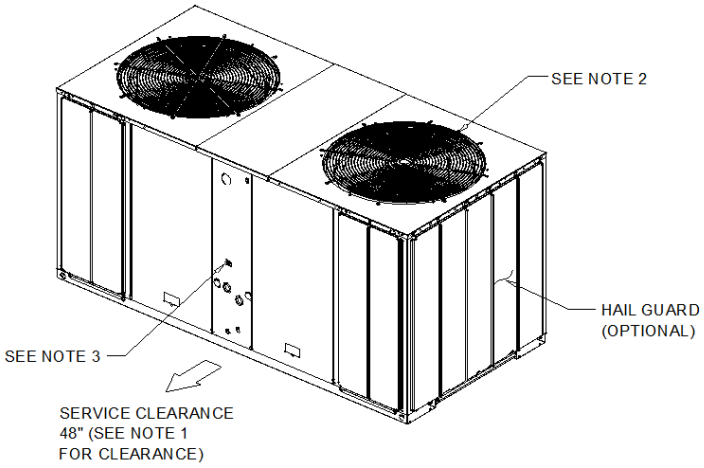
Unit Overview

Model	TWA24044DAA**BS010000000000000000000000000
Unit Tonnage	20 Tons
Controls	Symbio (Heat Pump)
Unit Voltage	460/60/3
Refrigeration Circuit / Stage	Dual Compressors / Dual Circuit
Unit Function	Heat Pump
Max. Cond. Operating Weight	902.0 lb

Electrical Information

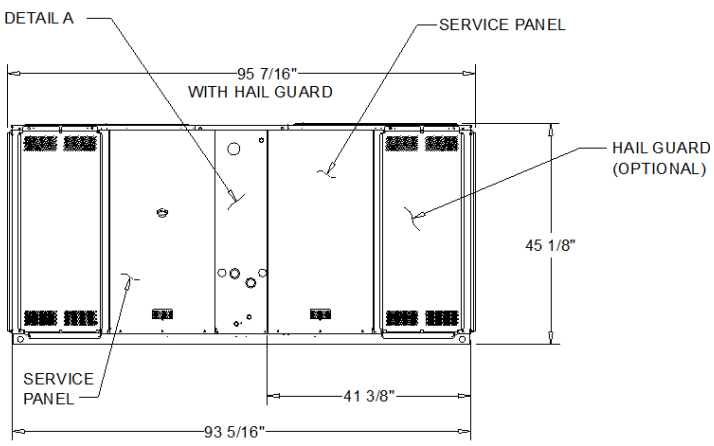
MCA	40.00 A	**Compressor 2 RLA**	16.00 A
MOP	50.00 A	**Cond. Motor 1 FLA**	2.20 A
Compressor 1 RLA	16.00 A	**Cond. Motor 2 FLA**	2.20 A

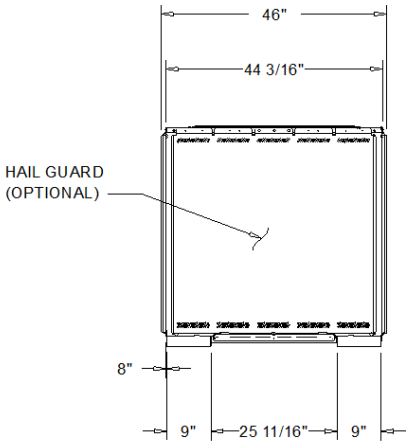
CU-1

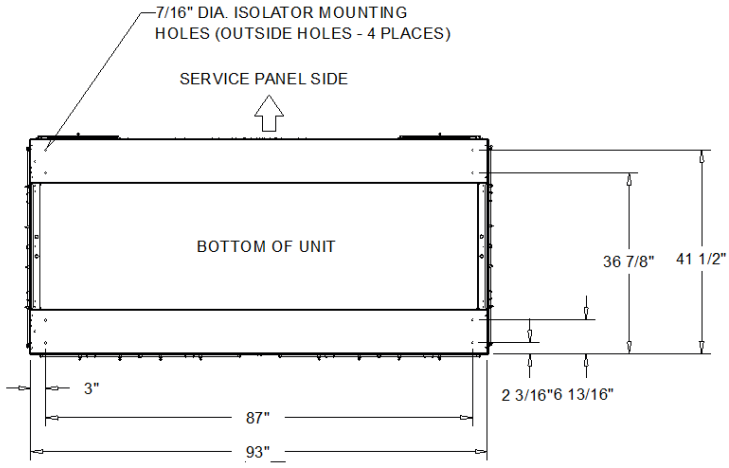


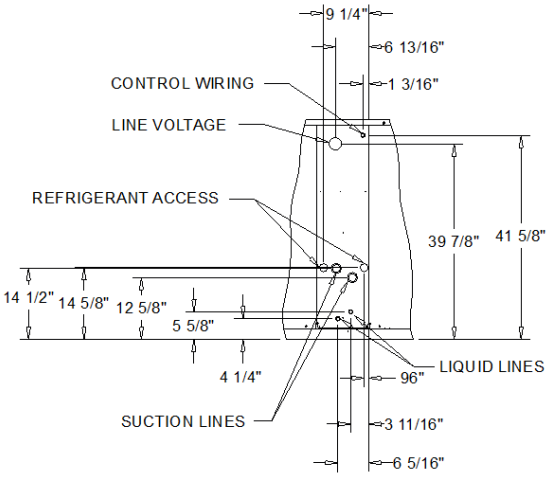
NOTES:
1. MINIMUM CLEARANCE FOR PROPER OPERATION IS 36" FROM WALLS, SHRUBBERY, PRIVACY FENCES ETC. MINIMUM CLEARANCE BETWEEN ADJACENT UNITS IS 72". RECOMMENDED SERVICE CLEARANCE 48"
2. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
3. OUTDOOR AIR TEMPERATURE SENSOR OPENING (DO NOT BLOCK OPENING).

REFRIGERANT
1. SUCTION CONNECTION (1 3/8" OD) AND LIQUID CONNECTION (5/8"OD)





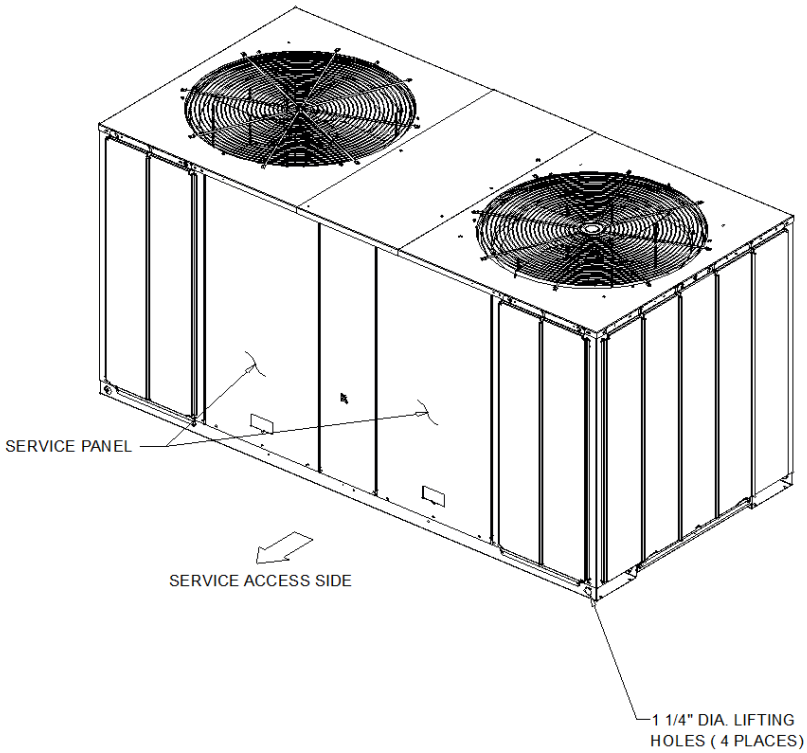


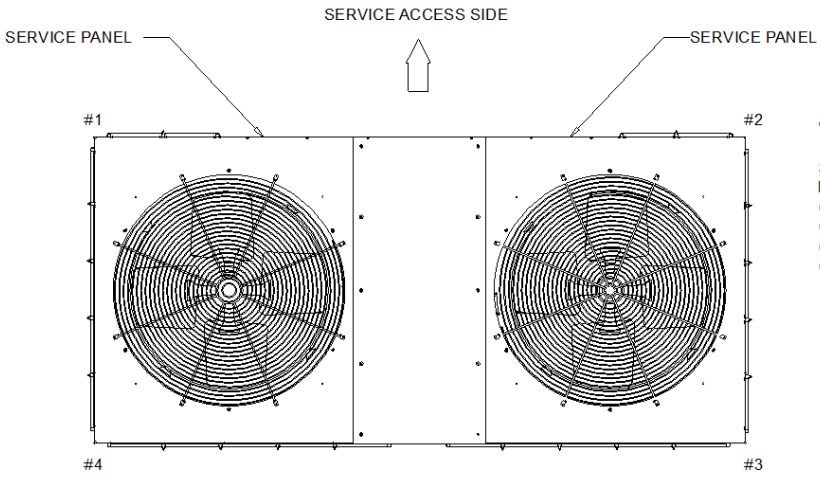


FRONT DETAIL A
DIMENSIONAL DETAIL

20 TON HEAT PUMP CONDENSER (DUAL COMPRESSOR)

DIMENSIONAL DRAWING





WEIGHTS AND CORNER WEIGHTS

Shipping:	1003.0 lb
Net	902.0 lb
Corner 1:	269.0 lb
Corner 2:	268.0 lb
Corner 3:	183.0 lb
Corner 4:	182.0 lb

WEIGHTS AND LOAD POINT LOCATION FOR CONDENSOR

WEIGHT AND RIGGING

General - *(TWA)*
- Weatherproofed steel mounting/lifting rails
- Hermetic scroll compressors
- Plate fin condenser coils
- Fans and motors
- Standard operating range 50-125°F (min. 0°F with low ambient accessory)
- Nitrogen holding charge
- Certified and rated in accordance with AHRI and DOE standards
- Certified to UL 1995
- Capacities and efficiencies for split systems are rated within the scope of the Air-Conditioning, Heating, & Refrigeration Institute (AHRI) certification program and display the AHRI Standard 340-360 (I-P) mark. This standard applies to units between 65,000 and 250,000 btu/hr.

Casing - *(TWA)*
- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Meets ASTM B117, 672 hour salt spray test
- Removable single side maintenance access panels
- Lifting handles in maintenance access panels
- Unit base provisions for forklift and/or crane lifting

Refrigeration System - Single Compressor (TWA0724*A, TWA0904*A, TWA1204*A)
- Single refrigeration circuit with integral subcooling circuit
- Single direct drive hermetic scroll compressor
- Suction gas-cooled motor w/ ± 10% voltage utilization range of unit nameplate voltage
- Reversing valve
- Crankcase heater
- Internal temperature and current sensitive motor overloads
- No compressor suction and/or discharge valves (reduced vibration/sound)
- Factory installed liquid line filter drier
- Phase loss/reverse rotation monitor
- External high pressure cutout device
- External low pressure cutout device
- Evaporator defrost control
- Loss of charge protection (discharge temperature limit)

Condenser Coil (Fin and Tube*)* - *TWA*
- 3/8" internally enhanced copper tube
- Mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 660 psig

Condenser Fan - *TWA*
- 26" or 28" propeller fan(s)
- Direct drive
- Statically and dynamically balanced

Condenser Motor(s) - *(TWA)*
- Permanently lubricated totally enclosed or open construction
- Built-in current and thermal overloads
- Ball or sleeve bearing type

Controls - (TWA)
- Centralized microprocessor
- Indoor and outdoor temperature sensors drive algorithms, making decisions for all heating, cooling, and ventilation
- Integrated anti-short cycle timer
- Integrated time delay between compressors
- Completely internally wired
- Colored and keyed connectors and colored wires
- Contactor pressure lugs or terminal block
- Unit external mounting location for disconnect device
- Single point power entry

Note:
The 2-speed or SZVAV units should not be used with any single-speed, single-compressor condensing unit. The result of this selection will cause the SZVAV AHU to act as a CONSTANT VOLUME.

Factory installed perforated steel hail guards
- Condenser coil protection from hail, vandals, etc.
- Perforated, painted galvanized steel

Phase Monitor/Reversal Protection
Phase monitor shall provide 100% protection for motors and compressors against problems caused by phase loss, phase imbalance, and phase reversal. Phase monitors are equipped with an LED that provides an ON or FAULT indicator. Quick-Access Panels

- Remove a few screws for access to the standardized internal components and wiring.

Condenser and Air Handler Pairings

Table 3. Model number descriptions

TWE Air Handler with Symbio
Digit 15 — Controls **1** = Constant Volume **C** = 2 Stage Airflow (Electromechanical Condenser Only) **D** = 2 Stage Airflow/Single Zone VAV (Symbio Condenser Only)

TWE Air Handler (pre-Symbio)
Digit 15 — Controls **0** = Constant Volume **A** = 2 Stage Airflow (Electromechanical Condenser Only) **B** = Single Zone VAV (ReliaTel Condenser Only)

Table 4. Condenser and air handler pairing instructions (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Wiring Reference	Instructions
	Type	Supply Fan Type (model # digit)		
Odyssey Electromechani-cal (Digit 15 = E)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	"Pairing C or 3," p. 10	
		2-Speed Airflow (Digit 15 = C)		
		Single Zone VAV (Digit 15 = D)	"Pairing D," p. 12	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.
Odyssey ReliaTel (Digit 15 = R)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	"Pairing 4," p. 14	
		2-Speed Airflow (Digit 15 = C)	"Pairing E," p. 16	
		Single Zone VAV (Digit 15 = D)	"Pairing F," p. 16	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.

Condenser and Air Handler Pairings

Table 4. Condenser and air handler pairing instructions (continued) (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Wiring Reference	Instructions
	Type	Supply Fan Type (model # digit)		
Odyssey Symbio (Digit 15 = S)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	"Pairing A," p. 18	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		2-Speed Airflow (Digit 15 = C)	"Pairing H," p. 20	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		Single Zone VAV (Digit 15 = D)	"Pairing B," p. 18	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
	Odyssey Electromechanical	Constant Volume (Digit 15 = 0)	"Pairing 1 or 2," p. 22	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat.
		2-Speed Airflow (Digit 15 = A)		
	Odyssey ReliaTel	Variable Speed, Single Zone VAV (Digit 15 = B)	"Pairing G (preferred)," p. 24	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
			"Pairing G (optional)," p. 27	Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. This pairing requires the replacement of the RTOM module with a Symbio Relay Board (MOD03105) and that the VFD wires 81B, 82B, 93B, 94B and 94D be replaced with wire harness kit WIR010190 (required) and WIR010185 (optional). The Air Handler will operate as a 2-speed fan.
	Generic Air Handler	Constant Volume	"Pairing Y," p. 29	
Two Symbio Condensers (2 condensers to 1 air handler)	Odyssey Electromechanical		"Pairing Z," p. 30	

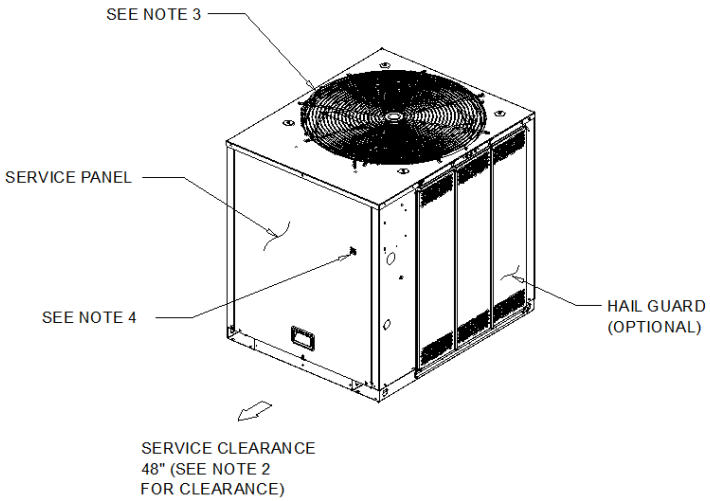
6 - 25 Ton Unitary Split Systems Outdoor

Unit Overview

Model	TWA09044DAA**BS010000000000000000000000000
Unit Tonnage	7.5 Tons
Controls	Symbio (Heat Pump)
Unit Voltage	460/60/3
Refrigeration Circuit / Stage	Dual Compressors / Dual Circuit
Unit Function	Heat Pump
Max. Cond. Operating Weight	421.0 lb

Electrical Information

MCA	15.00 A	**Compressor 2 RLA**	6.10 A
MOP	20.00 A	**Cond. Motor 1 FLA**	1.10 A
Compressor 1 RLA	6.10 A	**Cond. Motor 2 FLA**	0.00 A



NOTES:
1. ACCESS OPENING IS FOR FIELD INSTALLED BAYLOAM ACCESSORY.
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3. TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR 100" MINIMUM. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT
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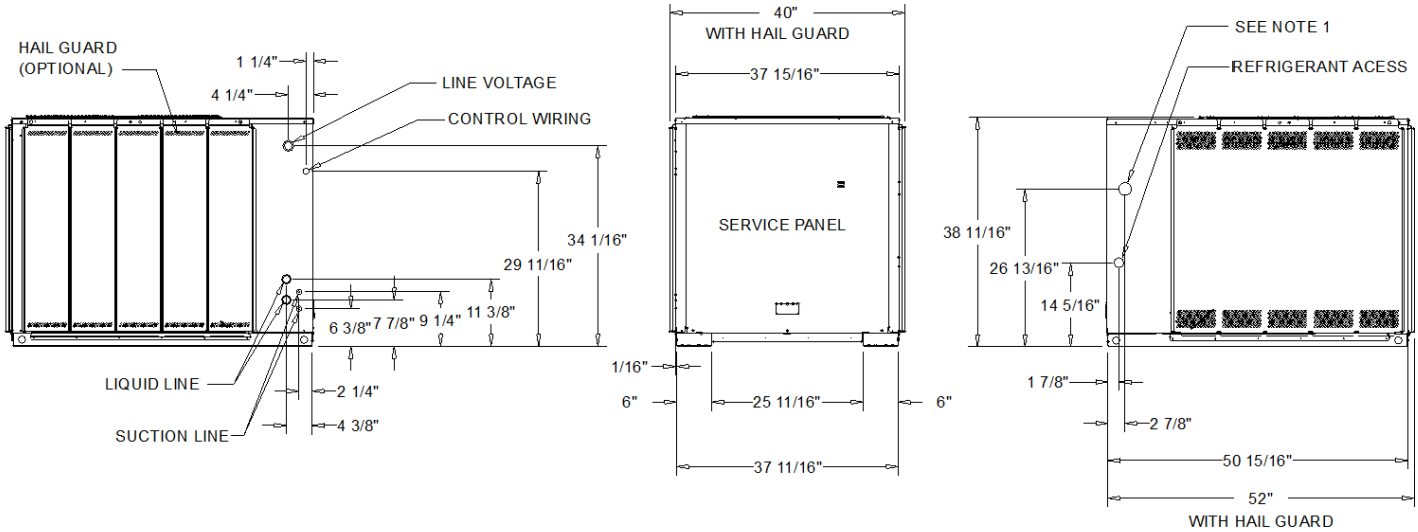
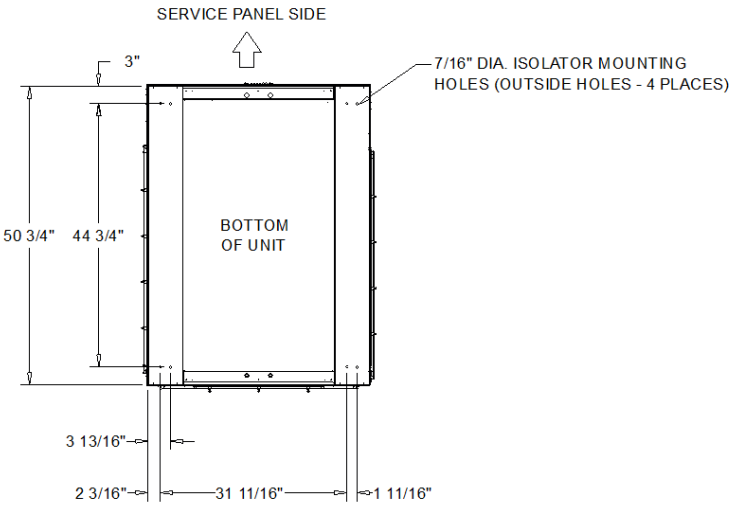
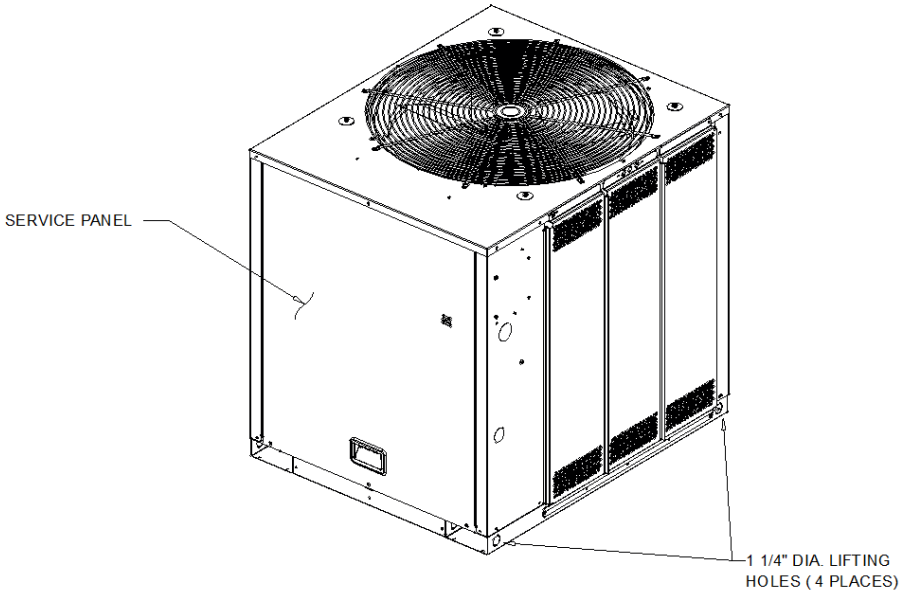
REFRIGERANT
1. SUCTION CONNECTION 1 1/8"OD) AND LIQUID CONNECTION (1/2" OD)

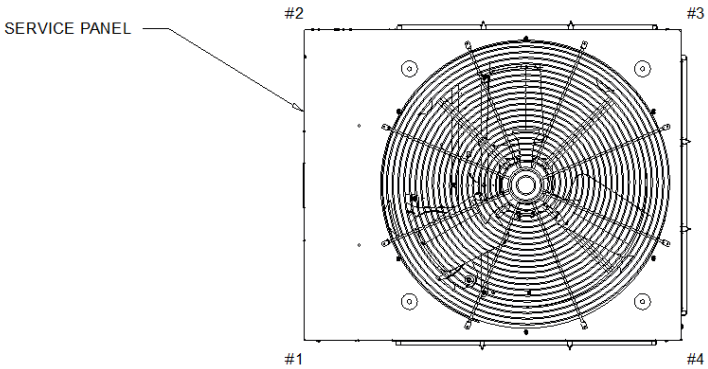




6 - 7.5 TON HEAT PUMP CONDENSER

DIMENSIONAL DRAWING





WEIGHTS AND CORNER WEIGHTS

Shipping:	466.0 lb
Net	421"
Corner 1:	152.0 lb
Corner 2:	114.0 lb
Corner 3:	89.0 lb
Corner 4:	66.0 lb

WEIGHTS AND LOAD POINT LOCATION

WEIGHT AND RIGGING

General - *(TWA)*
- Weatherproofed steel mounting/lifting rails
- Hermetic scroll compressors
- Plate fin condenser coils
- Fans and motors
- Standard operating range 50-125°F (min. 0°F with low ambient accessory)
- Nitrogen holding charge
- Certified and rated in accordance with AHRI and DOE standards
- Certified to UL 1995
- Capacities and efficiencies for split systems are rated within the scope of the Air-Conditioning, Heating, & Refrigeration Institute (AHRI) certification program and display the AHRI Standard 340-360 (I-P) mark. This standard applies to units between 65,000 and 250,000 btu/hr.

Casing - *(TWA)*
- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Meets ASTM B117, 672 hour salt spray test
- Removable single side maintenance access panels
- Lifting handles in maintenance access panels
- Unit base provisions for forklift and/or crane lifting

Condenser Coil (Fin and Tube*)* - *TWA*
- 3/8" internally enhanced copper tube
- Mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 660 psig

Condenser Fan - *TWA*
- 26" or 28" propeller fan(s)
- Direct drive
- Statically and dynamically balanced

Condenser Motor(s) - *(TWA)*
- Permanently lubricated totally enclosed or open construction
- Built-in current and thermal overloads
- Ball or sleeve bearing type

Controls - (TWA)
- Centralized microprocessor
- Indoor and outdoor temperature sensors drive algorithms, making decisions for all heating, cooling, and ventilation
- Integrated anti-short cycle timer
- Integrated time delay between compressors
- Completely internally wired
- Colored and keyed connectors and colored wires
- Contactor pressure lugs or terminal block
- Unit external mounting location for disconnect device
- Single point power entry

Note:
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6 - 25 Ton Unitary Split Systems Outdoor

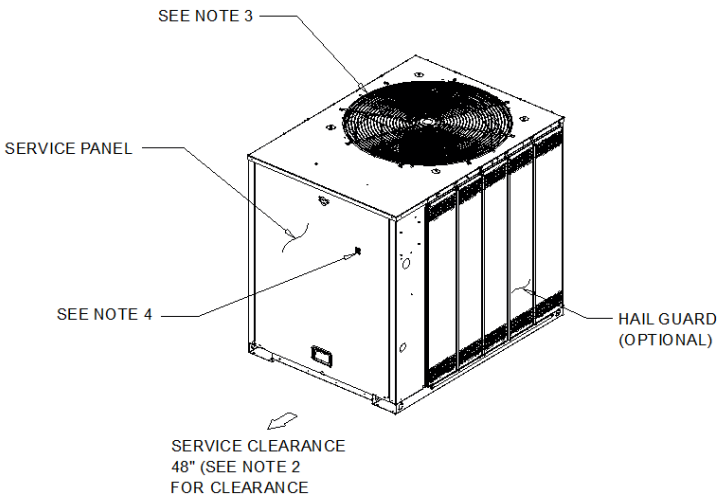
Unit Overview

Model	TWA12044DAA**BS010000000000000000000000000
Unit Tonnage	10 Tons
Controls	Symbio (Heat Pump)
Unit Voltage	460/60/3
Refrigeration Circuit / Stage	Dual Compressors / Dual Circuit
Unit Function	Heat Pump
Max. Cond. Operating Weight	433.0 lb

Electrical Information

MCA	18.00 A	**Compressor 2 RLA**	7.20 A
MOP	25.00 A	**Cond. Motor 1 FLA**	2.20 A
Compressor 1 RLA	7.20 A	**Cond. Motor 2 FLA**	0.00 A

CU-4



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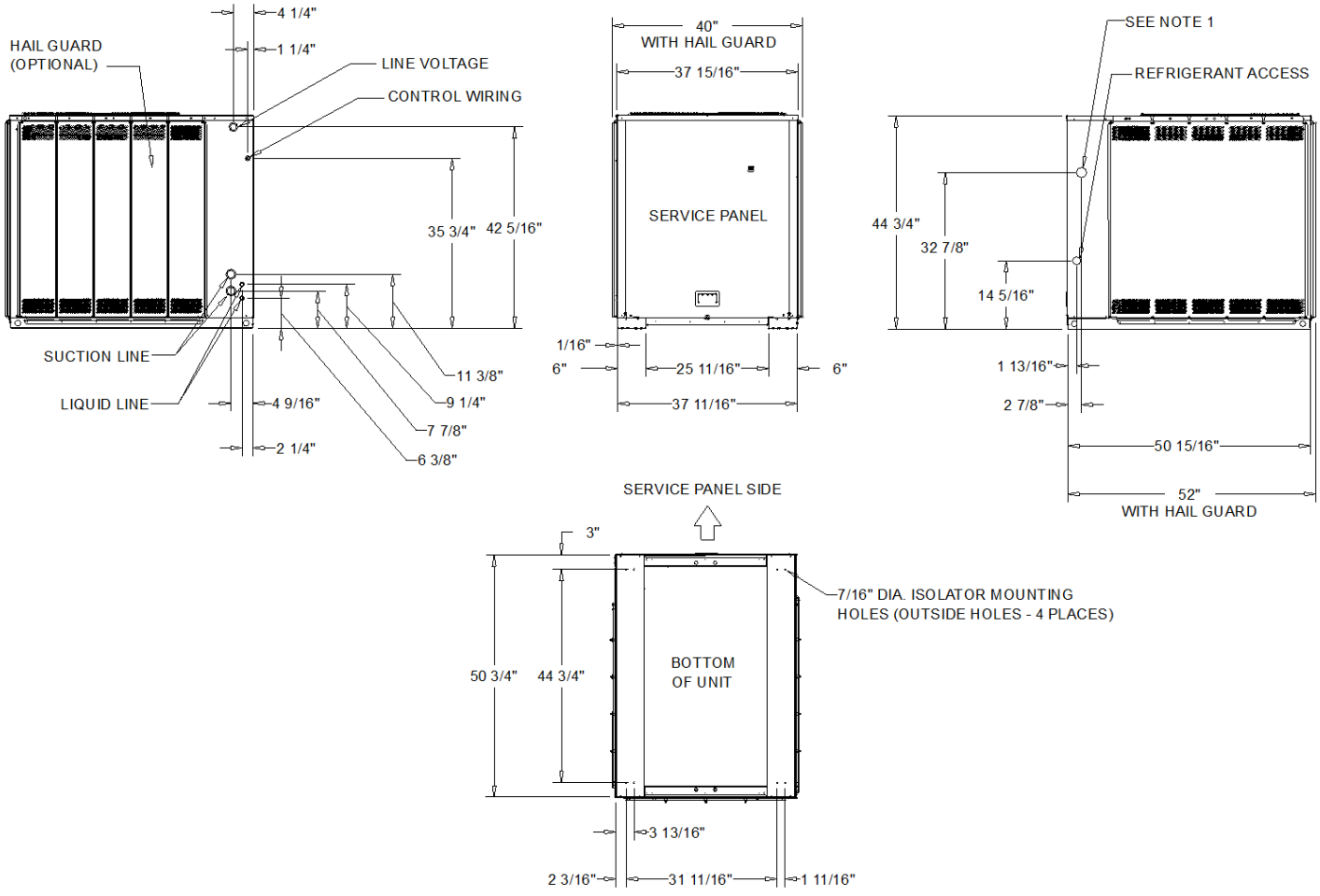
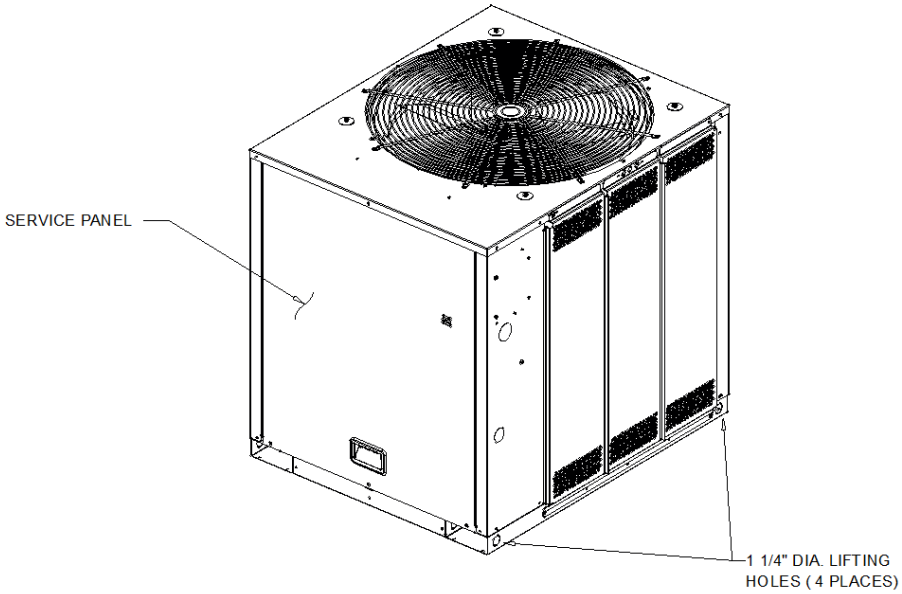
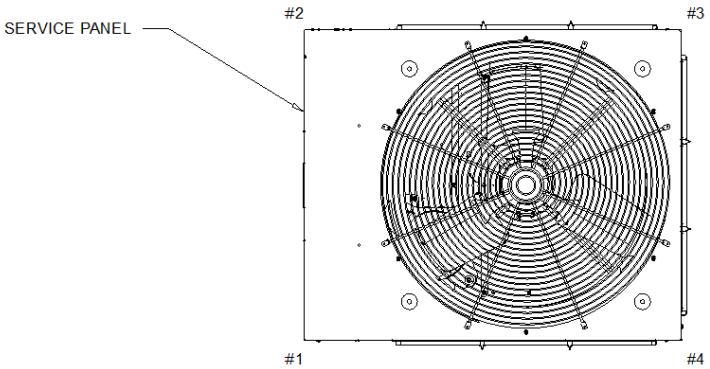


10 TON HEAT PUMP CONDENSER (DUAL COMPRESSOR)

DIMENSIONAL DRAWING





WEIGHTS AND CORNER WEIGHTS

Shipping:	478.0 lb
Net	433.0 lb
Corner 1:	125.0 lb
Corner 2:	119.0 lb
Corner 3:	96.0 lb
Corner 4:	93.0 lb

WEIGHTS AND LOAD POINT LOCATION

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- Perforated, painted galvanized steel

Phase Monitor/Reversal Protection
Phase monitor shall provide 100% protection for motors and compressors against problems caused by phase loss, phase imbalance, and phase reversal. Phase monitors are equipped with an LED that provides an ON or FAULT indicator. Quick-Access Panels

- Remove a few screws for access to the standardized internal components and wiring.

Condenser and Air Handler Pairings

Table 3. Model number descriptions

TWE Air Handler with Symbio
Digit 15 — Controls **1** = Constant Volume **C** = 2 Stage Airflow (Electromechanical Condenser Only) **D** = 2 Stage Airflow/Single Zone VAV (Symbio Condenser Only)

TWE Air Handler (pre-Symbio)
Digit 15 — Controls **0** = Constant Volume **A** = 2 Stage Airflow (Electromechanical Condenser Only) **B** = Single Zone VAV (ReliaTel Condenser Only)

Table 4. Condenser and air handler pairing instructions (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Wiring Reference	Instructions
	Type	Supply Fan Type (model # digit)		
Odyssey Electromechanical (Digit 15 = E)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	"Pairing C or 3," p. 10	
		2-Speed Airflow (Digit 15 = C)		
		Single Zone VAV (Digit 15 = D)	"Pairing D," p. 12	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.
Odyssey ReliaTel (Digit 15 = R)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	"Pairing 4," p. 14	
		2-Speed Airflow (Digit 15 = C)	"Pairing E," p. 16	
		Single Zone VAV (Digit 15 = D)	"Pairing F," p. 16	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.

Condenser and Air Handler Pairings

Table 4. Condenser and air handler pairing instructions (continued) (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Wiring Reference	Instructions
	Type	Supply Fan Type (model # digit)		
Odyssey Symbio (Digit 15 = S)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	"Pairing A," p. 18	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		2-Speed Airflow (Digit 15 = C)	"Pairing H," p. 20	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		Single Zone VAV (Digit 15 = D)	"Pairing B," p. 18	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
	Odyssey Electromechanical	Constant Volume (Digit 15 = 0) 2-Speed Airflow (Digit 15 = A)	"Pairing 1 or 2," p. 22	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat.
	Odyssey ReliaTel	Variable Speed, Single Zone VAV (Digit 15 = B)	"Pairing G (preferred)," p. 24	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
			"Pairing G (optional)," p. 27	Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. This pairing requires the replacement of the RTOM module with a Symbio Relay Board (MOD03105) and that the VFD wires 81B, 82B, 93B, 94B and 94D be replaced with wire harness kit WIR010190 (required) and WIR010185 (optional). The Air Handler will operate as a 2-speed fan.
	Generic Air Handler	Constant Volume	"Pairing Y," p. 29	
Two Symbio Condensers (2 condensers to 1 air handler)	Odyssey Electromechanical		"Pairing Z," p. 30	

AH-1

PRMH20260023

6 - 25 Ton Unitary Split Systems Indoor

Unit Overview

Model	TWE24044BAA**BD000000000000000000000000000
Unit Tonnage	20 Tons
Max A.H. Operating weight	904.0 lb
Min A.H. Operating weight	831.0 lb
Unit Voltage	460/60/3
Field Applied Voltage	0
Refrigeration Circuit	Dual Circuit
Controls	2 Stg Airflow/SZVAV - Symbio

Matched Outdoor Unit

Matched System IEER	12.50 Number
Matched System EER	10.0 EER

Fan Information

Airflow	8000 cfm
External Static Pressure	0.500 in H2O
External Plus Component Static Pressure	0.600 in H2O
Supply fan motor RPM	872 rpm
Supply fan motor BHP	3.82 bhp
Fan Motor Heat	7.91 MBh

Cooling Information

Cooling EDB	80.00 F	**Gross Sensible Capacity**	205.42 MBh
Cooling EWB	67.00 F	**Latent Capacity**	54.70 MBh
Ambient Temperature	95.00 F	**Net Total Capacity**	248.11 MBh
Unit Leaving Dry Bulb	57.87 F	**Net Sensible Capacity**	193.41 MBh
Unit Leaving Wet Bulb	57.08 F		
Gross Total Capacity	260.14 MBh		

Heating Information

Heat Pump Information		Electric Heat Information	
Winter EDB	70.00 F	**Heating EDB**	70.00 F
Winter Outdoor Ambient DB	47.00 F	**Electric Heat Capacity (kW)**	49.88 kW
Heat Pump Capacity	231.16 MBh	**Electric Heat Delta T**	19.59 F
Gross Heating Capacity	218.12 MBh	**Heating LAT**	96.19 F
Heating Delta T	26.19 F		

Electrical Information

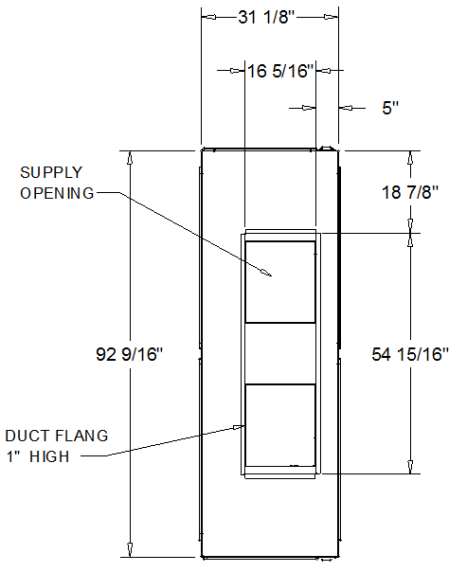
External Static Pressure	0.500 in H2O	**External Plus Component Static Pressure**	0.600 in H2O
MCA - A.H.	84.00 A		
MOP - A.H.	90.00 A		
Supply Fan Motor FLA	7.10 A		

AH-1

Refrigerant Information

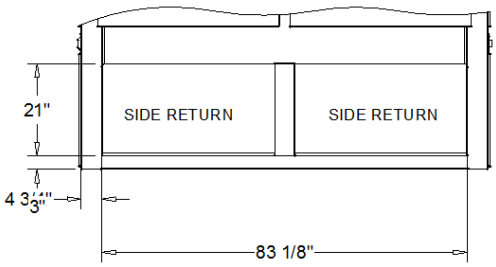
Evaporator Rows	3
Evaporator Fin Spacing	168 Per Foot
Evaporator face velocity	384 ft/min
Evaporator Face Area	21.65 sq ft
Evaporator Motor FLA	7.10 A

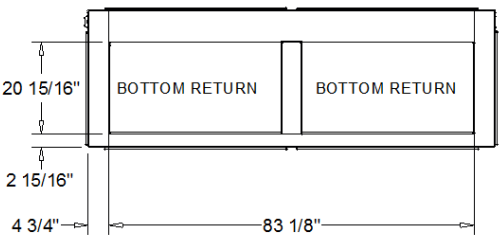
AH-1

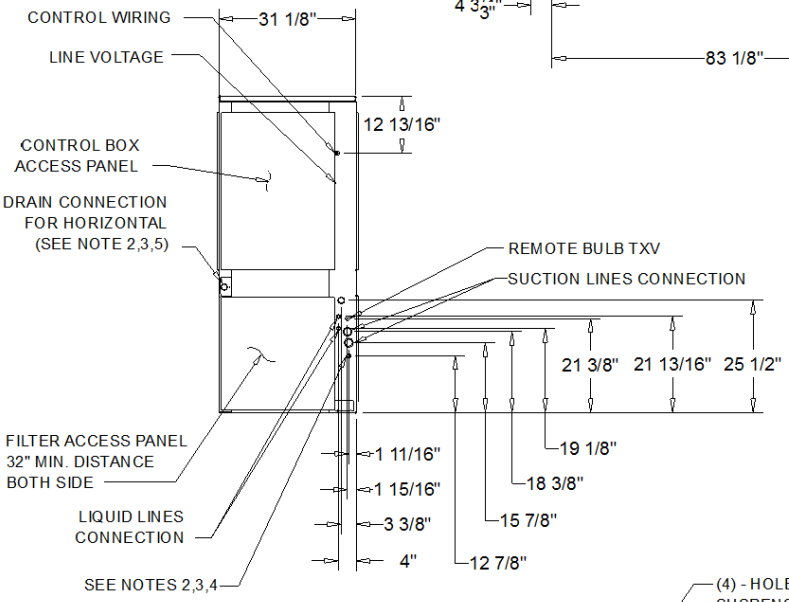


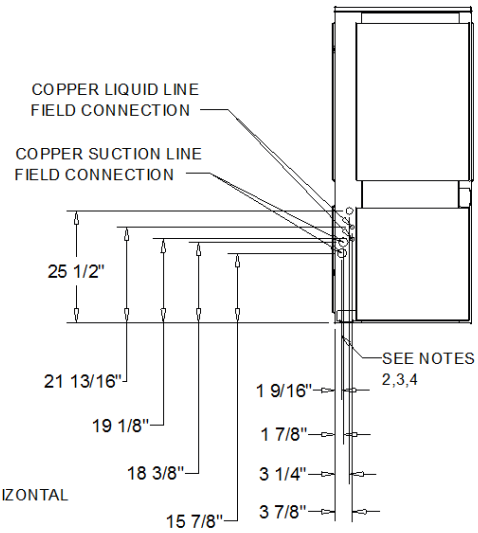
NOTES:
1 PANEL DEPTH 1/2" (TYP.ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.

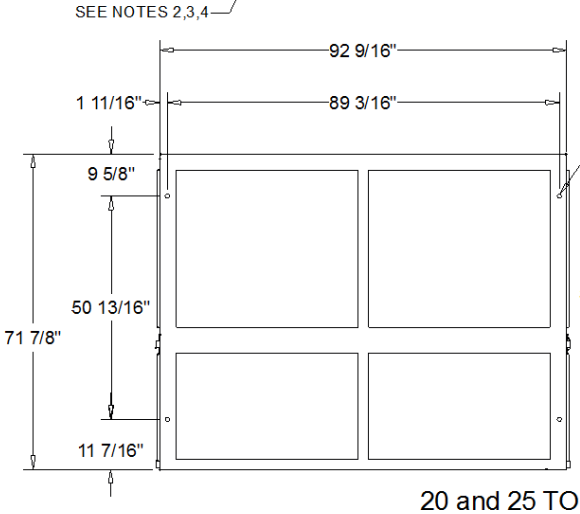
REFRIGERANT
1. SUCTION CONNECTION (1 3/8" OD) AND LIQUID CONNECTION (5/8" OD)

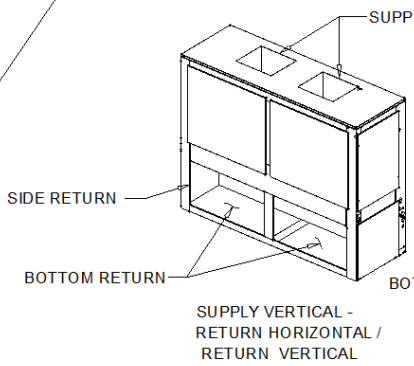


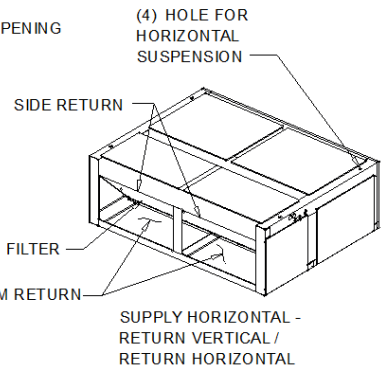






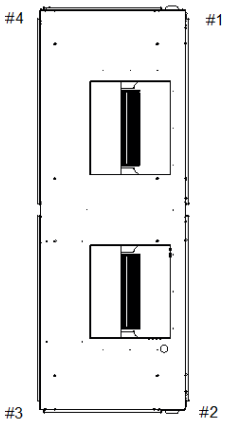






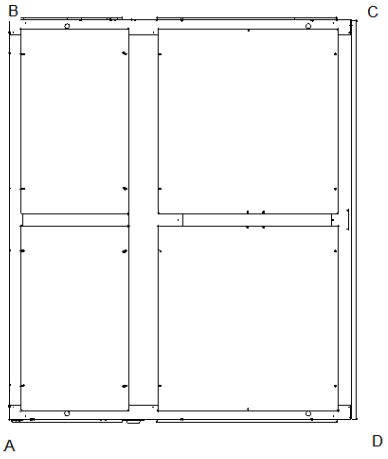
20 and 25 TON AIR HANDLER (DUAL CIRCUIT)

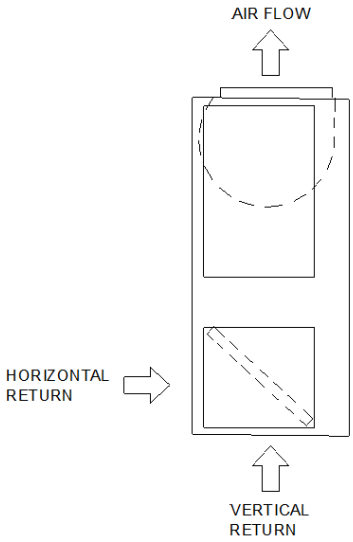
DIMENSIONAL DRAWING



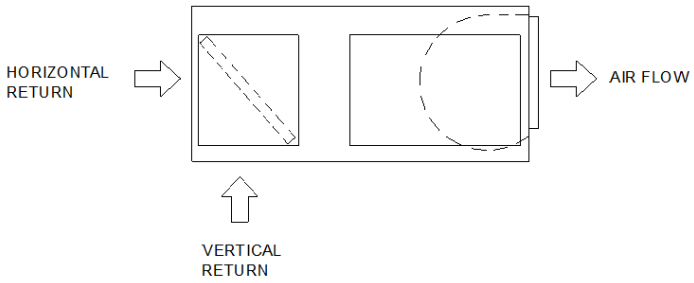
WEIGHTS AND CORNER WEIGHTS

Shipping:	925.0 lb
Net	831.0 lb
VERTICAL	
Corner 1:	261.0 lb
Corner 2:	171.0 lb
Corner 3:	164.0 lb
Corner 4:	235.0 lb
HORIZOTNAL	
Corner A:	259.0 lb
Corner B:	184.0 lb
Corner C:	149.0 lb
Corner D:	239.0 lb





VERTICAL APPLICATION

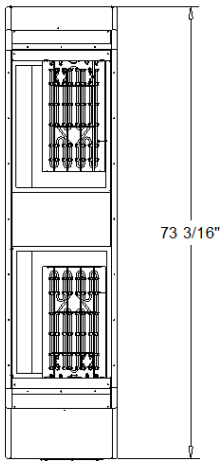


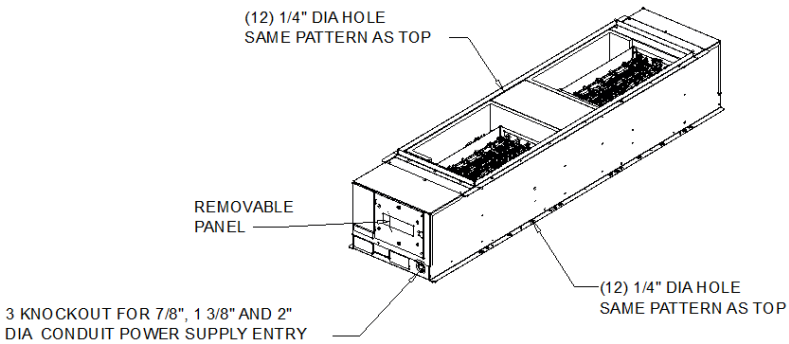
HORIZONTAL APPLICATION

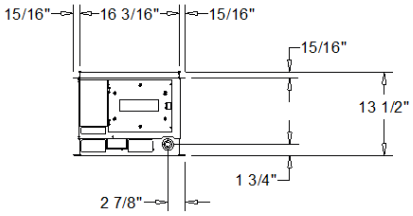
WEIGHTS AND LOAD POINT LOCATION FOR CONDENSOR

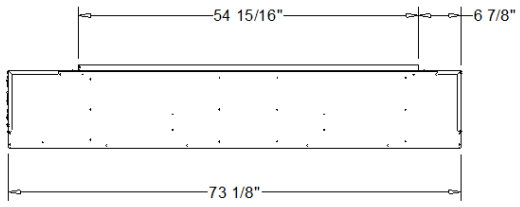
WEIGHT AND RIGGING

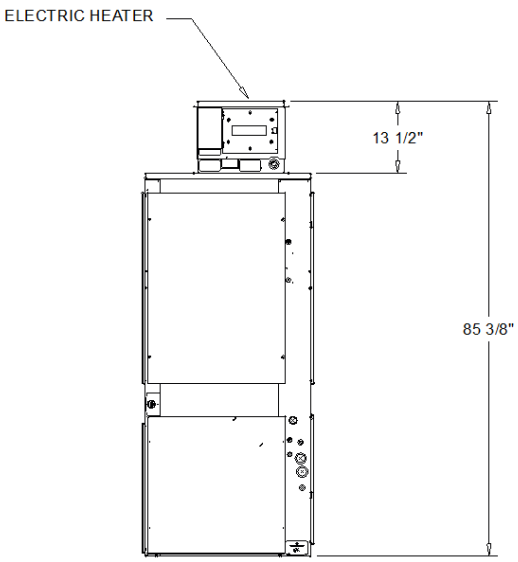
AH-1

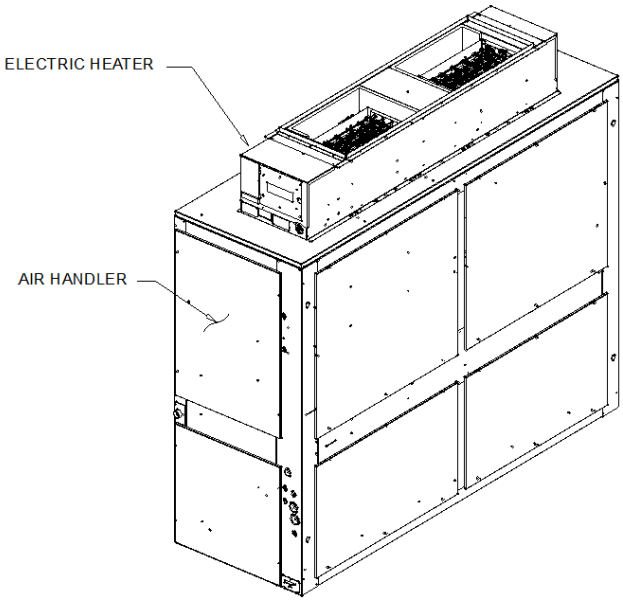












20 - 25 TON ELECTRIC HEATER

DIMENSIONAL DRAWING

General - *(TWE)*
- Completely factory assembled
- Convertible for horizontal or vertical configuration
- Convertible for cooling only or heat pump application
- Convertible for left or right external connections (refrigerant and/or electrical)
- Convertible for front or bottom air return
- Nitrogen holding charge
- Certified to UL 1995 for indoor blower coil units

Casing - *(TWE)*
- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Access panels with captive screws
- Completely insulated with foil faced, cleanable, fire retardant, permanent, odorless glass fiber materi al
- Captured or sealed insulation edges
- Electrical connection bushings or plugs
- Refrigerant connection bushings or plugs
- Withstand elevated internal static pressure

Refrigeration System - *(TWE)*
- Single or dual circuit
- Distributor(s)
- Thermal expansion valves (TXVs)

Evaporator Coil - *(TWE)*
- 3/8" internally enhanced copper tube mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 449 psig.
- Draw-through airflow
- Dual circuits are interlaced/intertwined
- Double sloped, removable, cleanable, composite drain pan
- Four drain pan positions

Indoor Fan - *(TWE)*
- Double inlet, double width, forward curved, centrifugal type fan
- Dual fans on 12.5-25 ton air handlers-Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor - *(TWE*)
- Adjustable motor sheaves (constant volume units)
- Fixed motor sheaves (SZVAV and 2-Speed VFD)
- Thermal overload protection
- Permanently lubricated bearings
- Meet energy policy of 1992 (EPACT)
- Optional oversized motors for high static applications

Controls - *(TWE)*
- Completely internally wired
- Colored and keyed connectors, colored wires
- Magnetic indoor fan contactor
- Detachable low voltage connectors
- Single point power entry
- Evaporator defrost control

Single Zone Variable Air Volume / 2-Speed Airflow - *TWE*
- Variable Frequency Drive (VFD)
- Motor soft start - avoids start up belt noise and increases belt life
- Programmable VFD keypad accessible outside of airstream
- Airflow adjustment via display/keypad on SymbioTM 700 controller in condenser
- Discharge air sensor
- Symbio 700 Options Module
- VFD rated motor
- Factory installed oversized motor available

Filters - *(TWE)*
- 2 inch, MERV 13 high efficiency filters

Electric Heaters - *(TWE)*
- Heavy duty nickel chromium elements
- Agency approved
- Installs directly on fan discharge
- One or two stage control (dependent upon capacity)
- Single point power entry
- Terminal strip connections

230V Heaters
- Internally delta connected
- Automatic reset of high limit controls through pilot duty with secondary backup fuse links

Condenser and Air Handler Pairings

Table 3. Model number descriptions

TWE Air Handler with Symbio
Digit 15 — Controls **1** = Constant Volume **C** = 2 Stage Airflow (Electromechanical Condenser Only) **D** = 2 Stage Airflow/Single Zone VAV (Symbio Condenser Only)

TWE Air Handler (pre-Symbio)
Digit 15 — Controls **0** = Constant Volume **A** = 2 Stage Airflow (Electromechanical Condenser Only) **B** = Single Zone VAV (ReliaTel Condenser Only)

Table 4. Condenser and air handler pairing instructions (See document SS-SVN016A-EN)

Condenser (model # digit)	**Air Handler**		**Instructions**
	Type	**Supply Fan Type (model # digit)**	
Odyssey Electromechani-cal (Digit 15 = E)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	
		2-Speed Airflow (Digit 15 = C)	
		Single Zone VAV (Digit 15 = D)	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.
Odyssey ReliaTel (Digit 15 = R)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	
		2-Speed Airflow (Digit 15 = C)	
		Single Zone VAV (Digit 15 = D)	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.

Condenser and Air Handler Pairings

AH-1

Table 4. Condenser and air handler pairing instructions (continued) (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Instructions
	Type	**Supply Fan Type (model # digit)**	
Odyssey Symbio (Digit 15 = S)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		2-Speed Airflow (Digit 15 = C)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		Single Zone VAV (Digit 15 = D)	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
	Odyssey Electromechanical	Constant Volume (Digit 15 = 0)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat.
		2-Speed Airflow (Digit 15 = A)	
	Odyssey ReliaTel	Variable Speed, Single Zone VAV (Digit 15 = B)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
			Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. This pairing requires the replacement of the RTOM module with a Symbio Relay Board (MOD03105) and that the VFD wires 81B, 82B, 93B, 94B and 94D be replaced with wire harness kit WIR010190 (required) and WIR010185 (optional). The Air Handler will operate as a 2-speed fan.
	Generic Air Handler	Constant Volume	
Two Symbio Condensers (2 condensers to 1 air handler)	Odyssey Electromechanical		

6 - 25 Ton Unitary Split Systems Indoor

Unit Overview

Model	TWE09044BAA**BD000000000000000000000000000
Unit Tonnage	7.5 Ton
Max A.H. Operating weight	373.0 lb
Min A.H. Operating weight	336.0 lb
Unit Voltage	460/60/3
Field Applied Voltage	0
Refrigeration Circuit	Dual Circuit
Controls	2 Stg Airflow/SZVAV - Symbio

Matched Outdoor Unit

Matched System IEER	14.10 Number
Matched System EER	11.2 EER

Fan Information

Airflow	3000 cfm
External Static Pressure	0.500 in H2O
External Plus Component Static Pressure	0.560 in H2O
Supply fan motor RPM	829 rpm
Supply fan motor BHP	1.21 bhp
Fan Motor Heat	2.03 MBh

Cooling Information

Cooling EDB	80.00 F	**Gross Sensible Capacity**	76.82 MBh
Cooling EWB	67.00 F	**Latent Capacity**	20.00 MBh
Ambient Temperature	95.00 F	**Net Total Capacity**	93.07 MBh
Unit Leaving Dry Bulb	57.67 F	**Net Sensible Capacity**	73.07 MBh
Unit Leaving Wet Bulb	57.07 F		
Gross Total Capacity	96.87 MBh		

Heating Information

Heat Pump Information		Electric Heat Information	
Winter EDB	70.00 F	**Heating EDB**	70.00 F
Winter Outdoor Ambient DB	47.00 F	**Electric Heat Capacity (kW)**	24.94 kW
Heat Pump Capacity	83.30 MBh	**Electric Heat Delta T**	26.12 F
Gross Heating Capacity	79.25 MBh	**Heating LAT**	95.38 F
Heating Delta T	25.38 F		

Electrical Information

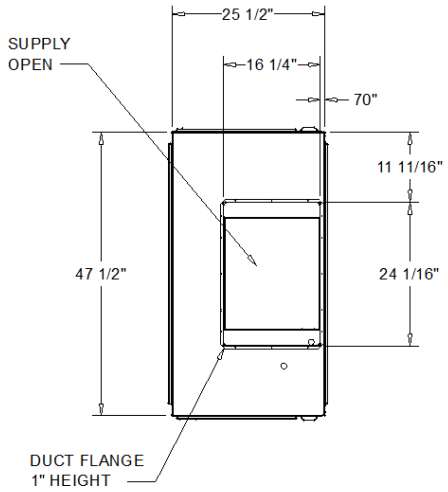
External Static Pressure	0.500 in H2O	**External Plus Component Static Pressure**	0.560 in H2O
MCA - A.H.	42.00 A		
MOP - A.H.	45.00 A		
Supply Fan Motor FLA	3.30 A		

AH-3

Refrigerant Information

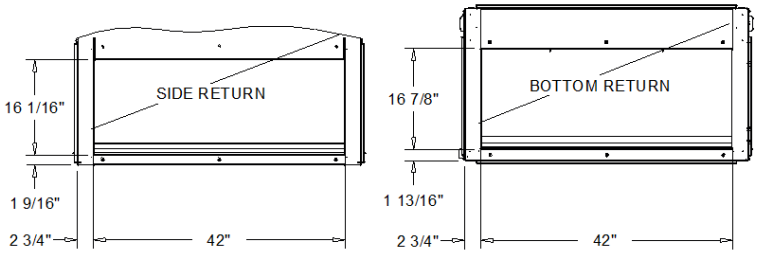
Evaporator Rows	4
Evaporator Fin Spacing	168 Per Foot
Evaporator face velocity	387 ft/min
Evaporator Face Area	8.07 sq ft
Evaporator Motor FLA	3.30 A

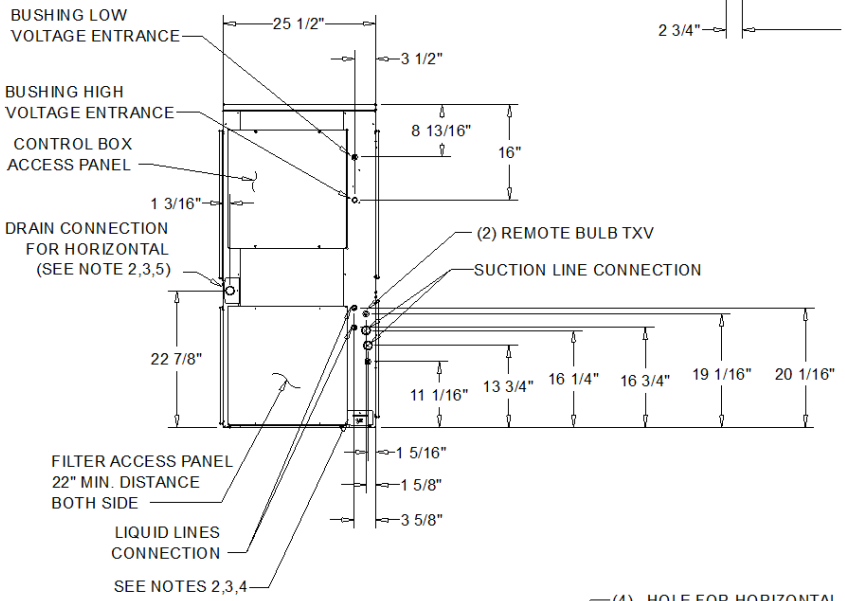
AH-3

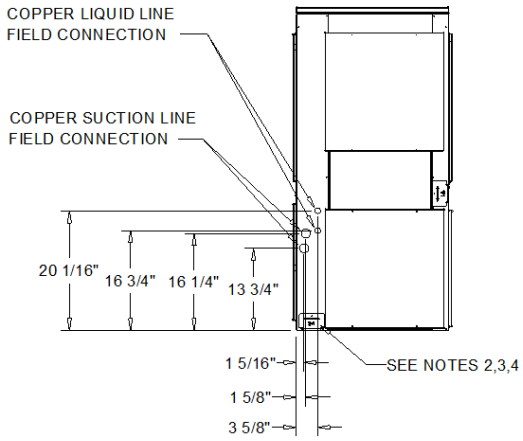


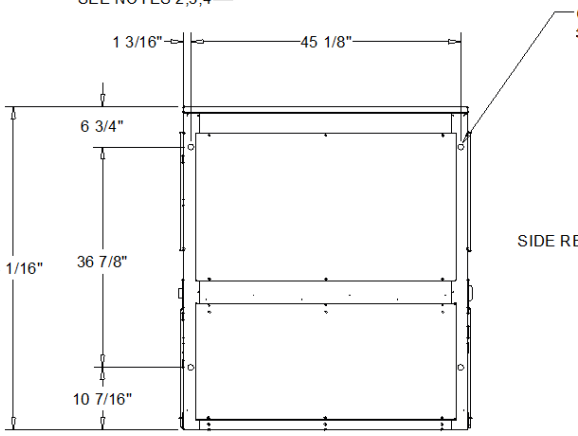
NOTES:
1 PANEL DEPTH 1/2" (TYP.ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.

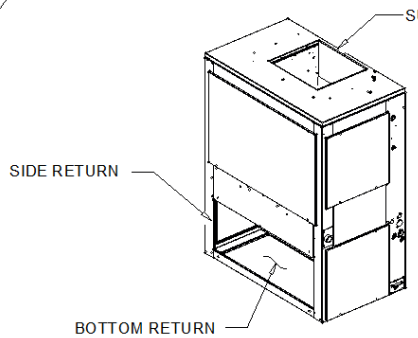
REFRIGERANT
1. SUCTION CONNECTION (1 1/8" OD) AND LIQUID CONNECTION (1/2" OD)



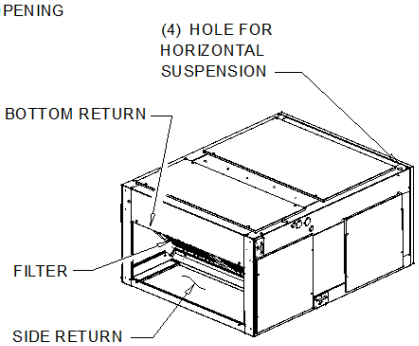








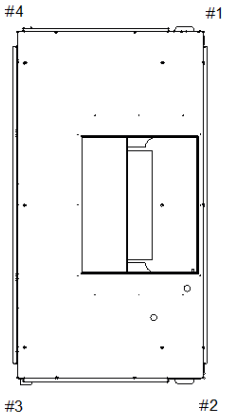
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL



SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

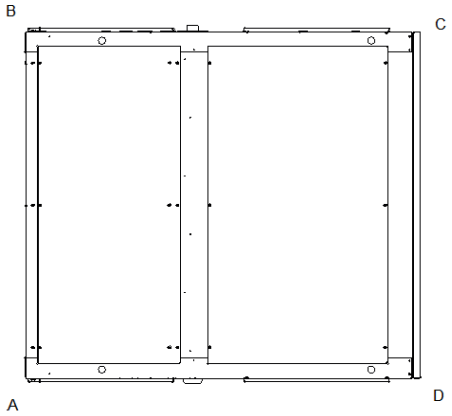
6 - 7.5 TON AIR HANDLER (DUAL CIRCUIT)

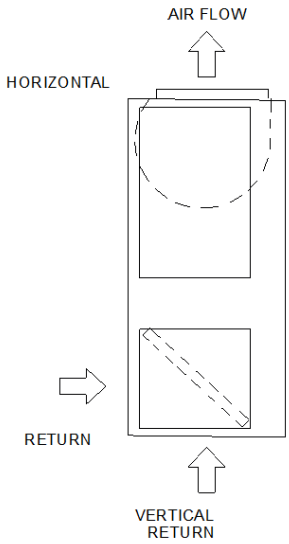
DIMENSIONAL DRAWING

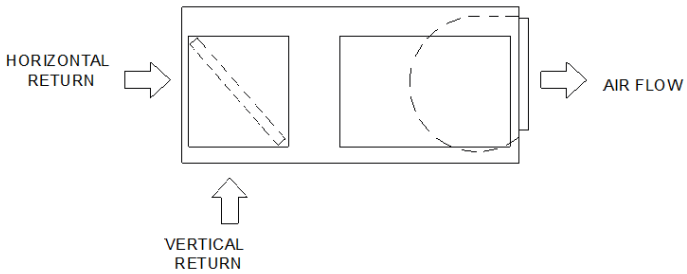


WEIGHTS AND CORNER WEIGHTS

Shipping:	398.0 lb
Net	336.0 lb
VERTICAL	
Corner 1:	70.0 lb
Corner 2:	102.0 lb
Corner 3:	78.0 lb
Corner 4:	89.0 lb
HORIZOTNAL	
Corner A:	59.0 lb
Corner B:	95.0 lb
Corner C:	90.0 lb
Corner D:	92.0 lb

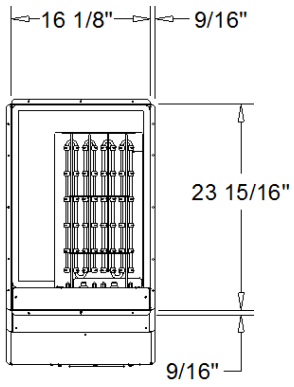


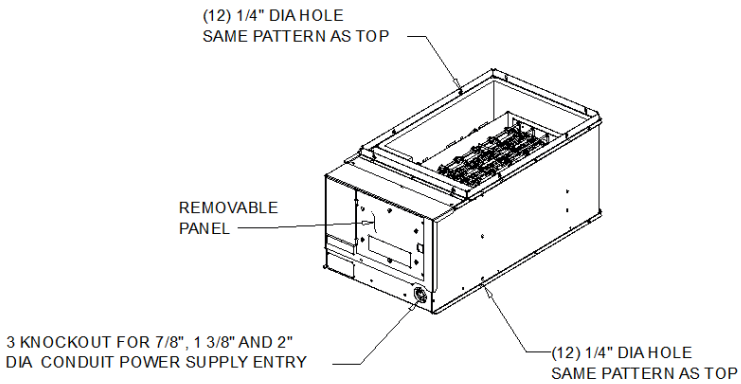


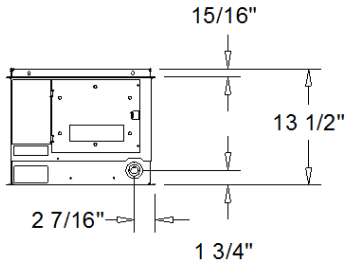


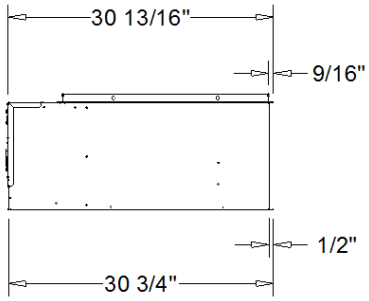
WEIGHTS AND LOAD POINT LOCATION FOR CONDENSOR

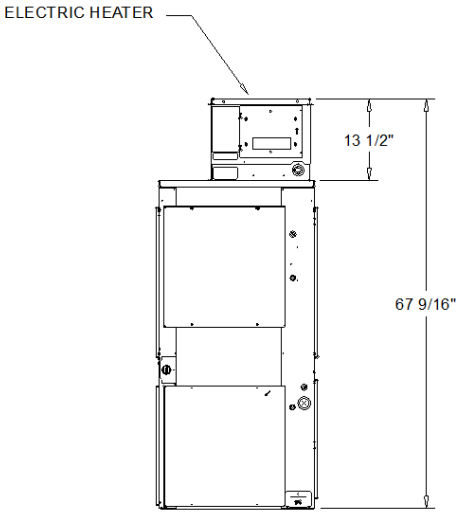
WEIGHT AND RIGGING

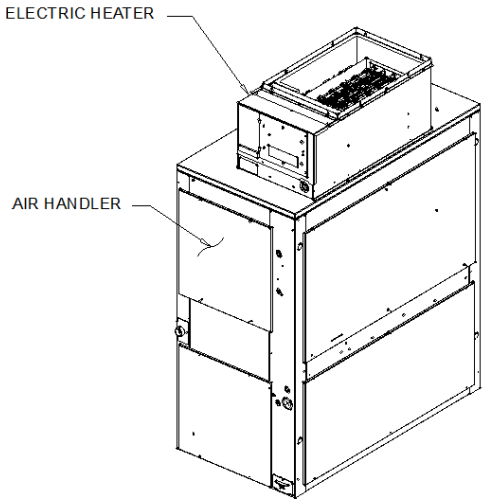












6 - 7 1/2 TON ELECTRIC HEATER

DIMENSIONAL DRAWING

General - *(TWE)*
- Completely factory assembled
- Convertible for horizontal or vertical configuration
- Convertible for cooling only or heat pump application
- Convertible for left or right external connections (refrigerant and/or electrical)
- Convertible for front or bottom air return
- Nitrogen holding charge
- Certified to UL 1995 for indoor blower coil units

Casing - *(TWE)*
- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Access panels with captive screws
- Completely insulated with foil faced, cleanable, fire retardant, permanent, odorless glass fiber materi al
- Captured or sealed insulation edges
- Electrical connection bushings or plugs
- Refrigerant connection bushings or plugs
- Withstand elevated internal static pressure

Refrigeration System - *(TWE)*
- Single or dual circuit
- Distributor(s)
- Thermal expansion valves (TXVs)

Evaporator Coil - *(TWE)*
- 3/8" internally enhanced copper tube mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 449 psig.
- Draw-through airflow
- Dual circuits are interlaced/intertwined
- Double sloped, removable, cleanable, composite drain pan
- Four drain pan positions

Indoor Fan - *(TWE)*
- Double inlet, double width, forward curved, centrifugal type fan
- Dual fans on 12.5-25 ton air handlers-Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor - *(TWE*)
- Adjustable motor sheaves (constant volume units)
- Fixed motor sheaves (SZVAV and 2-Speed VFD)
- Thermal overload protection
- Permanently lubricated bearings
- Meet energy policy of 1992 (EPACT)
- Optional oversized motors for high static applications

Controls - *(TWE)*
- Completely internally wired
- Colored and keyed connectors, colored wires
- Magnetic indoor fan contactor
- Detachable low voltage connectors
- Single point power entry
- Evaporator defrost control

Single Zone Variable Air Volume / 2-Speed Airflow - *TWE*
- Variable Frequency Drive (VFD)
- Motor soft start - avoids start up belt noise and increases belt life
- Programmable VFD keypad accessible outside of airstream
- Airflow adjustment via display/keypad on SymbioTM 700 controller in condenser
- Discharge air sensor
- Symbio 700 Options Module
- VFD rated motor
- Factory installed oversized motor available

Filters - *(TWE)*
- 2 inch, MERV 13 high efficiency filters

Electric Heaters - *(TWE)*
- Heavy duty nickel chromium elements
- Agency approved
- Installs directly on fan discharge
- One or two stage control (dependent upon capacity)
- Single point power entry
- Terminal strip connections

230V Heaters
- Internally delta connected
- Automatic reset of high limit controls through pilot duty with secondary backup fuse links

Condenser and Air Handler Pairings

Table 3. Model number descriptions

TWE Air Handler with Symbio
Digit 15 — Controls **1** = Constant Volume **C** = 2 Stage Airflow (Electromechanical Condenser Only) **D** = 2 Stage Airflow/Single Zone VAV (Symbio Condenser Only)

TWE Air Handler (pre-Symbio)
Digit 15 — Controls **0** = Constant Volume **A** = 2 Stage Airflow (Electromechanical Condenser Only) **B** = Single Zone VAV (ReliaTel Condenser Only)

Table 4. Condenser and air handler pairing instructions (See document SS-SVN016A-EN)

Condenser (model # digit)	**Air Handler**		**Instructions**
	Type	**Supply Fan Type (model # digit)**	
Odyssey Electromechani-cal (Digit 15 = E)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	
		2-Speed Airflow (Digit 15 = C)	
		Single Zone VAV (Digit 15 = D)	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.
Odyssey ReliaTel (Digit 15 = R)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	
		2-Speed Airflow (Digit 15 = C)	
		Single Zone VAV (Digit 15 = D)	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.

Condenser and Air Handler Pairings

Table 4. Condenser and air handler pairing instructions (continued) (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Instructions
	Type	**Supply Fan Type (model # digit)**	
Odyssey Symbio (Digit 15 = S)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		2-Speed Airflow (Digit 15 = C)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		Single Zone VAV (Digit 15 = D)	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
	Odyssey Electromechanical	Constant Volume (Digit 15 = 0)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat.
		2-Speed Airflow (Digit 15 = A)	
	Odyssey ReliaTel	Variable Speed, Single Zone VAV (Digit 15 = B)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
			Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. This pairing requires the replacement of the RTOM module with a Symbio Relay Board (MOD03105) and that the VFD wires 81B, 82B, 93B, 94B and 94D be replaced with wire harness kit WIR010190 (required) and WIR010185 (optional). The Air Handler will operate as a 2-speed fan.
	Generic Air Handler	Constant Volume	
Two Symbio Condensers (2 condensers to 1 air handler)	Odyssey Electromechanical		

AH-4

6 - 25 Ton Unitary Split Systems Indoor

Unit Overview

Model	TWE12044BAA**BD000000000000000000000000000
Unit Tonnage	10 Tons
Max A.H. Operating weight	442.0 lb
Min A.H. Operating weight	406.0 lb
Unit Voltage	460/60/3
Field Applied Voltage	0
Refrigeration Circuit	Dual Circuit
Controls	2 Stg Airflow/SZVAV - Symbio

Matched Outdoor Unit

Matched System IEER	14.10 Number
Matched System EER	11.2 EER

Fan Information

Airflow	4000 cfm
External Static Pressure	0.500 in H2O
External Plus Component Static Pressure	0.600 in H2O
Supply fan motor RPM	831 rpm
Supply fan motor BHP	1.72 bhp
Fan Motor Heat	3.10 MBh

Cooling Information

Cooling EDB	80.00 F	**Gross Sensible Capacity**	100.00 MBh
Cooling EWB	67.00 F	**Latent Capacity**	24.17 MBh
Ambient Temperature	95.00 F	**Net Total Capacity**	118.74 MBh
Unit Leaving Dry Bulb	58.24 F	**Net Sensible Capacity**	94.56 MBh
Unit Leaving Wet Bulb	57.51 F		
Gross Total Capacity	124.15 MBh		

Heating Information

Heat Pump Information		Electric Heat Information	
Winter EDB	70.00 F	**Heating EDB**	70.00 F
Winter Outdoor Ambient DB	47.00 F	**Electric Heat Capacity (kW)**	34.91 kW
Heat Pump Capacity	110.41 MBh	**Electric Heat Delta T**	27.42 F
Gross Heating Capacity	104.71 MBh	**Heating LAT**	95.07 F
Heating Delta T	25.07 F		

Electrical Information

External Static Pressure	0.500 in H2O	**External Plus Component Static Pressure**	0.600 in H2O
MCA - A.H.	57.00 A		
MOP - A.H.	60.00 A		
Supply Fan Motor FLA	3.30 A		

AH-4

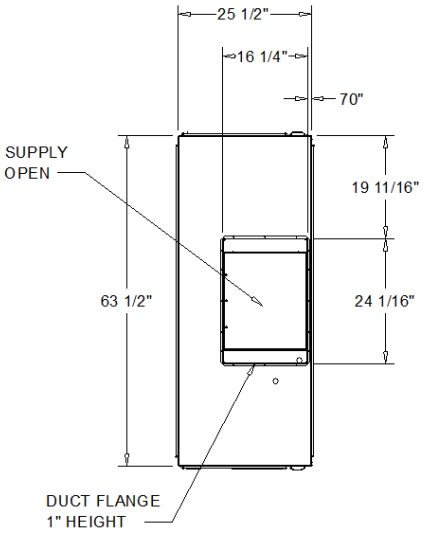
Refrigerant Information

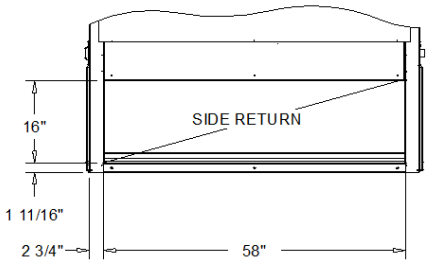
Evaporator Rows	4
Evaporator Fin Spacing	168 Per Foot
Evaporator face velocity	372 ft/min
Evaporator Face Area	11.18 sq ft
Evaporator Motor FLA	3.30 A

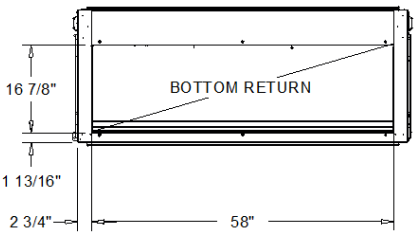
AH-4

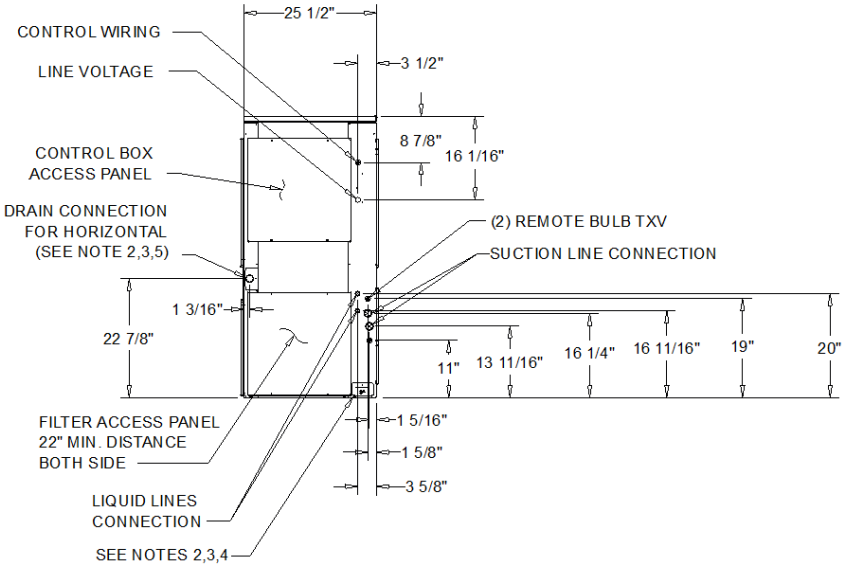
NOTES:
1 PANEL DEPTH 1/2" (TYP.ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.

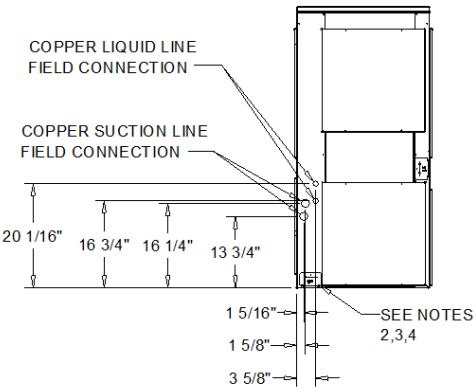
REFRIGERANT
1. SUCTION CONNECTION (1 1/8"OD) AND LIQUID CONNECTION (1/2" OD)

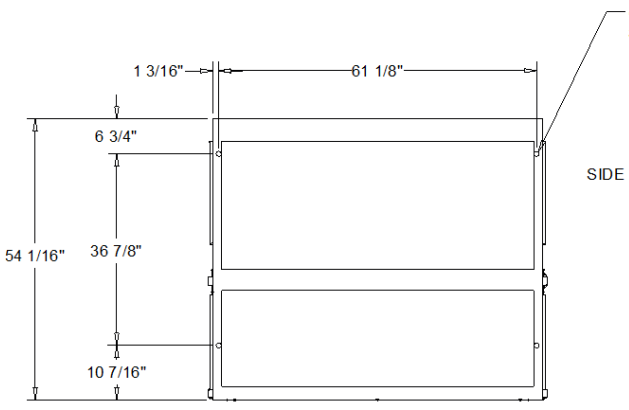


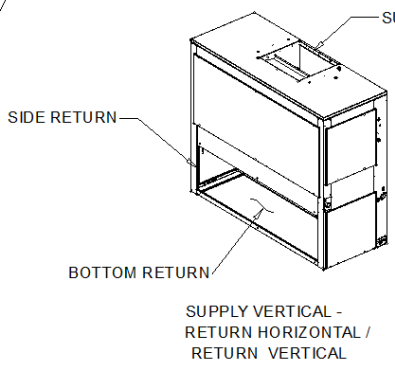




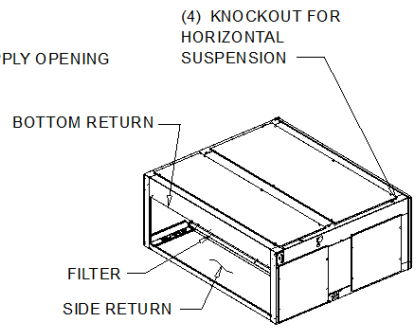








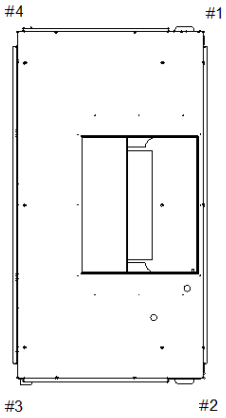
SUPPLY VERTICAL - RETURN HORIZONTAL / RETURN VERTICAL



SUPPLY HORIZONTAL - RETURN VERTICAL / RETURN HORIZONTAL

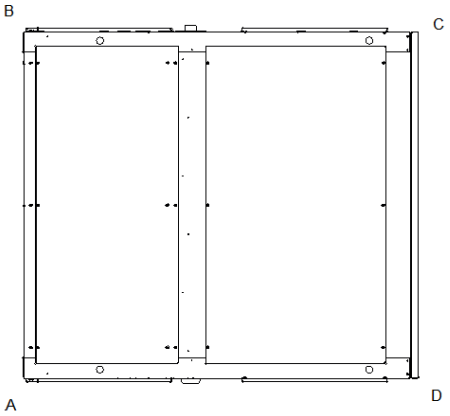
10 TON AIR HANDLER (DUAL CIRCUIT)

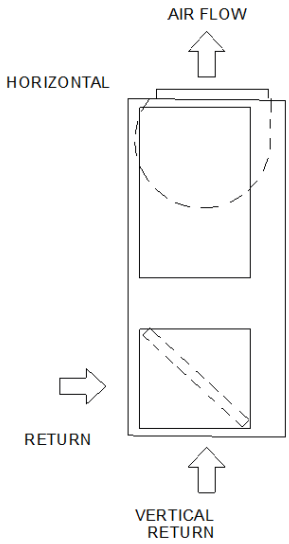
DIMENSIONAL DRAWING

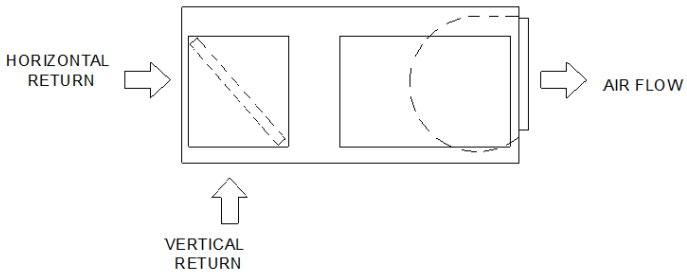


WEIGHTS AND CORNER WEIGHTS

Shipping:	454.0 lb
Net	406.0 lb
VERTICAL	
Corner 1:	80.0 lb
Corner 2:	124.0 lb
Corner 3:	113.0 lb
Corner 4:	89.0 lb
HORIZOTNAL	
Corner A:	82.0 lb
Corner B:	121.0 lb
Corner C:	80.0 lb
Corner D:	123.0 lb



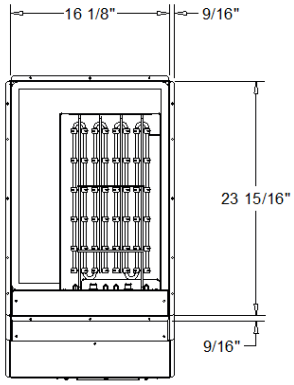


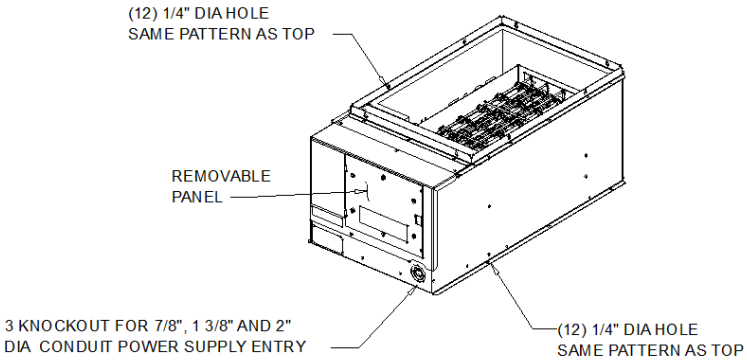


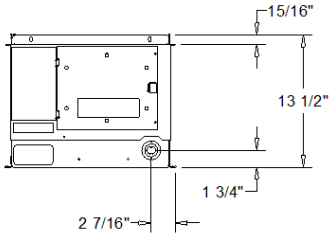
WEIGHTS AND LOAD POINT LOCATION FOR CONDENSOR

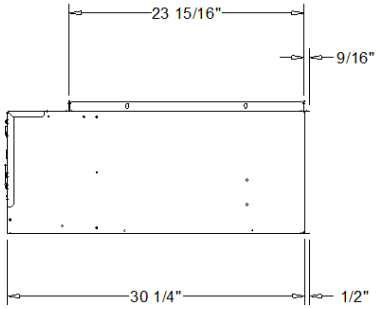
WEIGHT AND RIGGING

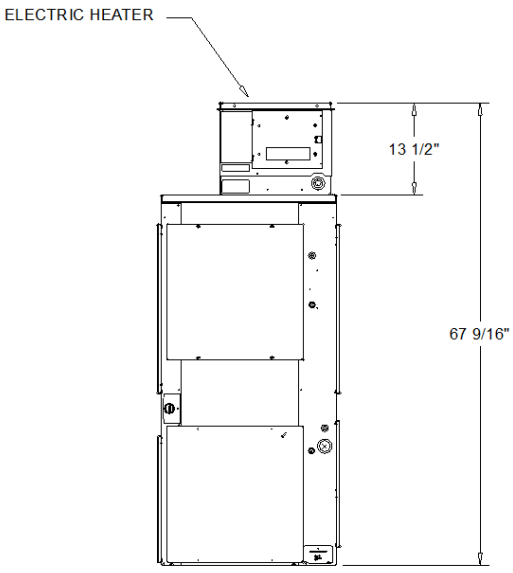
AH-4

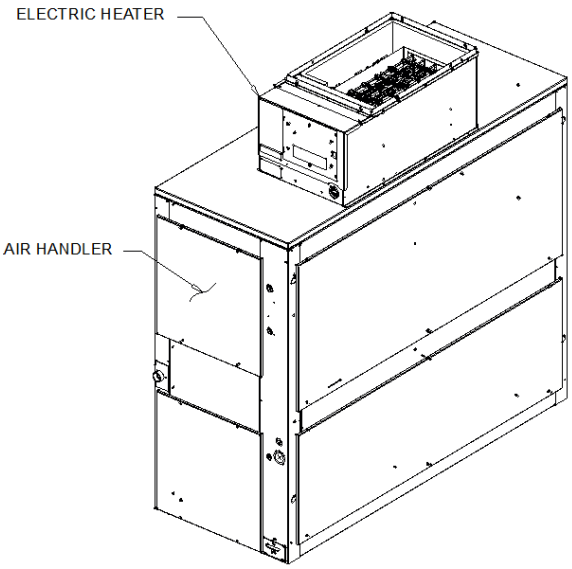












10 TON ELECTRIC HEATER

DIMENSIONAL DRAWING

General - *(TWE)*
- Completely factory assembled
- Convertible for horizontal or vertical configuration
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- Nitrogen holding charge
- Certified to UL 1995 for indoor blower coil units

Casing - *(TWE)*
- Zinc coated, heavy gauge, galvanized steel
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Indoor Fan - *(TWE)*
- Double inlet, double width, forward curved, centrifugal type fan
- Dual fans on 12.5-25 ton air handlers-Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor - *(TWE*)
- Adjustable motor sheaves (constant volume units)
- Fixed motor sheaves (SZVAV and 2-Speed VFD)
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- Evaporator defrost control

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- Discharge air sensor
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- VFD rated motor
- Factory installed oversized motor available

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- 2 inch, MERV 13 high efficiency filters

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- Agency approved
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230V Heaters
- Internally delta connected
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Condenser and Air Handler Pairings

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TWE Air Handler (pre-Symbio)
Digit 15 — Controls **0** = Constant Volume **A** = 2 Stage Airflow (Electromechanical Condenser Only) **B** = Single Zone VAV (ReliaTel Condenser Only)

Table 4. Condenser and air handler pairing instructions (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Instructions
	Type	Supply Fan Type (model # digit)	
Odyssey Electromechani-cal (Digit 15 = E)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	
		2-Speed Airflow (Digit 15 = C)	
		Single Zone VAV (Digit 15 = D)	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.
Odyssey ReliaTel (Digit 15 = R)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	
		2-Speed Airflow (Digit 15 = C)	
		Single Zone VAV (Digit 15 = D)	Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD.

Condenser and Air Handler Pairings

Table 4. Condenser and air handler pairing instructions (continued) (See document SS-SVN016A-EN)

Condenser (model # digit)	Air Handler		Instructions
	Type	**Supply Fan Type (model # digit)**	
Odyssey Symbio (Digit 15 = S)	Odyssey Symbio	Constant Volume (Digit 15 = 1)	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		2-Speed Airflow (Digit 15 = C)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication)
		Single Zone VAV (Digit 15 = D)	Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
	Odyssey Electromechanical	Constant Volume (Digit 15 = 0)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat.
		2-Speed Airflow (Digit 15 = A)	
	Odyssey ReliaTel	Variable Speed, Single Zone VAV (Digit 15 = B)	Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication)
			Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. This pairing requires the replacement of the RTOM module with a Symbio Relay Board (MOD03105) and that the VFD wires 81B, 82B, 93B, 94B and 94D be replaced with wire harness kit WIR010190 (required) and WIR010185 (optional). The Air Handler will operate as a 2-speed fan.
	Generic Air Handler	Constant Volume	
Two Symbio Condensers (2 condensers to 1 air handler)	Odyssey Electromechanical		

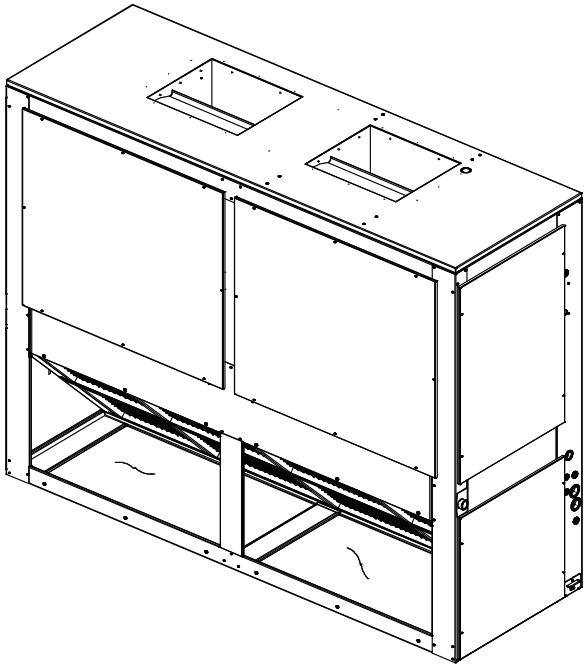
EXISTING UNITS

Installation, Operation, and Maintenance

Split System Air Conditioners
Odyssey™

Air Handler — 5 to 25 Tons

Model (60 Hz)	Model (50 Hz)
TWE0604*A/B	TWE0514DA
TWE0724*B	TWE0724DB
TWE0904*A/B	TWE0764DA/B
TWE1204*A/B	TWE1014DA/B
TWE1504*B	TWE1264DB
TWE1804*B	TWE1564DB
TWE2404*B	TWE2014DB
TWE3004*B	TWE2514DB



⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

SSA-SVX06G-EN

Ingersoll Rand

EXISTING UNITS

Model Number Description

Air Handler

Digit 1–3 — Unit Function

TWE = Air Handler

Digit 4–6 — Tonnage

051 = 4.6 Tons (50Hz)
060 = 5 Tons (50Hz)
072 = 6 Tons (60Hz)(50Hz)
076 = 6.25 Tons (50Hz)
090 = 7.5 Tons (60Hz)
101 = 8.33 Tons (50Hz)
120 = 10 Tons (60Hz)
126 = 10.4 Tons (50Hz)
150 = 12.5 Tons (60Hz)
156 = 13.0 Tons (50Hz)
180 = 15 Tons (60Hz)
201 = 16.7 Tons (50Hz)
240 = 20 Tons (60Hz)
251 = 20.9 Tons (50Hz)
300 = 25 Tons (60Hz)

Digit 7 — Refrigerant

4 = R-410A

Digit 8 — Voltage

1 = 208-230VAC - 1 PH (60Hz)
3 = 208-230VAC - 3 PH (60Hz)
4 = 460VAC - 3 PH (60Hz)
W = 575VAC - 3 PH (60Hz)
D = 380–415VAC - 3 PH (50Hz)
K = 380VAC - 3 PH (60Hz)

Digit 9 — Refrigeration Circuit/Stage

A = Single Circuit
B = Dual Circuit

Digit 10 — Major Design Sequence

A = Rev A

Digit 11 — Minor Design Sequence

A = Rev A

Digit 12–13 — Service Digits

00 = 00

Digit 14 — Efficiency Generation

A = Generation A (2018 DOE)

Digit 15 — Controls

0 = Constant Volume
A = 2 Stage Airflow (Electromechanical Cond Only)
B = Single Zone VAV (ReliaTel Cond Only)

Digit 16 — Indoor Fan Sizes

0 = Standard Motor
4 = High Static – A (Oversized Motor for VFD Units)

Digit 17–40 — None

0 = None

EXISTING UNITS

Weights

Air Handler

Table 1. Standard air handler (TWE) — unit and corner weights - (60 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
5	TWE0604*A/B	285	232	55	71	51	55	54	67	50	61
6	TWE0724*B	385	323	67	99	75	82	56	92	87	88
7.5	TWE0904*A/B	385	323	67	99	75	82	56	92	87	88
10	TWE1204*A/B	441	393	77	121	110	85	79	118	77	119
12.5	TWE1504*B	753	676	168	192	181	135	196	164	145	171
15	TWE1804*B	752	675	167	192	181	135	196	163	145	171
20	TWE2404*B	912	818	258	168	161	231	256	181	146	235
25	TWE3004*B	993	899	211	229	184	275	272	176	228	223

Table 2. SZVAV and 2-Speed VFD air handler (TWE) — unit and corner weights - (60 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
6	TWE0724*B	385	323	67	99	75	82	56	92	87	88
7.5	TWE0904*B	385	323	67	99	75	82	56	92	87	88
10	TWE1204*A/B	441	393	77	121	110	85	79	118	77	119
12.5	TWE1504*B	753	676	168	192	181	135	196	164	145	171
15	TWE1804*B	752	675	167	192	181	135	196	163	145	171
20	TWE2404*B	912	818	258	168	161	231	256	181	146	235
25	TWE3004*B	993	899	211	229	184	275	272	176	228	223

Table 3. Standard air handler (TWE) — unit and corner weights - (50 Hz)

Tons	Model Number	Shipping Max (lbs)	Net Max (lbs)	Corner Weights - Vertical				Corner Weights - Horizontal			
				1	2	3	4	1	2	3	4
4.6	TWE0514DA	285	232	55	71	51	55	54	67	50	61
6	TWE0724DB	385	323	67	99	75	82	56	92	87	88
6.25	TWE0764DA/B	385	323	67	99	75	82	56	92	87	88
8.33	TWE1014DA/B	441	393	77	121	110	85	79	118	77	119
10.4	TWE1264DB	753	676	168	192	181	135	196	164	145	171
13	TWE1564DB	752	675	167	192	181	135	196	163	145	171
16.7	TWE2014DB	912	818	258	168	161	231	256	181	146	235
20.9	TWE2514DB	993	899	211	229	184	275	272	176	228	223

Figure 14. Vertical — TWE051, 072, 076, 101, 060, 072, 090, 120