

548J*D****SINGLE PACKAGE ROOFTOP
HEAT PUMP UNITS****WITH FIELD-INSTALLED ELECTRIC HEAT****SIZES 08-14 WITH PURON® (R-410A) REFRIGERANT**

Submittal Data



Certified to ISO 9001



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



DESCRIPTION

548J***D units are one-piece, two-stage heat pump units that are low profile, prewired, tested and charged at the factory. These units have field convertible supply and return openings and are intended for installation on a roof curb accessory (ordered separately), or for slab mounting (for horizontal duct connections). Units are designed to accept field-installed electric heaters. Units may be ordered with various factory-installed options. Field-installed accessories are also available.

STANDARD FEATURES

Base Unit

- Puron (R-410A) HFC refrigerant
- SEER's up to 13.4, EER's up to 11.2
- IEER's:
 - up to 12.2 with single speed indoor fan motor
 - up to 12.5 with 2-speed/VFD indoor fan motor
- HSPF's up to 7.7 and COP's up to 3.3
- ASHRAE 90.1 compliant
- Rated in accordance with AHRI Standard 340
- Designed in accordance with Underwriters' Laboratories Std 1995 and listed by UL and UL, Canada
- Two-stage cooling capacity control
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Cooling operating range from 25°F up to 115°F (-4°C up to 46°C). Field installed accessory extends the minimum down to -20°F (-29°C)
- Convertible from vertical to horizontal airflow for slab mounting
- Two-inch disposable return air filters
- Thru-the-bottom power entry capability
- Single point electric connections on field-installed electric heat units
- 24-volt control circuit protected with resettable circuit breaker and 75-VA transformer
- Belt drive, constant torque, permanently lubricated evaporator-fan motor on all size units.
- Totally enclosed condenser motors with permanently lubricated bearings
- State-of-the-art defrost control board, easily configured for defrost cycles of 30, 60, 90, or 120 minutes.

- Central Terminal Board for component and unit wiring connections.
- Loss of Charge, High-Pressure, and Freeze Protection switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots.

Cabinet

- Access panels with easy grip handles
- Innovative, easy starting, no strip screw features on unit access panels.
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- Fully insulated cabinet
- Tool-less filter access door

Refrigerant System

- Acutrol™ refrigerant metering system
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection
- Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless copper tubes.
- Removable gauge line plugs for reading refrigerant pressure with unit panels in place
- Four-way reversing valve operation
- Suction Line Accumulator standard - prevents excessive liquid flood back of refrigerant to the compressor even during the start of the defrost cycle.

Standard Parts Warranty

- 5-year electric heater (field-installed)
- 5-year compressor
- 1-year parts

SUBMITTAL DATA

Job Name _____
Architect _____
Engineer _____
Contractor _____
Unit Designation _____

PERFORMANCE DATA

Unit Operating Weight _____ lb

Curb Weight _____ lb

Cooling

Net Total Capacity _____ Btuh

Net Sensible Capacity _____ Btuh

Compressor Power Input _____ kW

at Outdoor Air Temperature _____ °F

Indoor Entering Air db: _____ °F wb _____ °F

Airflow _____ CFM External Static Pressure _____ in.wg

Heating

Power Input to Unit _____ kw

Integrated Capacity _____ Btuh

Indoor Operating Air Temperature _____ °F
db

Outdoor Air Temperature _____ °F (Winter Design)

Rating at 70% R.H. Outdoors _____ kW Heater Selected

_____ Heat/Cool Ratio

Electrical Capacity Required _____ Btuh

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz

Minimum Circuit Amps _____ Maximum Overcurrent Protection (Fuse Only) _____

FACTORY-INSTALLED OPTIONS (FIOPs)

☐ **Economizer with DRY BULB sensing and barometric relief**

Standard Air Leak Dampers —

- ☐ Models with W7212 controller provides standard non-diagnostic control. EconoMi\$er IV.
- ☐ Models with W7220 controller meets California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements. EconoMi\$er X.
- ☐ Models with RTU Open controller meets California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements. EconoMi\$er 2.

☐ **Economizer with ENTHALPY sensing and barometric relief**

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☐ **Economizer with DRY BULB sensing and barometric relief**

ULTRA LOW LEAK Air Dampers —

- ☐ Models with W7220 controller meets California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, has return, outside air and relief damper leakage that meets Title 24 (section 140.4 and ASHRAE 90.1) requirements - plus 5 year limited parts warranty. EconoMi\$er X.
- ☐ Models with RTU Open controller meets California Title 24 (section 120.2) Fault Detection and Diagnostic (FDD) requirements, has return, outside air and relief damper leakage that meets Title 24 (section 140.4 and ASHRAE 90.1) requirements - plus 5 year limited parts warranty. EconoMi\$er 2.

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- ☐ 2-Speed Indoor Fan Motor system utilizes a Variable Frequency Drive (VFD) to automatically adjust the indoor fan motor for 2 speed indoor fan motor control. Conforms to ASHRAE 90.1 2010 Standard – section 6.4.3.10.b.

- ☐ RTU Open multi-protocol controller communicates to LON, MODBUS, BACNET and Johnson N2 protocols.

- ☐ Through the base connectors electric conduit

- ☐ Two-position motorized outdoor air damper

- ☐ Non-fused disconnect switch (80 A Max)

- ☐ Powered 115-volt convenience outlet

- ☐ Non-powered 115-volt convenience outlet

- ☐ High static indoor fan motor and drive

- ☐ Return Air smoke detector

- ☐ Supply Air smoke detector

- ☐ Pre-coated Al/Cu condenser coil

- ☐ E-coated Al/Cu condenser coil

- ☐ E-coated Al/Cu condenser and evaporator coil

- ☐ Cu/Cu condenser coil

- ☐ Cu/Cu condenser coil and evaporator coil

- ☐ Condenser hail guard — louvered style

- ☐ CO₂ sensor

OPTIONAL WARRANTIES

- ☐ Complete Unit Parts only up to 5 years

- ☐ Complete Unit Parts and Labor up to 5 years

Many other optional warranties are available.

See the *Commercial Start-Up and Optional Extended Warranty Price* price pages for further information.

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FIELD INSTALLED ACCESSORIES

☐ Economizer with DRY BULB sensing and barometric relief

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- ☐ Display Kit for Variable Frequency Drive (VFD), 2-Speed Indoor Fan Motor System. Allows additional set up and diagnostics of the unit VFD controller. Can be unit mounted or used with any other compatible VFD model as a reusable device.

- ☐ Power Exhaust — vertical or horizontal

- ☐ Electric heat

- ☐ Single point kit

- ☐ Two-position motorized outdoor air damper

- ☐ Manual outdoor air damper 25%

- ☐ Manual outdoor air damper 50%

- ☐ Roofcurb — 14 inch (356mm) tall

- ☐ Roofcurb — 24 inch (610mm) tall

- ☐ Thru-the-bottom utility connection kit

- ☐ Time Guard II compressor anti-cycle control

- ☐ Outdoor coil hail guard — louvered style

- ☐ Low ambient head pressure controller, down to -20°F (-29°C)

- ☐ Programmable setback thermostat

- ☐ Electrical/Mechanical thermostat and subbase

- ☐ Phase monitor

- ☐ Head pressure control

- ☐ Disconnect switch bracket (for size 14 units only)

- ☐ Supply Duct Cover (for size 14 units only)

Economizer Sensors

- ☐ Single Dry bulb control

- ☐ Differential Dry bulb control

- ☐ Single enthalpy control

- ☐ Differential enthalpy control

- ☐ CO₂ - wall mounted

- ☐ CO₂ - duct mounted

NOTES:

1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN 1/8", IN W/1. METERS.

UNIT	J	K	H
	2.2	2.1	2.2
	7.8	7.8	7.8

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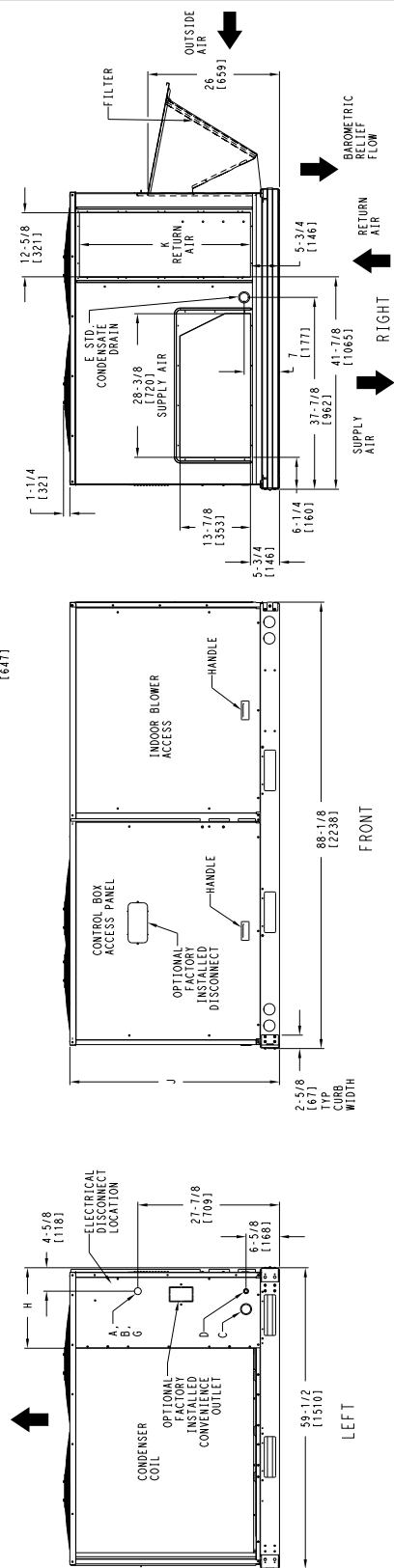
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CONNECTION SIZES	
A	1 3/8" (35) DIA FIELD POWER SUPPLY HOLE
B	2 1/2" (64) DIA POWER SUPPLY KNOCKOUT
C	1 3/4" (51) DIA GAUGE ACCESS PLUG
D	1/8" (22) DIA FIELD CONTROL WIRING HOLE
E	3/4" - 14 NPT CONDENSATE DRAIN
G	2" (51) DIA POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTPW002A01				
	THREADED CONDUIT SIZE	WIRE SIZES (MAX.)	REQ'D HOLE SIZES (MAX.)	
W	1/2"	ACC. 1/8"	7/8" [22.2]	
X	1/2"	24V 7/8" [22.2]	7/8" [22.2]	
Y	1 1/4" (002)	POWER 1 3/4"	[44.4]	

FOR "THRU-THE-BASEPANEL" FACTORY OPTION,
FITTINGS FOR ONLY X & Y ARE PROVIDED



SHEET	DATE	SUPERSEDES	REV
1 OF 2	10-04-10	548J 08-09 SINGLE ZONE ELECTRIC HEAT PUMP	48TM501455 E

C12051

548J***D

CERTIFIED DIMENSION 548J*08 - 09D



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UNIT	STD. UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.				
	LB.	KG.	LB.	KG.	LB.	KG.	LB.	KG.	LB.	KG.	X	Y			
548J-08D	865	401	187	85	158	72	247	112	293	133	39	15 1/16 [101.4]	35 1/4 [895]	23 1/2 [597]	Z
548J-09D	910	413	200	91	166	75	247	112	297	135	39	5/8 [1006]	34 1/2 [881]	23 1/2 [597]	Z

*** STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.

CORNER A

CORNER B

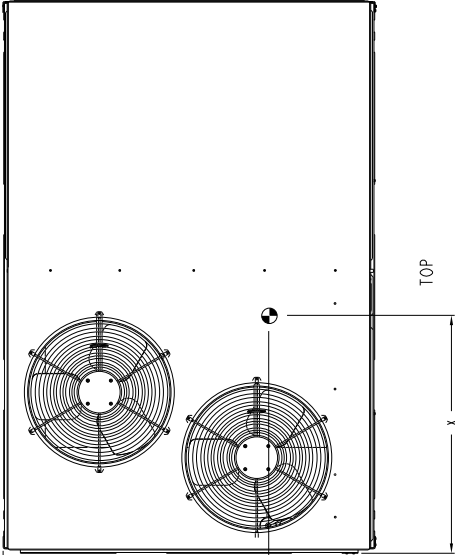
CORNER C

CORNER D

Y

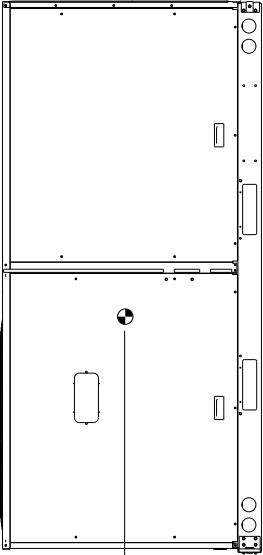
X

TOP



FRONT

Z



SHEET
2 OF 2

DATE
10-04-10

SUPERCIDES
03-10-09

548J 08-09 SINGLE ZONE ELECTRIC
HEAT PUMP

48TM501455

REV
E

NOTES:

1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW

UNIT	H	J	K
548J-12D	15-7/8 [403]	49-3/8 [1253]	36-3/8 [925]

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CONNECTION SIZES	
A	1 3/8" (35) DIA. FIELD POWER SUPPLY HOLE
B	2 1/2" (64) DIA. POWER SUPPLY KNOCKOUT
C	1 3/4" (44) DIA. GAUGE ACCESS PLUG
D	7/8" (22) DIA. FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
G	2" (51) DIA. POWER SUPPLY KNOCK-OUT

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE C8BTMPR002A01	
THREADED CONDUIT SIZE	WIRE USE SIZES (MAX.)
1/2"	ACC. 7/8" (22.2)
1/2"	24V 7/8" (22.2)
1 1/4"	POWER 1 3/4" (44.4)

FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X & Y ARE PROVIDED

BACK

LEFT

FRONT

RIGHT

SHEET	DATE	SUPPLIES	548J-12D SINGLE ZONE ELECTRIC HEAT PUMP	REV
1 OF 2	10-04-10	05-07-10		B

7

CERTIFIED DIMENSION 548J*12D



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UNIT	STD. WEIGHT	UNIT WEIGHT	CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.					
			LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z	
548J-12D	1050	476	284	129	201	91	234	106	331	150	36 1/2	192 7/8	32	81 3/4	23 1/2	59 7/8

• STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.
FOR OPTIONS AND ACCESSORIES REFER TO THE PRODUCT DATA CATALOG.

CORNER A

CORNER B

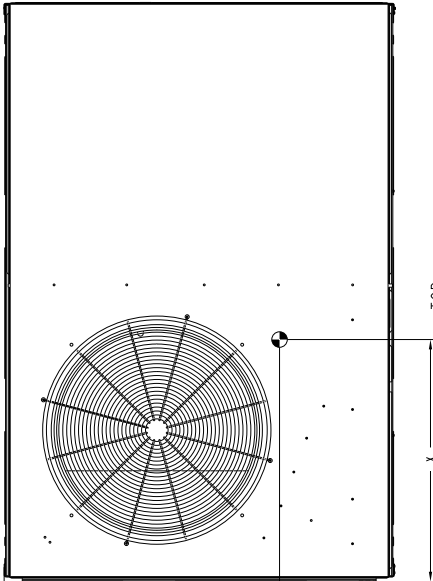
CORNER C

CORNER D

Y

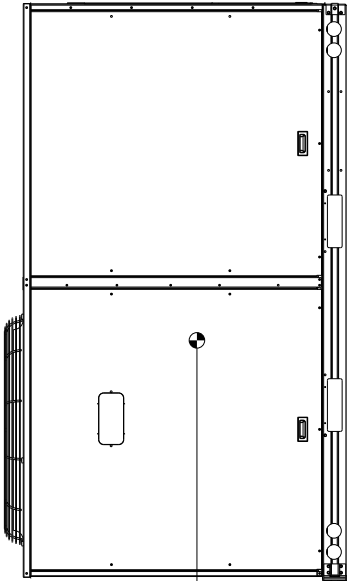
X

TOP



FRONT

Z



SHEET
2 OF 2

DATE
10-04-10

SUPERCODES
05-07-10

548J-12D SINGLE ZONE ELECTRIC
HEAT PUMP

48TM502374

REV
B

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3. DIRECTION OF AIR FLOW



ACCESSORY NO.	THREADED CONDUIT SIZE	WIRE USE	REC'D HOLE SIZES (MAX.)
005	W	1/2" ACC.	7/8" (122.2)
	X	1/2"	24V (122.2)
	Y	1/2"	POWER (122.2)
006	W	1 1/4" ACC.	1 1/2" (138.1)
	X	1/2"	7/8" (122.2)
	Y	1/2"	24V (122.2)
007	W	1 1/2" ACC.	2" (50.8)
	X	1/2"	7/8" (122.2)
	Y	1/2"	24V (122.2)

FOR "THIRD-THE-BASE" CHART
THESE ARE THE WIRE USE
CRITERIA FOR 5000, 100400, 101400

FOR "THIRD-THE-BASE" CHART
CONDUIT SIZES ARE PROVIDED AS
SPECIFIED ON "006".

DATE	SUPERCEDS		REV
05/22/12	-	548J 14 SINGLE ZONE ELECTRIC HEAT PUMP	B 50TM500766

548J***D

CERTIFIED DIMENSION 548J*14D

UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS	KG	LBS	KG	LBS	KG	LBS	KG	LBS	KG	X	Y	Z
548J-14	1370	623	369	168	361	164	316	144	324	147	57 1/2 (1460)	29 1/2 (750)	24 (610)

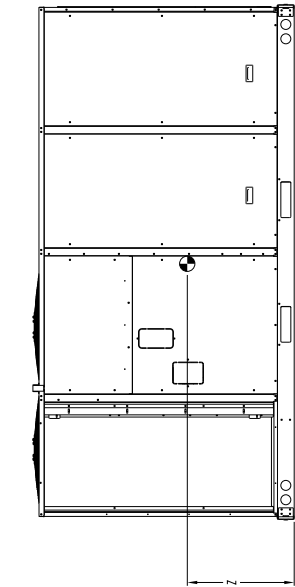
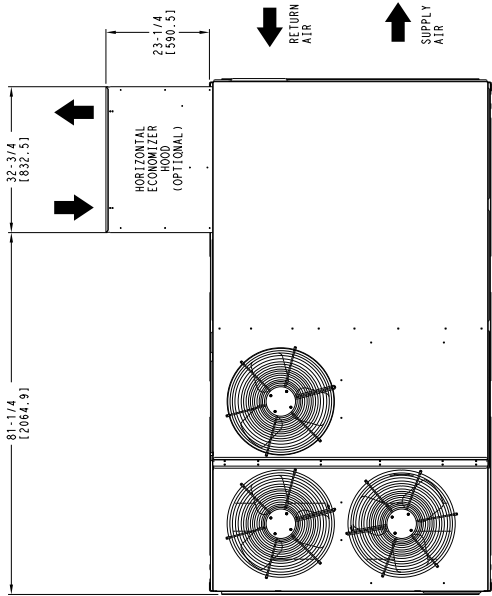
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FRONT

HORIZONTAL ECONOMIZER

DATE	SUPERSEDES	548J 14 SINGLE ZONE ELECTRIC HEAT PUMP	50TM500766	REV
05/22/12	-			B

548J***D

C13311

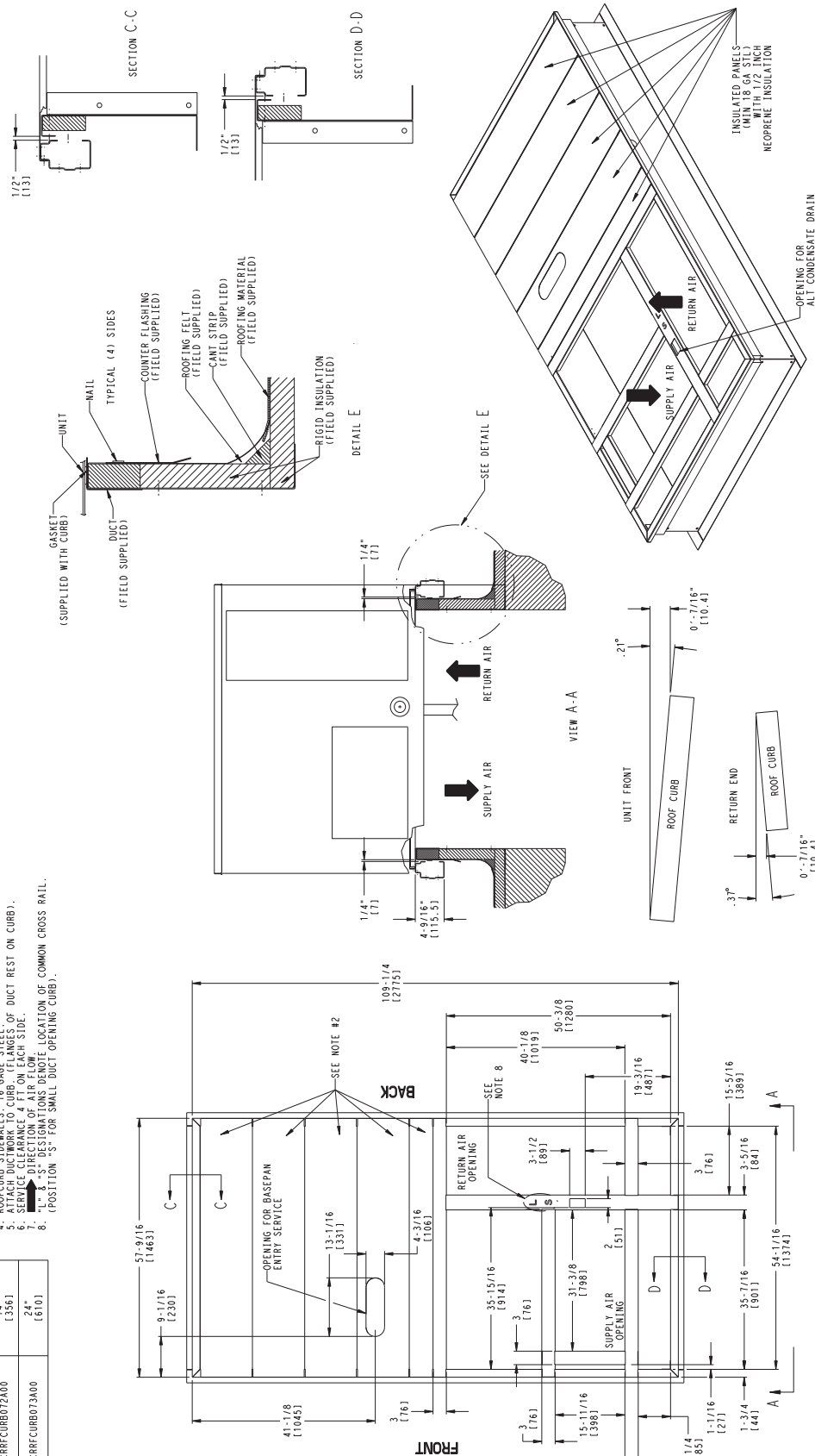
548J***D

NOTES:

1. HOOD/CURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. DIMENSIONS IN INCHES.
3. DIMENSIONS IN PARENS ARE IN MILLIMETERS.
4. HOOD/CURB SIDEWALLS - 16 GAGE STEEL.
5. ATTACH DUCTWORK TO CURB (FLANGES OF DUCT REST ON CURB).
6. SERVICE CLEARANCE 4 FT ON EACH SIDE.
7. DIRECTION OF AIR FLOW.
8. "L" & "S" DESIGNATIONS DENOTE LOCATION OF COMMON CROSS RAIL (POSITION "S" FOR SMALL DUCT OPENING CURB).


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MAX CURB LEVELING TOLERANCES