80 Hartford Avenue, Mount Vernon, NY 10553
Tel: 877-ICE-AIR-1 (877-423-2471)
Fax: 914-668-5643
email: sales@ice-air.com
www.ice-air.com

COLD CLIMATE PACKAGED TERMINAL UNIT CERTIFIED DRAWING

DWG. NO.
RSXC-Series Submittal
REV. - 2.2

PROJECT		DATE	1/24/25		BY	ML	REVISIONS	
PURCHASER		P.O. #					BY	DESCRIPTION
ARCHITECT		SHIP DATE						
ENGINEER								
HVAC CONTR.								
GEN. CONTR.								

DESIGNATION	MODEL NUMBER	QTY
A		
B		
C		
TOTAL		

UNIT SPECIFICATIONS+

SERIES MODEL #	RSXC09	RSXC13	RSXC18
Cooling Capacity (Btu/hr)[1]	9,200	12,500	16,300
Sensible Capacity (Btu/hr)[1]	8,200	9,500	11,800
Cooling Capacity Range (Btu/hr)	6,300 - 11,800	6,500 - 14,900	7,300 - 18,000
EER [1]	12.1	11.1	10.0
Heating Capacity (Btu/hr) [2]	10,300	13,700	17,900
Heating Capacity Range (Btu/hr)	8,700 - 12,600	9,000 - 14,700	10,900 - 19,300
COP [2]	4.1	3.7	3.0
HSPF [2]	9.6	9.5	9.0
Voltage	208	208	208
Electric Heater (kW) [3]	3.0 | 3.5	3.0 | 3.5 | 4.3	3.0 | 3.5 | 4.3
Electric Heater (A) [3]	14.4 | 16.8	14.4 | 16.8 | 20.7	14.4 | 16.8 | 20.7
Current in Cooling Operation (Amps)	3.7	5.4	7.8
Power in Cooling Operation (Watts)	760	1126	1630
Current in Heating Operation (Amps)	3.5	5.2	8.4
Power in Heating Operation (Watts)	737	1086	1750
MCA (without Electric Heat)	7.9	9.9	12.9
MOCP (without Electric Heat)	15	15	20
MCA (with Electric Heat)	18.4 | 21.5	18.4 | 21.5 | 26.4	18.4 | 21.5 | 26.4
MOCP (with Electric Heat)	20 | 25	20 | 25 | 30	20 | 25 | 30
Evaporator Motor Nominal HP	1/25	1/25	1/25
Airflow (CFM)	380	400	480
Outside Air (CFM)	60	60	60
Weights (lbs.)	127	134	151
	LOW AMBIENT PERFORMANCE		
HEATING CAPACITY @ 10F	6,600	7,700	11,600
COP @ 10F	2.20	2.14	2.02
HEATING CAPACITY @ 5F	6,100	6,900	10,600
COP @ 5F	1.98	1.91	1.93
HEATING CAPACITY @ -5F	5,500	6,400	8,100
COP @ -5F	1.74	1.62	1.60

SPECIFICATION NOTES:

1. Cooling mode performance ratings are in compliance with AHRI Standard 310/380 and CSA Standard 744.
2. Heating mode performance ratings are in compliance with AHRI Standard 310/380 and CSA Standard 744.
3. (OPTIONAL) If back-up electric heat is required, customer has choice of manual trigger switch OR automatic changeover at -5°F (+/- 3 °F) with manual switch override.
4. Units without electric heat will operate below -5°F with derated performance. Performance below -5°F has not been certified.
5. Electric heat is recommended in markets that may experience ambient temperatures below -5°F.
6. Performance data based on R32 refrigerant.

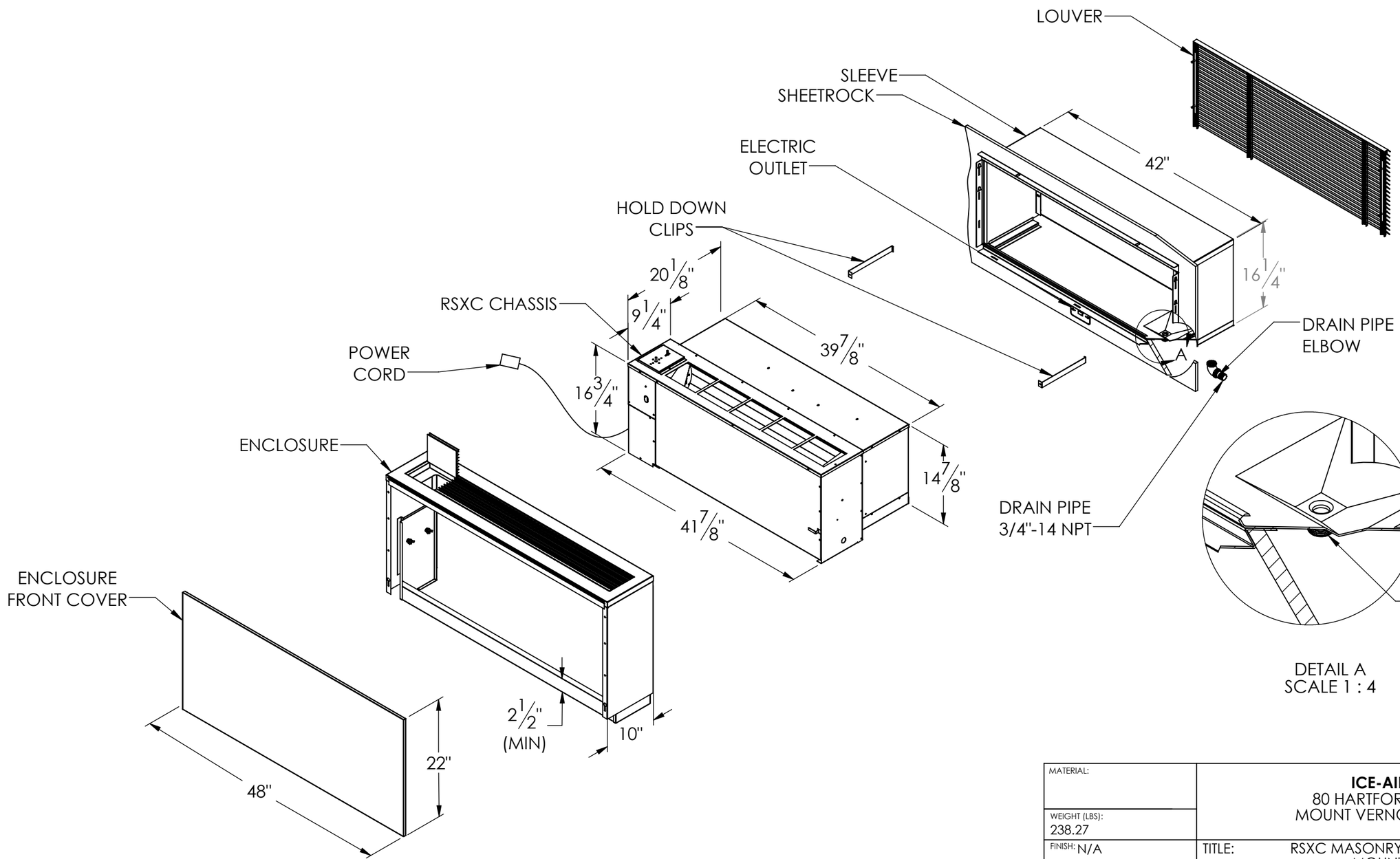
GENERAL NOTES:

1: For use as a complete assembly only.
Fo replacement unit applications,
consult Manufacturer.

CUSTOM NOTES

RSXC LAYOUT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
01	DRAIN PIPE POSITION CHANGED		10/12/2022
02	STD ENCL. HEIGHT CHANGED		2/22/2023



DETAIL A
SCALE 1 : 4

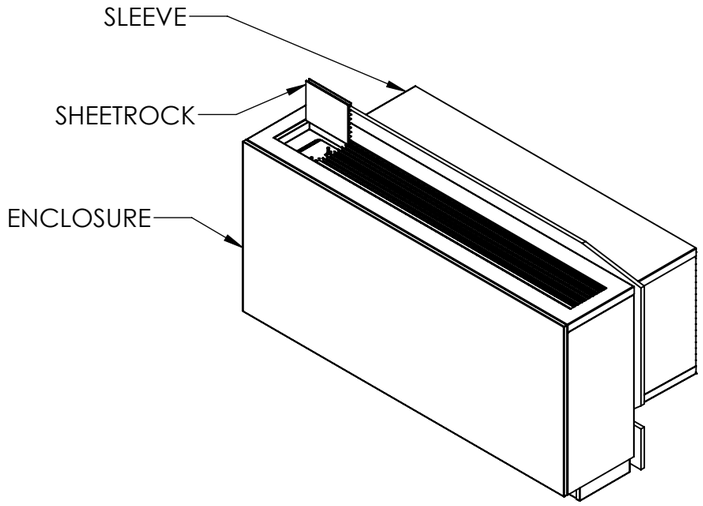
MATERIAL:		**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553	
WEIGHT (LBS): 238.27			
FINISH: N/A		TITLE: RSXC MASONRY WALL SLEEVE UNIT MOUNTED T-STAT	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: VP	DATE 07/30/20	DWG. NO. RSXC LAYOUT
	DRAWING BY:	DATE:	
	SIZE B	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1 / REV 01

Third Angle Projection

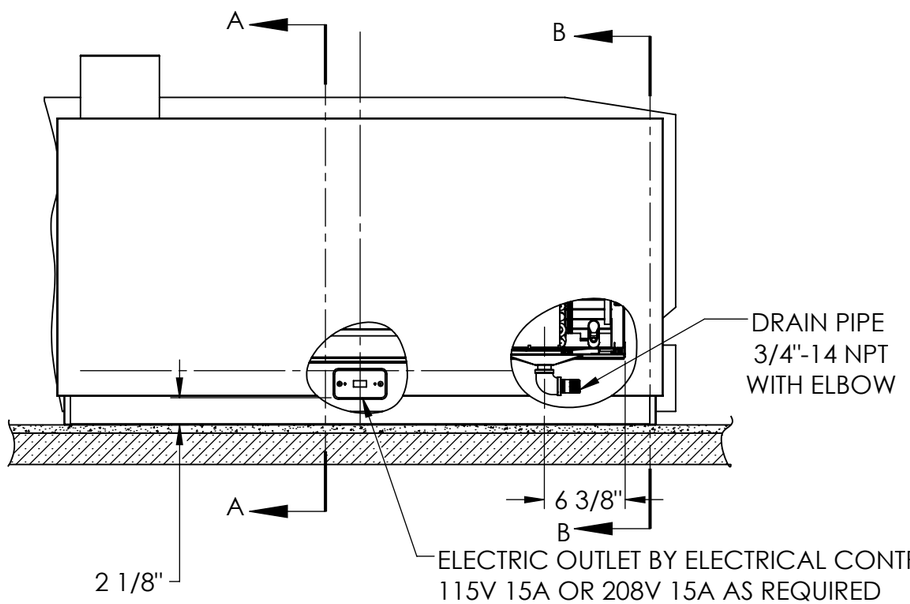
8 7 6 5 4 3 2 1

RSXC LAYOUT

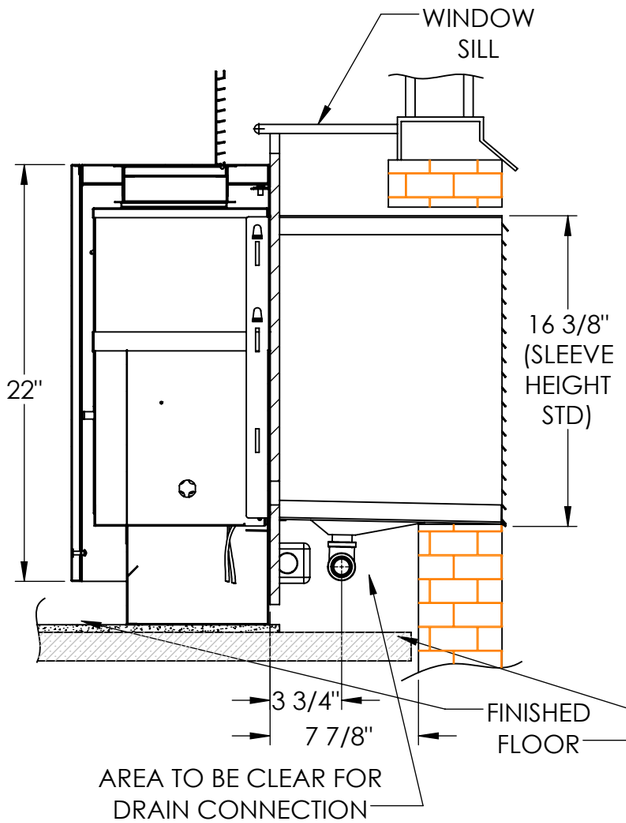
REVISIONS			
REV.	DESCRIPTION	BY	DATE
01	DRAIN PIPE POSITION CHANGED		10/11/2022



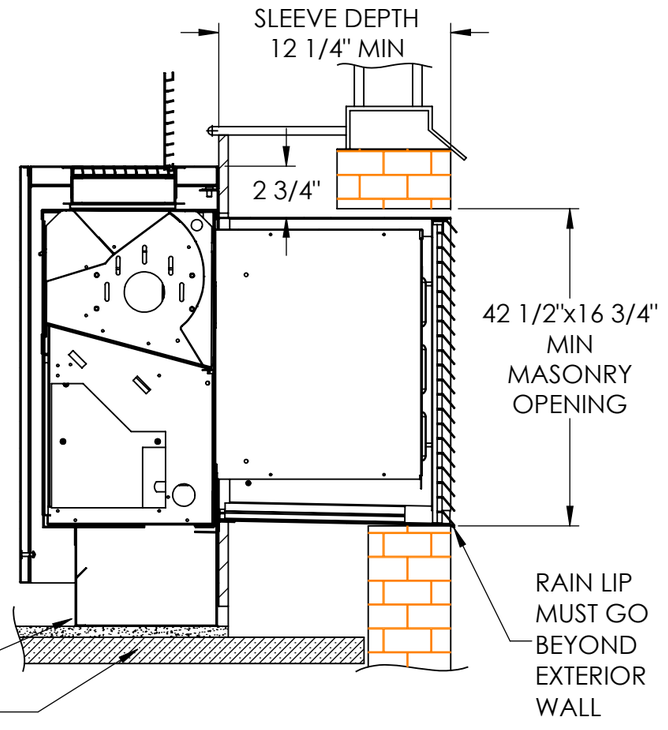
ISOMETRIC VIEW



FRONT VIEW



SECTION B-B
SCALE 1 : 8



SECTION A-A
SCALE 1 : 8

NOTES.
1. PROVIDED LOUVER WILL HAVE MINIMUM OF 60% FREE AIR.
2. 2 1/2" ABOVE TOP OF SLEEVE ON ROOMSIDE MUST BE KEPT CLEAR FOR MOUNTING OF ENCLOSURE.
3. WALL SLEEVE DIMENSION IS (16 3/8"Hx42"W).
4. ARCHITECT TO PROVIDE DETAILS FOR EACH FLOOR.

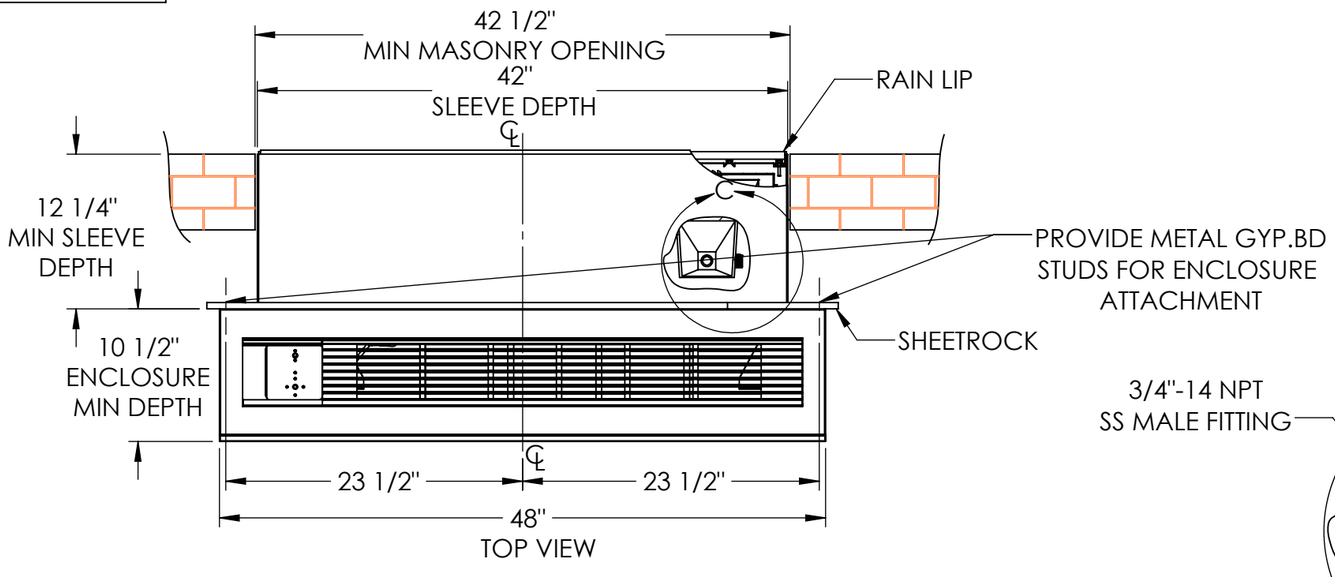
MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553
WEIGHT (LBS): 238.27	
FINISH: N/A	TITLE: RSXC MASONRY WALL SLEEVE UNIT MOUNTED T-STAT
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: VP — DATE 07/30/20 — DWG. NO. RSXC LAYOUT DRAWING BY: — DATE: SIZE B — SCALE: NONE DO NOT SCALE DRAWING — SHEET 1 OF 2 — REV 01

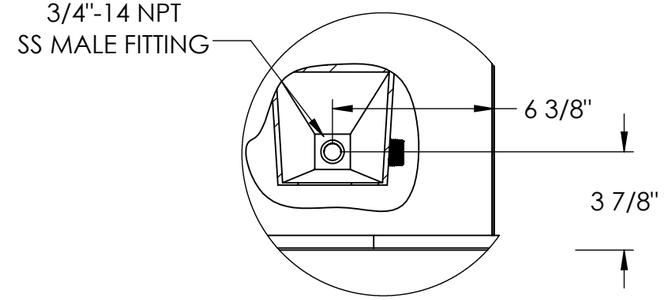
Third Angle Projection

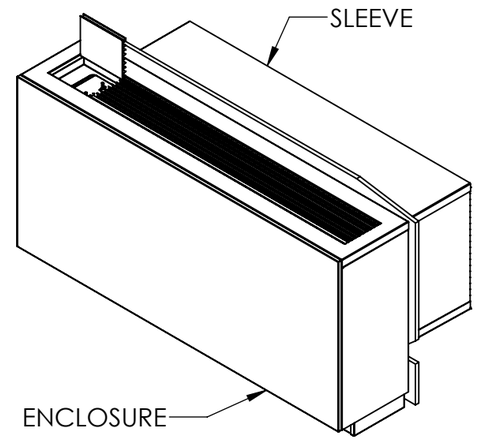
8 7 6 5 4 3 2 1

RSXC LAYOUT

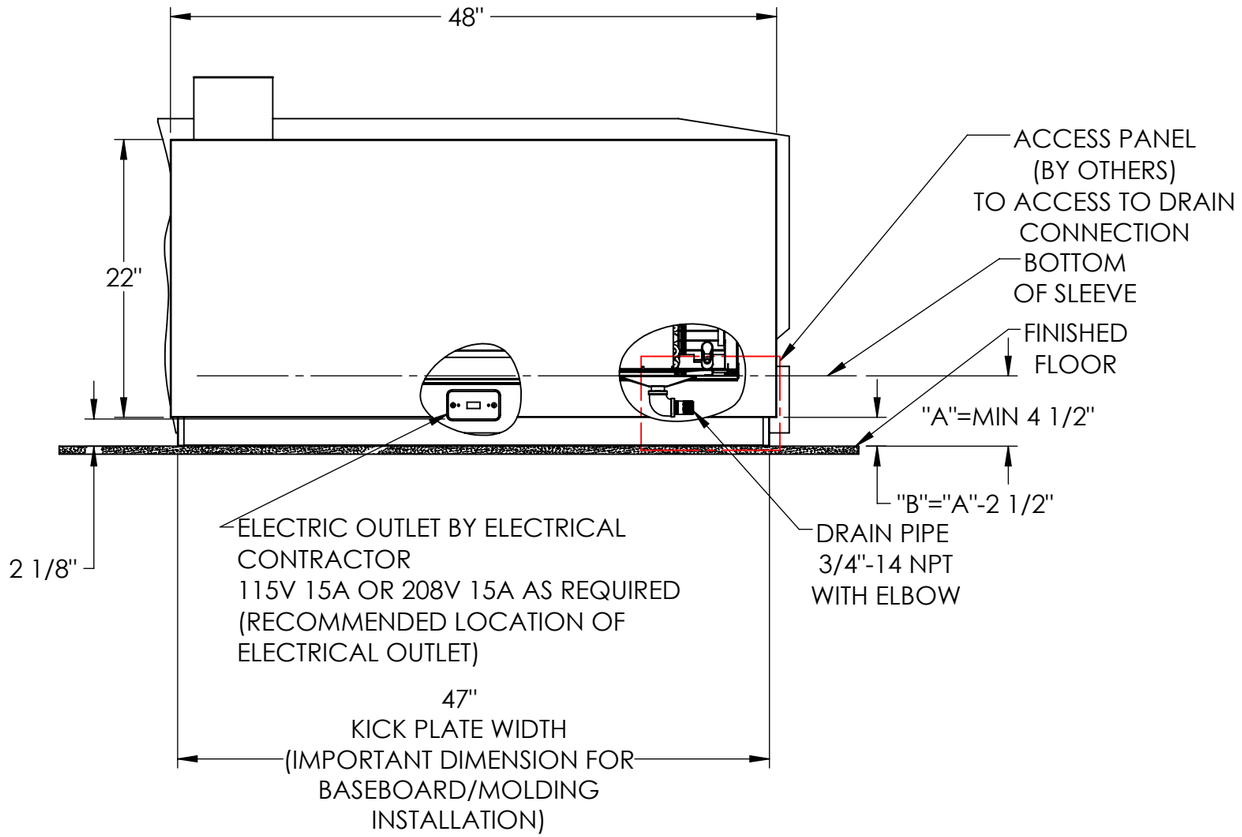
REVISIONS			
REV.	DESCRIPTION	BY	DATE
01	DRAIN PIPE POSITION CHANGED		10/11/2022







ISOMETRIC VIEW



FRONT VIEW

DETAIL C
SCALE 1 : 6

INSTALL THE ELECTRICAL OUTLET WHERE THE END-USERCAN EASILY CONNECT/DISCONNECT THE POWER CORD PLUG.

NOTES.
1. DETAILS TO BE PROVIDED BY GC FOR EACH FLOOR.
2. LOUVER MUST HAVE AN AREA OF MINIMUM 60% FREE AIR FLOW.
3. DETAILS TO BE PROVIDED FOR EACH FLOOR:
   - "A" IS BOTTOM OF SLEEVE TO FINISHED FLOOR
   - "B" IS KICK PLATE HEIGHT WITH +/- 1" ADJUSTABLE
   - "B" = "A" - 2 1/2"

Third Angle Projection

MATERIAL:

WEIGHT (LBS): 238.27

FINISH: N/A

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 1/32
ANGULAR: MACH ± ° BEND ± 1°
TWO PLACE DECIMAL ± .03
THREE PLACE DECIMAL ± .015

ICE-AIR LLC.
80 HARTFORD AVENUE
MOUNT VERNON, NY 10553

TITLE: RSXC MASONRY WALL SLEEVE UNIT MOUNTED T-STAT

MODEL BY: VP | DATE 07/30/20 | DWG. NO. RSXC LAYOUT

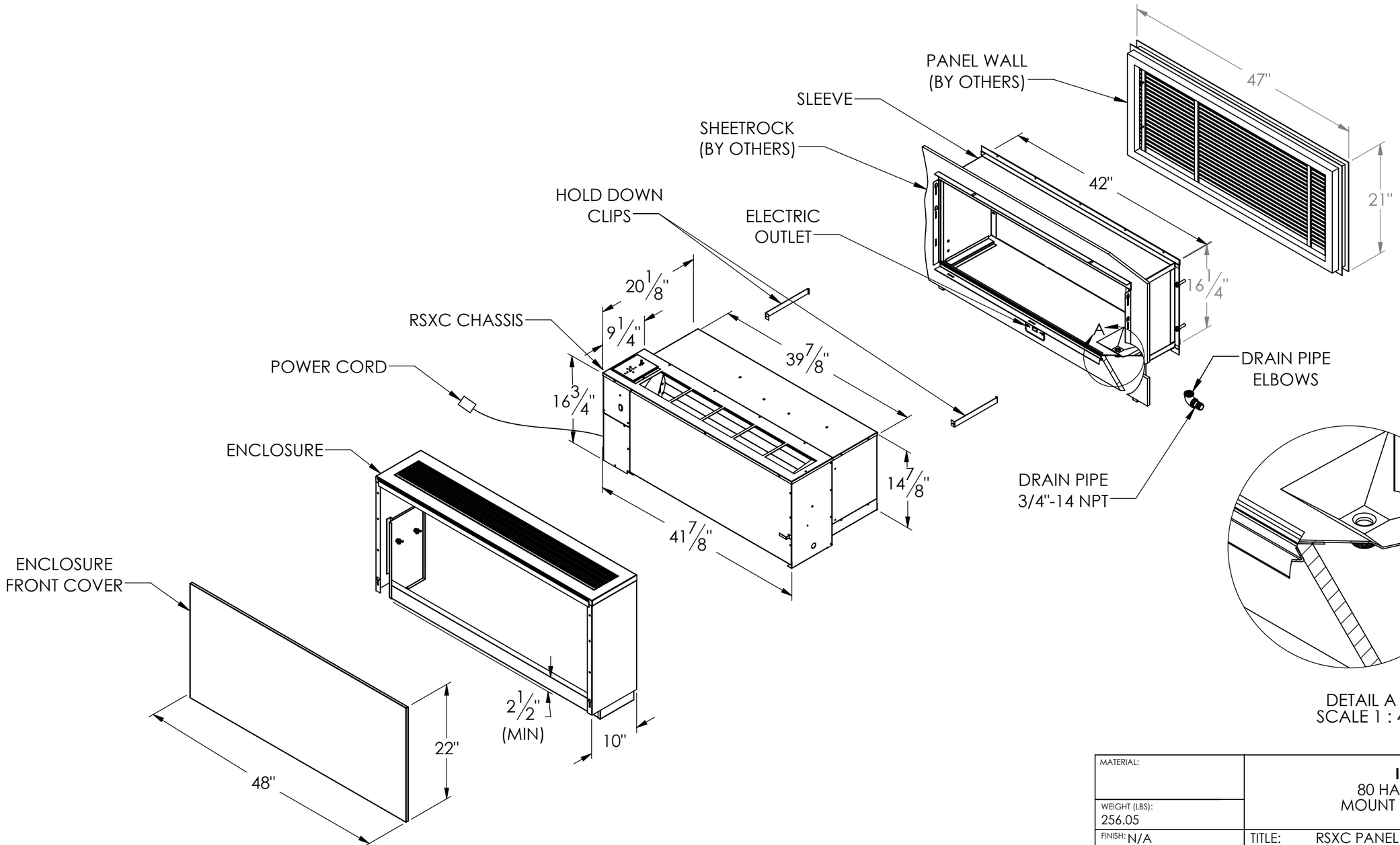
DRAWING BY: | DATE:

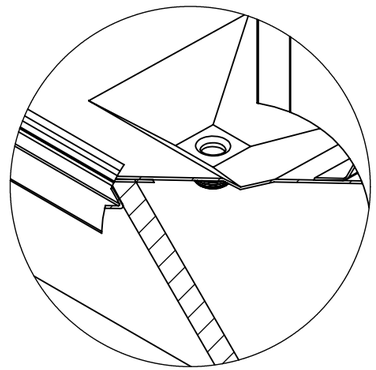
SIZE B | SCALE: NONE DO NOT SCALE DRAWING | SHEET 2 OF 2 | REV 01

8 7 6 5 4 3 2 1

RSXC LAYOUT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
01	DRAIN PIPE POSITION CHANGED		10/13/2022
02	STD ENCL. HEIGHT CHANGED		2/10/2023





DETAIL A
SCALE 1 : 4

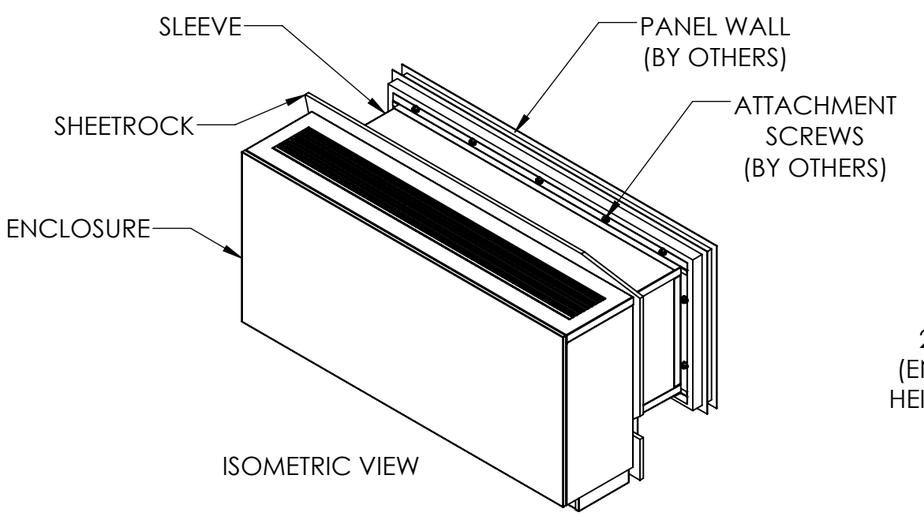
MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553		
WEIGHT (LBS): 256.05			
FINISH: N/A	TITLE: RSXC PANEL WALL SLEEVE, CONTINUOUS DISCHARGE GRILLE		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: VP	DATE 08/31/21	DWG. NO. RSXC LAYOUT
	DRAWING BY:	DATE:	
	SIZE B	SCALE: NONE DO NOT SCALE DRAWING	SHEET 1 OF 1 / REV 01

Third Angle Projection

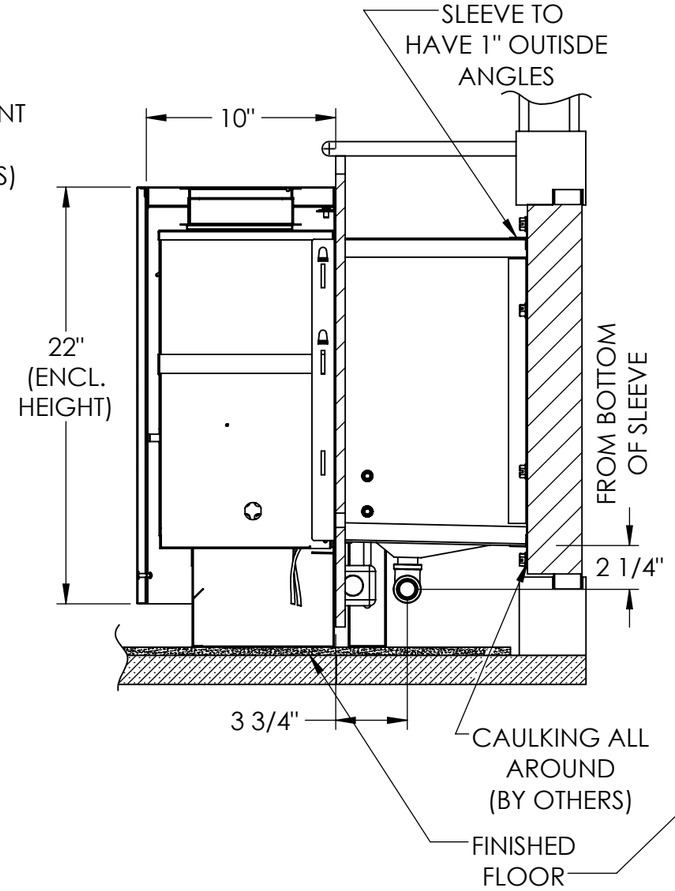
8 7 6 5 4 3 2 1

RSXC LAYOUT

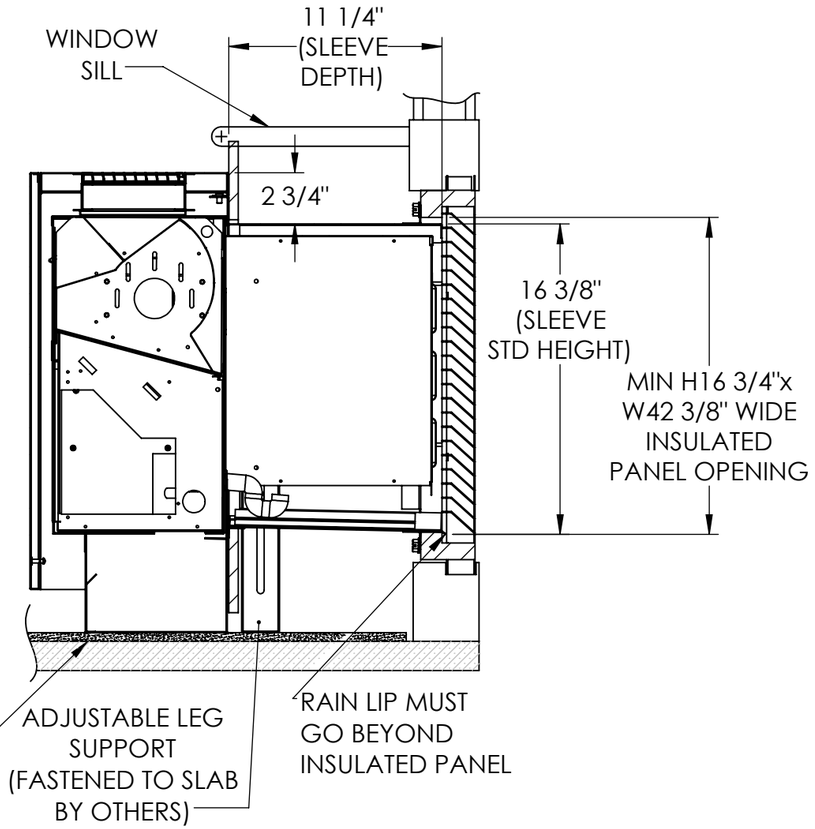
REVISIONS			
REV.	DESCRIPTION	BY	DATE
01	STD ENCL. HEIGHT CHANGED		2/16/2023



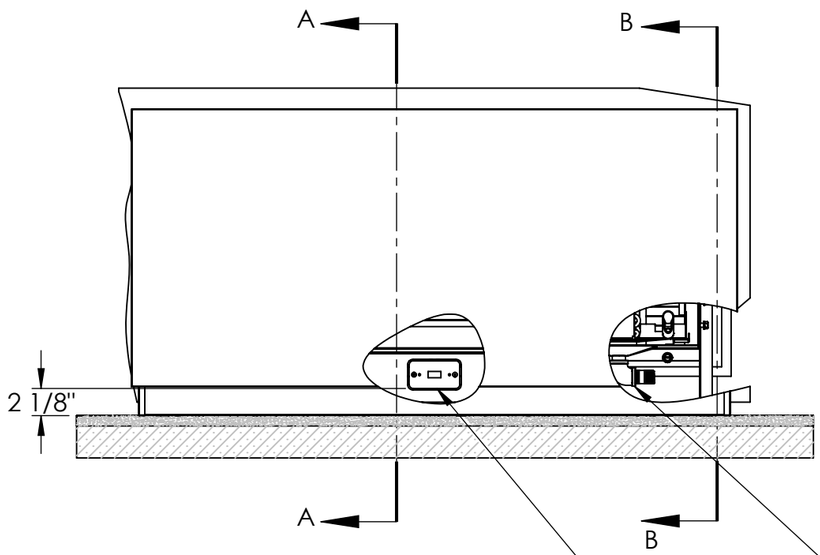
ISOMETRIC VIEW



SECTION B-B
SCALE 1 : 8



SECTION A-A
SCALE 1 : 8



FRONT VIEW

NOTES.
1. PROVIDED LOUVER WILL HAVE MINIMUM OF 60% FREE AIR.
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3. WALL SLEEVE DIMENSION IS (16 3/8"Hx42"W).
4. ARCHITECT TO PROVIDE DETAILS FOR EACH FLOOR.

Third Angle Projection

MATERIAL:

WEIGHT (LBS): 256.05

FINISH: N/A

UNLESS OTHERWISE SPECIFIED:
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TWO PLACE DECIMAL ± .03
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ICE-AIR LLC.
80 HARTFORD AVENUE
MOUNT VERNON, NY 10553

TITLE: RSXC PANEL WALL SLEEVE, CONTINUOUS DISCHARGE GRILLE

MODEL BY: VP | DATE 08/31/21 | DWG. NO. RSXC LAYOUT

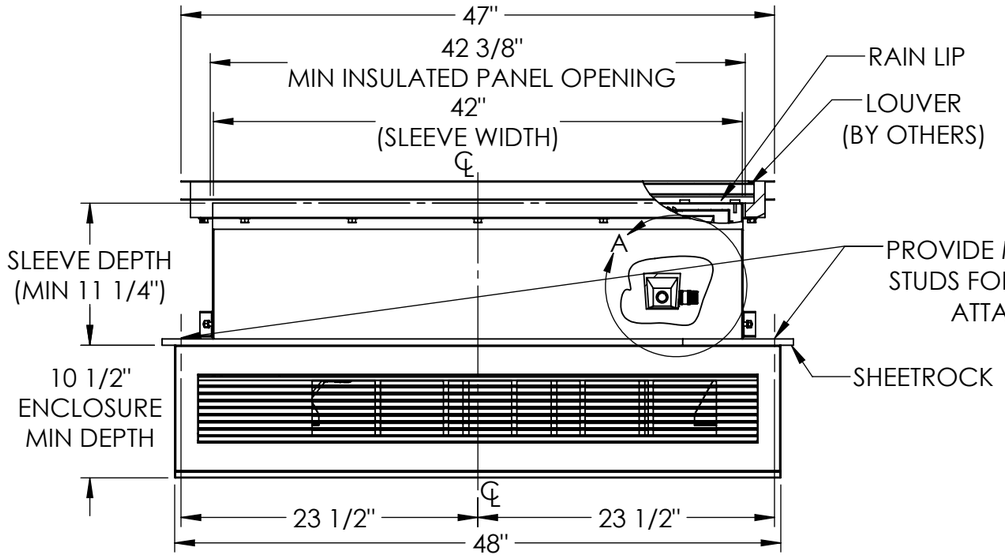
DRAWING BY: | DATE:

SIZE B | SCALE: NONE DO NOT SCALE DRAWING | SHEET 1 OF 2 | REV 01

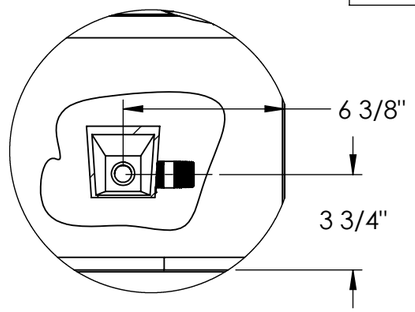
8 7 6 5 4 3 2 1

RSXC LAYOUT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
01	STD ENCL. HEIGHT CHANGED		2/16/2023

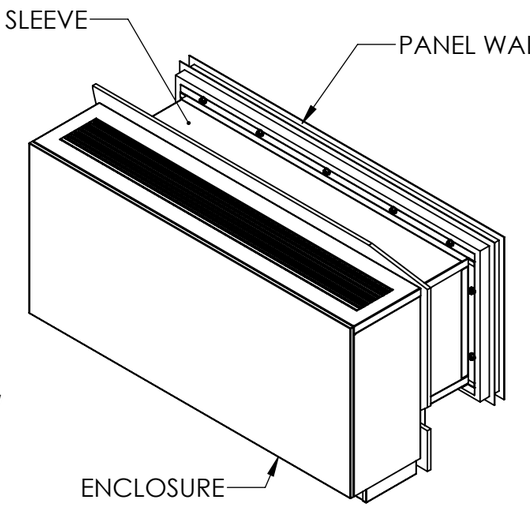


TOP VIEW

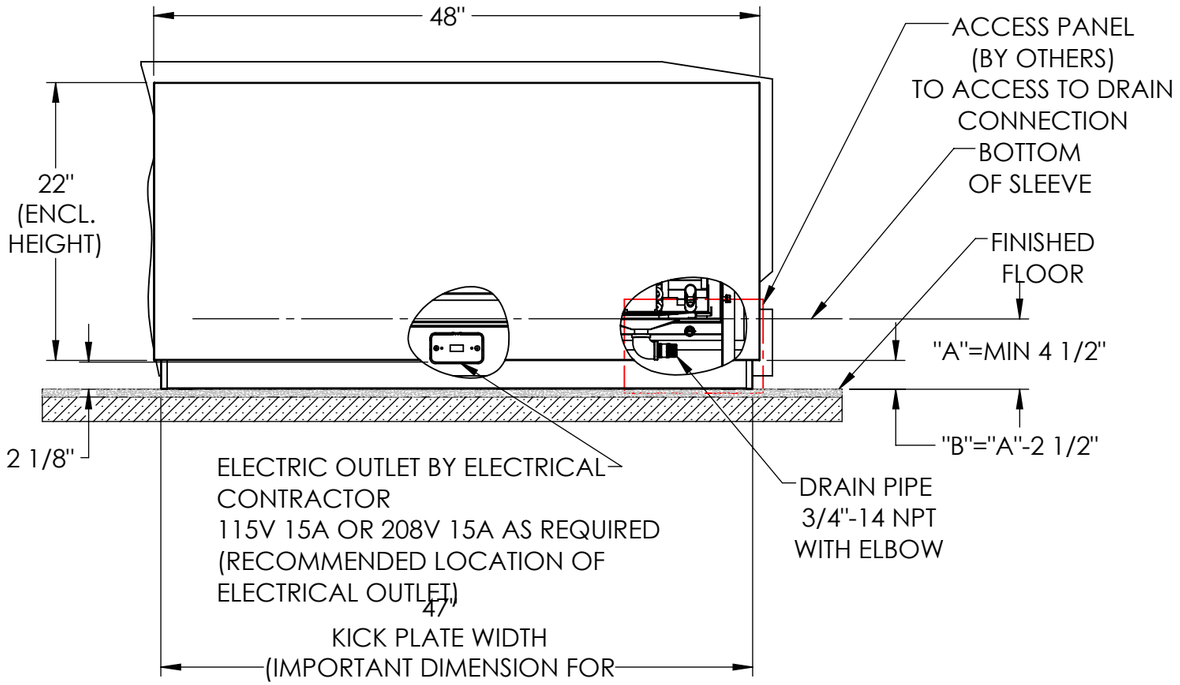


DETAIL A
SCALE 1 : 6

INSTALL THE ELECTRICAL OUTLET WHERE THE END-USERCAN EASILY CONNECT/DISCONNECT THE POWER CORD PLUG.



ISOMETRIC VIEW



FRONT VIEW

NOTES.
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3. DETAILS TO BE PROVIDED FOR EACH FLOOR:
   - "A" IS BOTTOM OF SLEEVE TO FINISHED FLOOR
   - "B" IS KICK PLATE HEIGHT WITH +/- 1" ADJUSTABLE
   - "B" = "A" - 2 1/2"

Third Angle Projection

MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553
WEIGHT (LBS): 256.05	
FINISH: N/A	TITLE: RSXC PANEL WALL SLEEVE, CONTINUOUS DISCHARGE GRILLE
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: VP DATE 08/31/21 DWG. NO. RSXC LAYOUT DRAWING BY: DATE:
SIZE B	SCALE: NONE DO NOT SCALE DRAWING — SHEET 2 OF 2 — REV 01

8 7 6 5 4 3 2 1

PRODUCT SPECIFICATIONS
PACKAGED TERMINAL HEAT PUMP (PTHP)

ICE AIR HI SPEC™ UNITS
'RSXC' SERIES UNITS

1. Equipment: Provide "RSXC" Series Packaged Terminal Heat Pumps (PTHPs), as manufactured by Ice Air, LLC. "RSXC" Series are the only PTHPs to be certified by ETL, AHRI, and NEEP's Cold Climate Air Source Heat Pump programs.

2. Components: Heat pump to consist of wall sleeve, exterior louver, heat pump/cooling chassis and room enclosure. Units to operate at 208 / 230 volt, single phase, 60 hertz circuits.

3. Wall Sleeves: Wall sleeve exterior dimensions to be 42" wide x 16" high (RSXC Series), to comply with US DOE requirements for new construction PTACs. Smaller dimension wall sleeves are not acceptable under DOE regulations. Wall sleeve to be fabricated of 18-gauge galvanized steel and to be shipped with a mechanically attached temporary cardboard filler panel at the exterior for weather protection. Cardboard filler panel to be removed prior to chassis and louver installation. Wall sleeve to have built-in pitch of at least ¼" and to be fabricated with an angled rain lip for proper drainage to the exterior of the building. Wall sleeve to include one ¾"-14 NPT Male Fitting for interior condensate line attachment. Wall sleeves for masonry locations to be factory fabricated to match the full wall depth at each location; wall sleeves with field-installed extension pieces are not acceptable.

4. Louvers: Exterior louver to be horizontal, extruded aluminum blade-type construction with clear anodized or painted Duranar finish (color must be specified). Louver to be supplied with stainless steel fastening hardware and must be capable of being installed from within the wall sleeve. Louvers at panel wall locations to be supplied by others. Louvers by others to have minimum 60% free area and to be approved by PTHP manufacturer.

5. Chassis: Chassis to be a self-contained, slide-in assembly consisting of a sealed refrigerant system, evaporator and condenser sections with separate Permanent Split Capacitor (PSC) motors (single motor units are not acceptable), unit mounted controls and line cord.

6. An optional Passive House option is offered, Passive House assembly must test and comply with Passive House pressure test standards.

6.1. Chassis sheet metal parts to be manufactured entirely of 18 gauge and 20-gauge galvanized steel. Chassis base pan to be powder coated inside and out to prevent corrosion of sheet metal pan. Chassis to be manufactured with an outsized indoor section that mates with the wall sleeve interior flanges and creates a positive weather seal using neoprene gasketing, thereby preventing air and water infiltration. Chassis seal must be an integral part of unit construction and use of attached sealing angles or channels is not acceptable.

6.2. Refrigeration System: Sealed refrigerant system to consist of an enhanced vapor injection (EVI) variable speed compressor, copper tube / aluminum fin evaporator and condenser coils, refrigeration metering device consisting of Electronic Expansion Valve (EEV) and a capillary tube expansion system and interconnecting tubing. System to be factory charged and sealed and capable of operating in the cooling mode to an outdoor ambient temperature of 38°F. All units to be manufactured with R32 refrigerant.

6.3. Heat Pump System: Heat Pump operation using reversing valve to be factory charged and sealed and laboratory tested for heating operation down to ambient temperatures of -5°F (with theoretical heating operation down to -20°F*).* All units to be manufactured with R32 refrigerant. (Optional Back up electric heat available).

6.4. Evaporator Section: Evaporator motor and tangential blower wheel to be mounted above the evaporator coil. Tangential blower wheel to be directly driven by a multi-speed PSC motor with built-in thermal overload protector. Evaporator section to contain an integral stamped and powder coated steel drain pan, draining into a 3/4” i.d. drain hose. Evaporator coil to be aluminum fin, copper tube, rated up to 350 -psig pressure.

6.4.1. Evaporator Condensate Disposal: Condensate to drain from the indoor base pan into the exterior galvanized steel condenser base pan through a 3/4” i.d. drain hose. Condensate to be drained into the interior section of wall sleeve and connected to a building drain.

6.5. Condenser Section: Condenser section to contain a separate PSC motor and plastic or metal propeller fan with an integral slinger ring. Condenser motor to cycle with EVI compressor and to run during the cooling and heating cycle. Condenser coil to be aluminum fin, copper tube, rated up to 350-psig pressure.

6.5.1. Condenser Frost Disposal: The condenser coil section shall be provided with a drain pan with integral resistance heater. Condensate from the defrost cycle shall be drained into the interior section of wall sleeve and connected to a building drain. The integral condenser drain pan heater shall operate during the defrost cycle only. Wall Sleeve drain connection is 3/4" MNPT.

6.6. Unit Controls: Unit controls to include a digital controller with integral electronic thermostat. Provide enclosure mounted seven-day programmable thermostat. Both Interior room and outdoor temperature sensors to be mounted on the evaporator coil and condenser coil to provide true temperature readings for antifreeze and defrost purposes.

6.7. Outside Air Damper: Provide motorized outside air damper. The fresh air intake damper to cycle (open) whenever the evaporator fan is energized. This allows fresh outside air the entire space at the factory set rate of the required amount of cubic feet per minute. the damper is located on the firewall that separates the evaporator and condenser sectors.

7. Room Enclosure (Cabinet): Room enclosure to be flat top type and to be fabricated of 18-gauge galvanneal paint grip furniture steel. Enclosure front cover to be fabricated from 20-gauge galvanneal steel. Enclosure to be finished in (Antique White) (Arctic White) baked powder coat finish. Room enclosure to rest on the wall sleeve and fasten to the wall using the concealed flanges with clearance holes. Enclosure kick plate to be vertically adjustable.

8. Warranty and Code Compliance: Unit to be guaranteed free of defects in material and workmanship for one year from date of delivery. Units to be ETL listed for safety in the United States and Canada, to have New York City MEA and BEC approvals, to be in compliance with all local, state and federal energy efficiency and building codes and to be tested in accordance with current AHRI standards. Unit must be AHRI certified and NEEP certified under the Cold Climate Air Source Heat Pump list.