DWG. NO.

REV. -

SUA-13738

WALL MOUNTED HEAT PUMP **CERTIFIED DRAWING**

PROJECT	DATE	4/30/2024	BY	ML		REVISIONS
PURCHASER	P.O. #				BY	DESCRIPTION
ARCHITECT						
ENGINEER	SHIP					
HVAC CONTR.	DATE					
GEN. CONTR.						

DESIGNATION	MODEL NUMBER	QTY
	8RSXC09-DH	
TOTAL		

UNIT SPECIFICATIONS+

SERIES MODEL #	8RSXC09-DH			
Cooling Capacity (Btu/hr) ¹	7,800			
Cooling Capacity Range (Btu/hr)	3,000 - 15,000			
SEER2 1	17.0			
Heating Capacity (Btu/hr) ²	8,000			
Heating Capacity Range (Btu/hr)	3,000 - 16,000			
HSPF2 ²	8.0			
Electric Heater (W)	1,000			
Electric Heater (A)	4.8			
Voltage	208			
Current in Cooling Operation (Amps)	3.4			
Power in Cooling Operation (Watts)	703			
Current in Heating Operation (Amps)	3.2			
Power in Heating Operation (Watts)	670			
MCA	13.5			
MOCP	15			
Airflow (CFM)	310			
Outside Air (CFM) ¹ (Optional)	40			
Weight (lbs)	84			
LOW AMBIENT PERFORMANCE				
HEATING CAPACITY @22F	6,600 + 3,400 Electric Heat			
COP @22F	2.44			
HEATING CAPACITY @13F	6,100 + 3,400 Electric Heat			
COP @13F	2.00			
HEATING CAPACITY @5F	5,600 + 3,400 Electric Heat			
COP @5F	1.79			

SPECIFICATION NOTES:

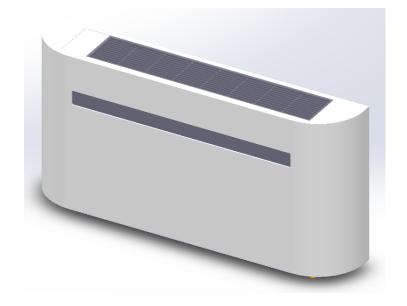
- 1. Performance data according to CAC AHRI 210/240 standard.
- 2. Rated performances in cooling mode @ 80F/67F DB/WB Indoors and 95F/75F DB/WB Ambient
- 3. Rated performances in heating mode @ 70F/60F DB/WB Indoors and 47F/43F DB/WB Ambient
- 4. Electric Heater to run with heat pump when temperature falls below 23°F.

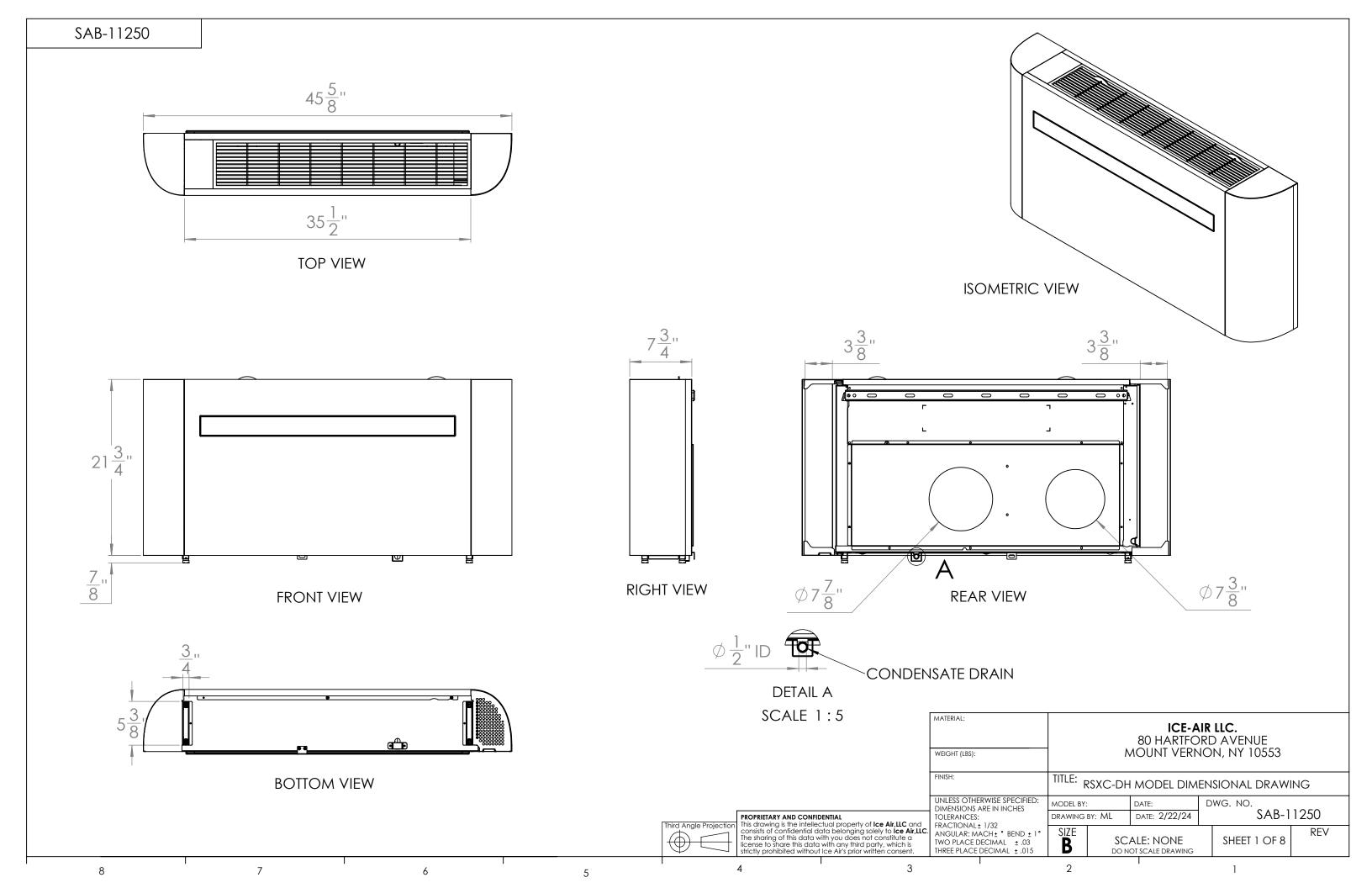
GENERAL NOTES:

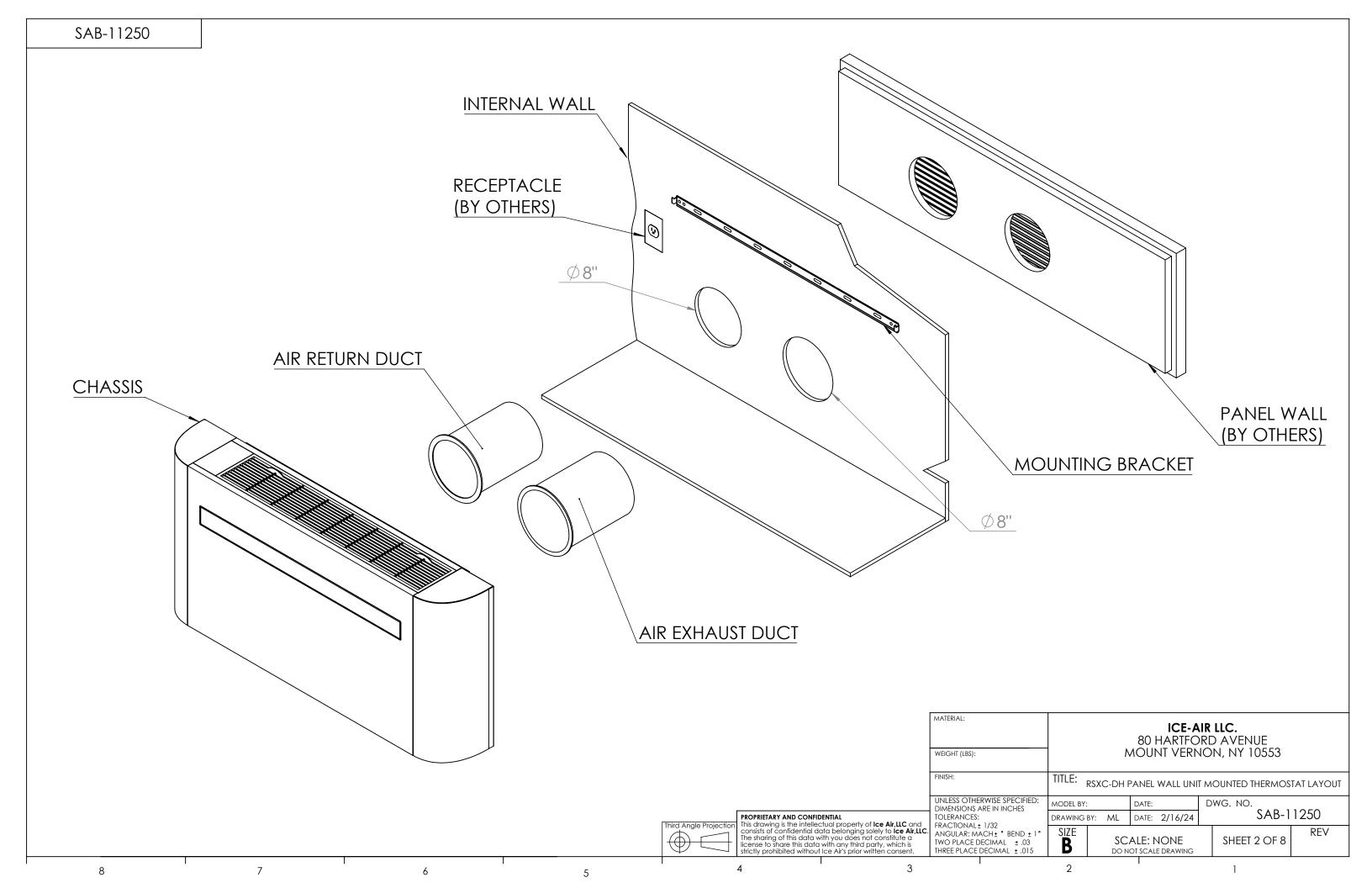
- For use as a complete assembly only.
 For replacement unit applications,
 consult Manufacturer.
 Provide washable filter.
 LCDI line cord.
 Provide mounting brackets and templates.
 Provide White enclosure color as standard.

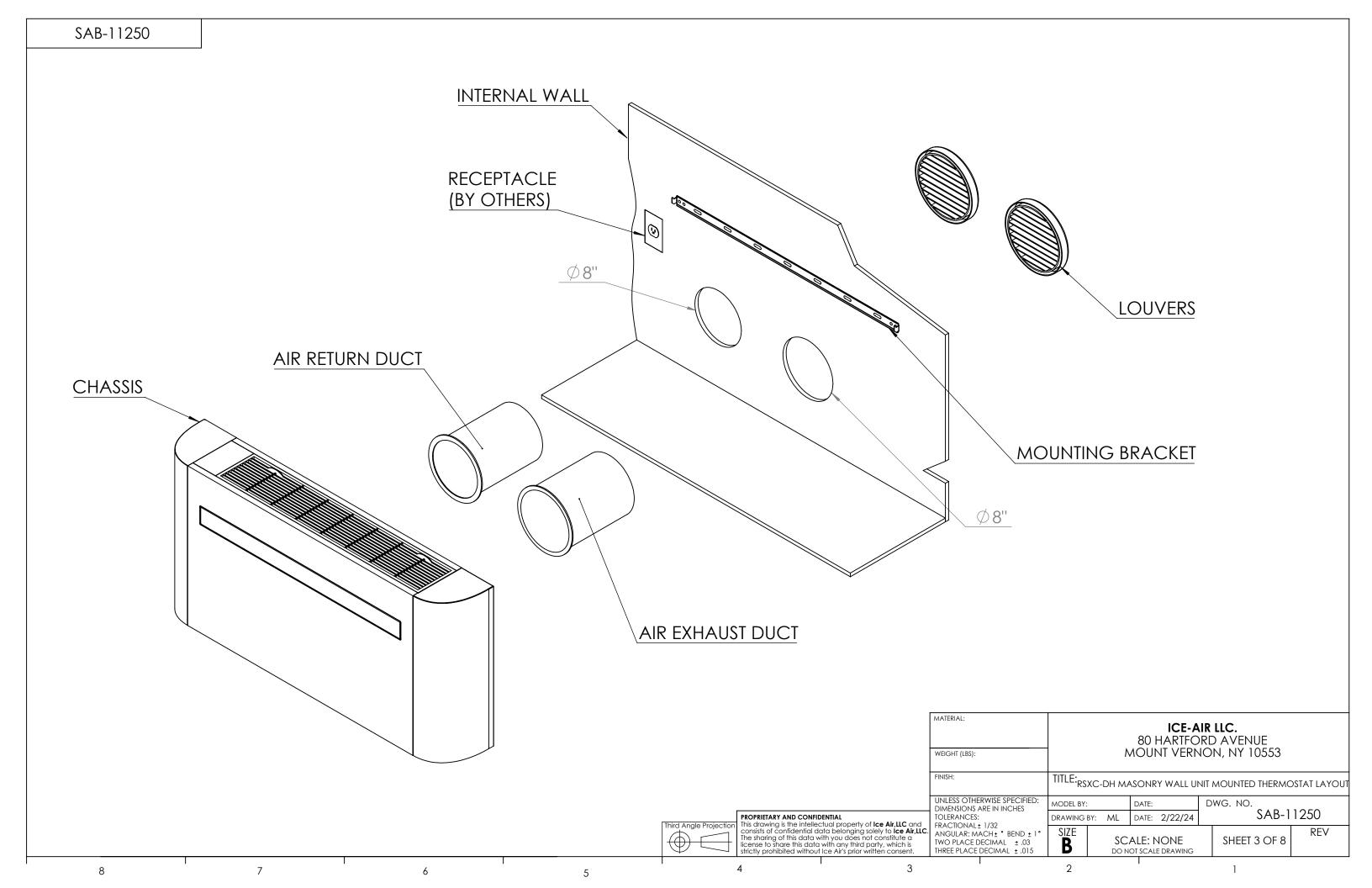
CUSTOM NOTES

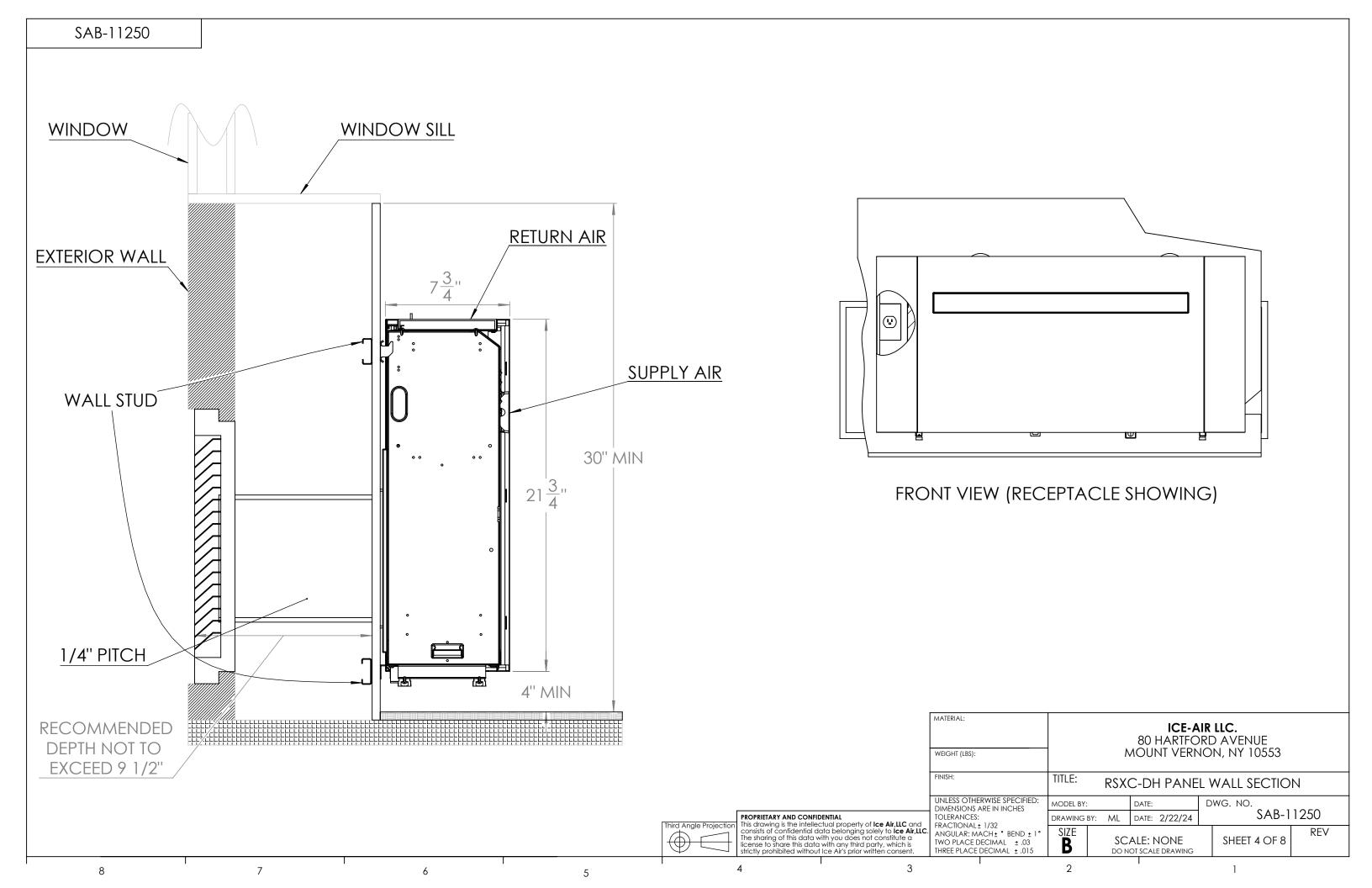
- Provide 2- Wall Ducts
 Provide 2- Circular Louvers
 Provide 1-Year Parts Only Warranty

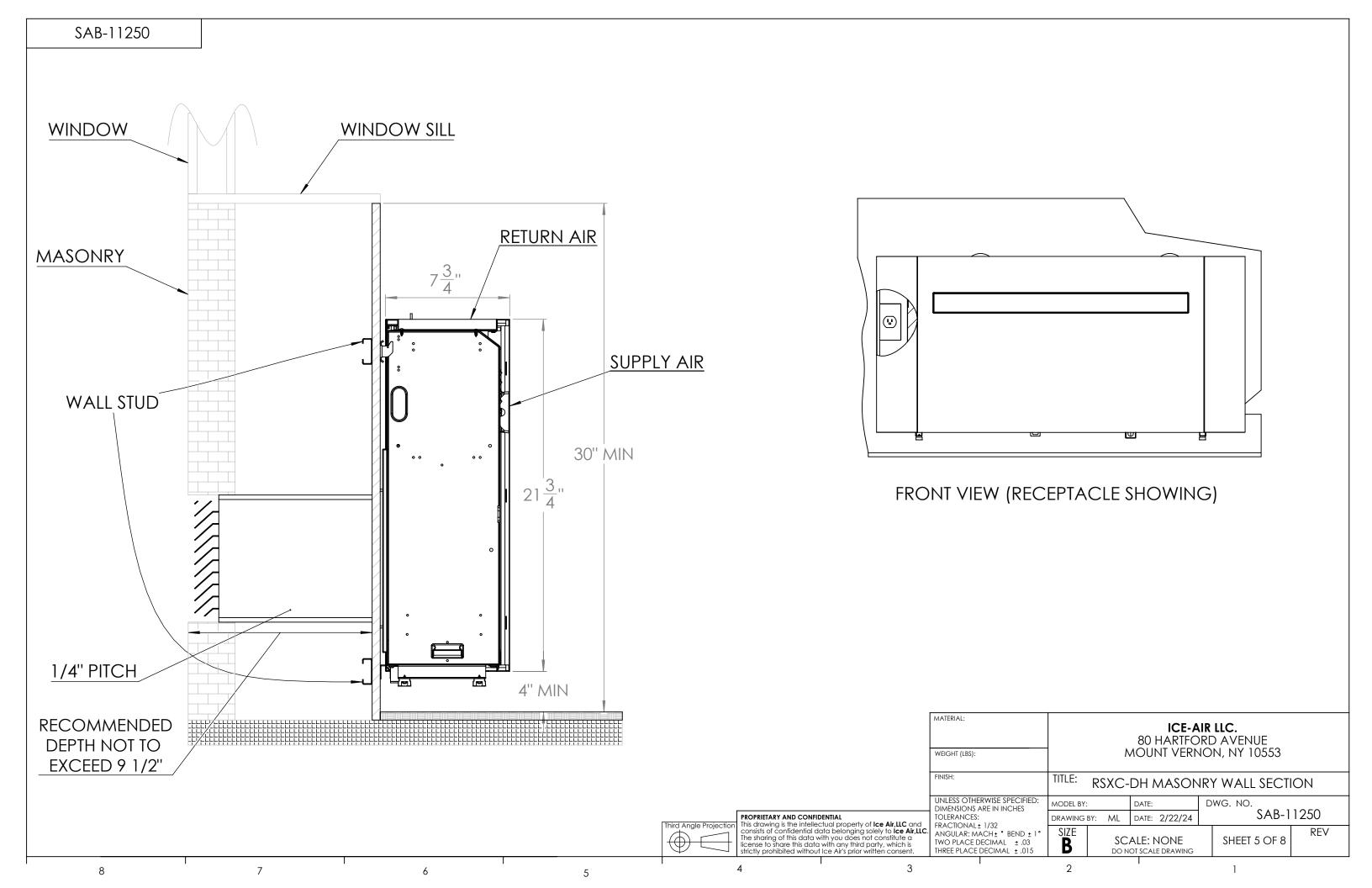


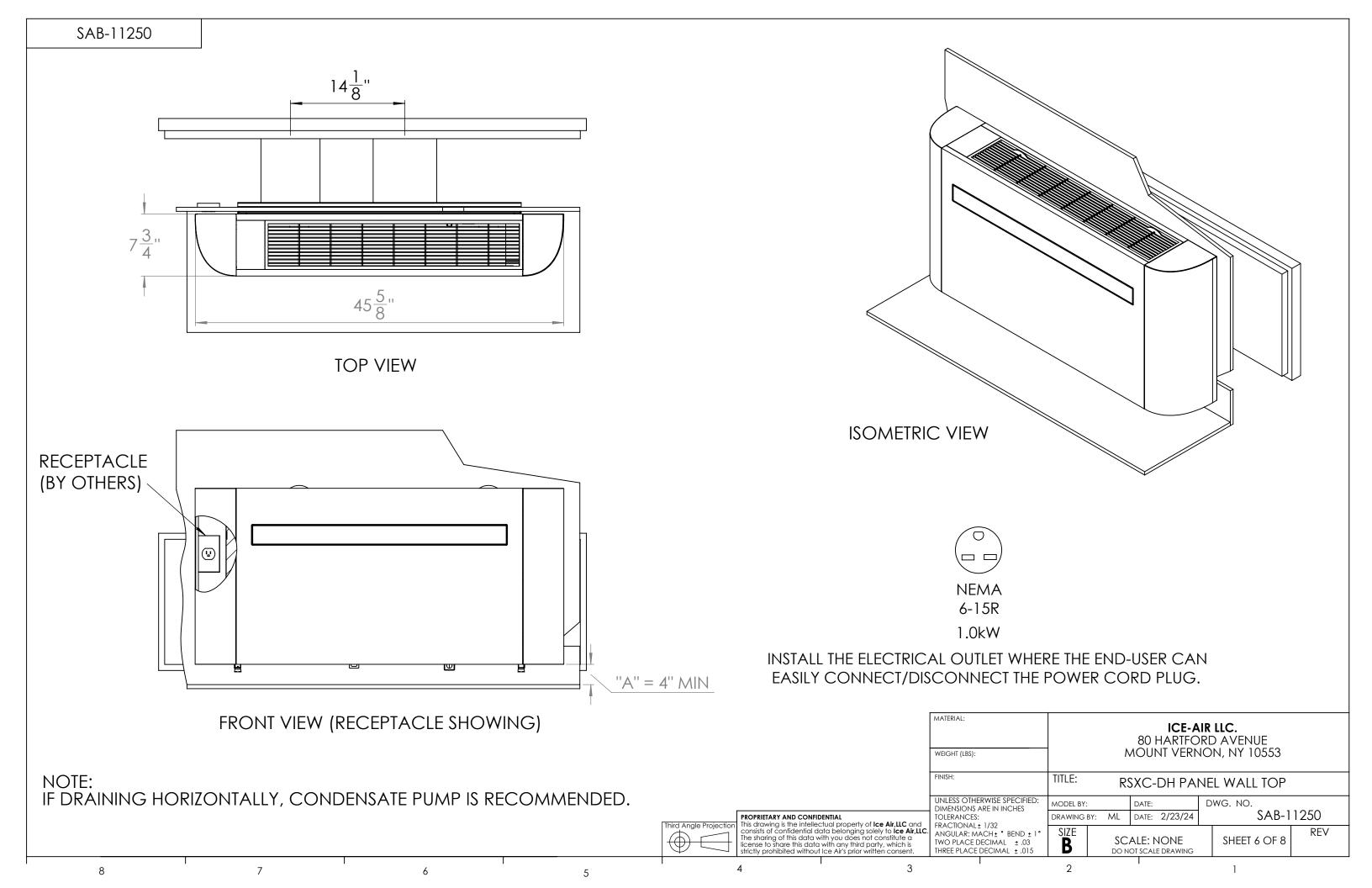


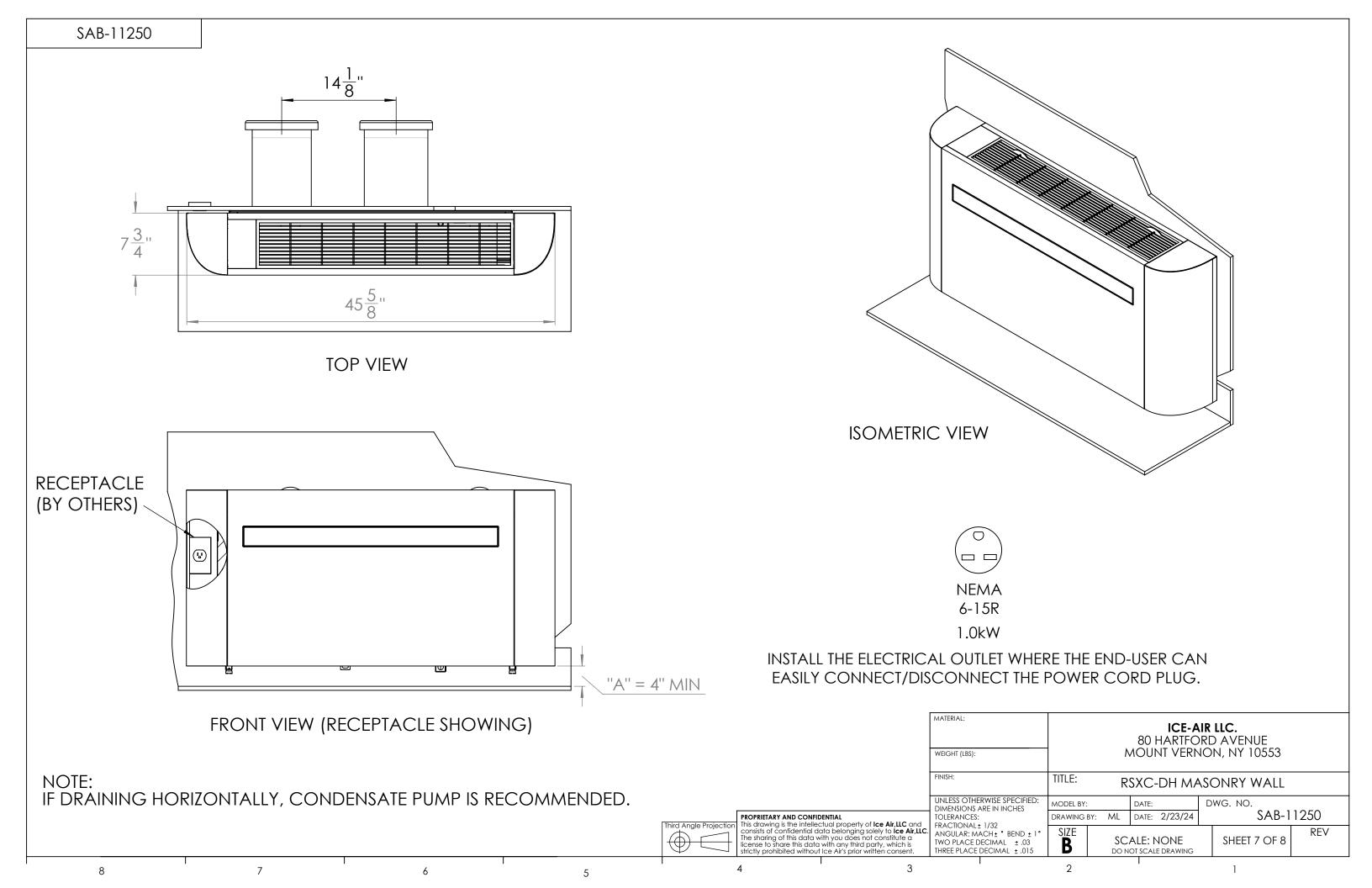


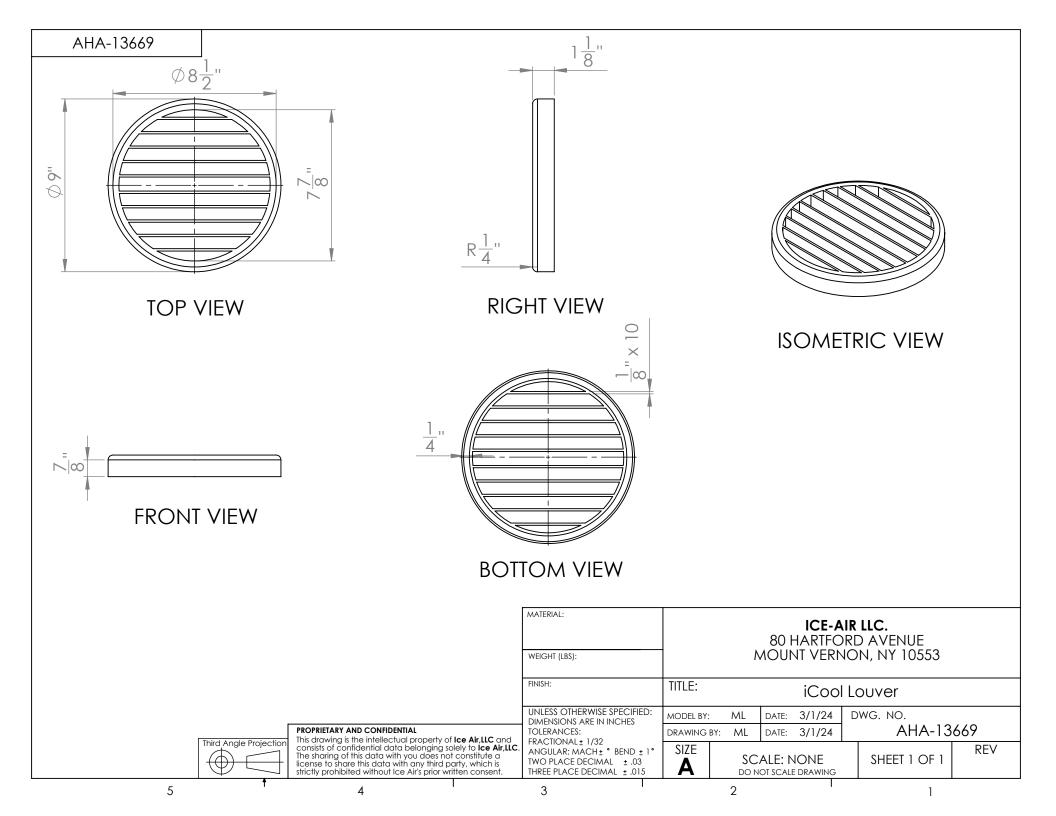


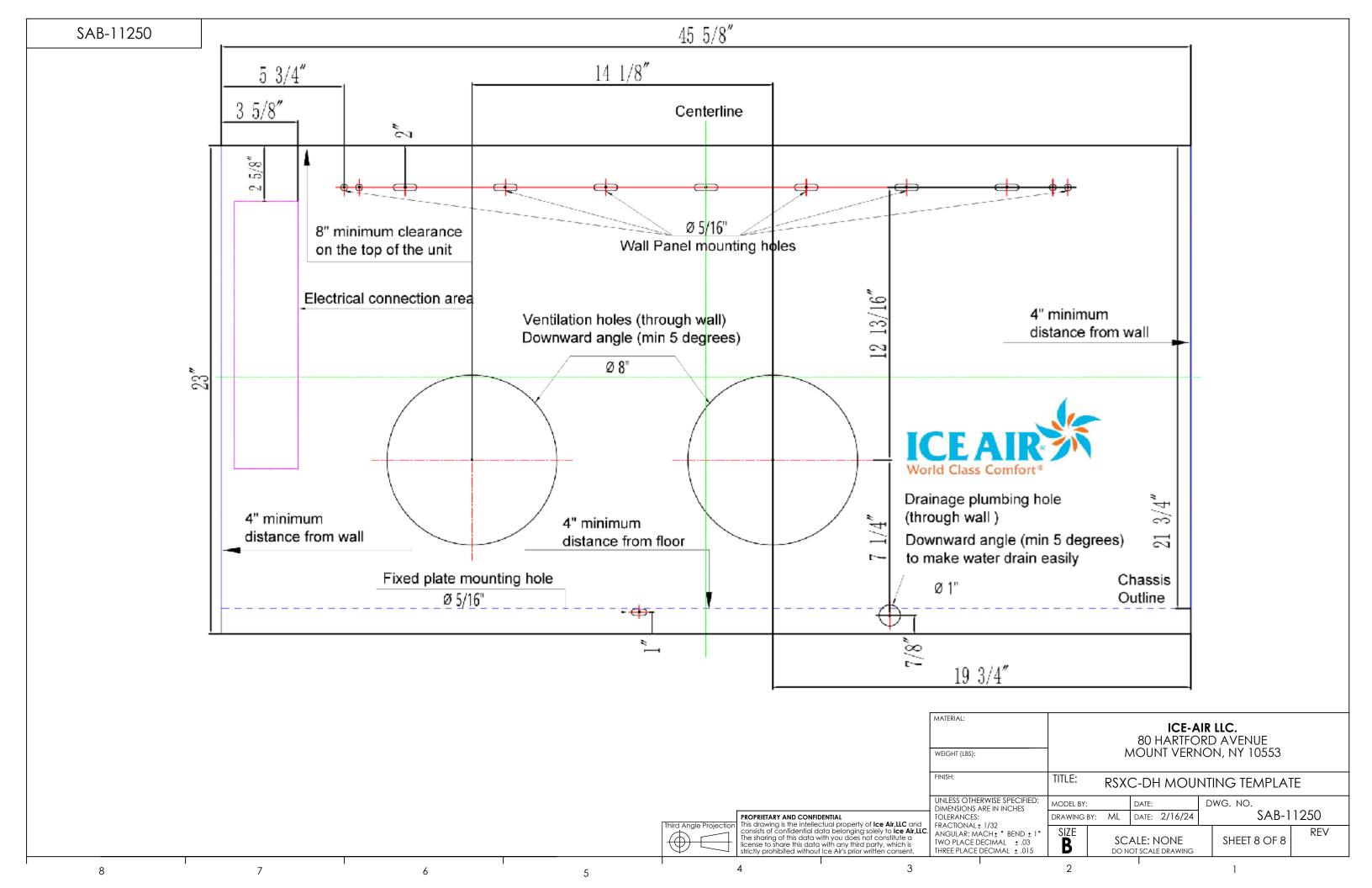






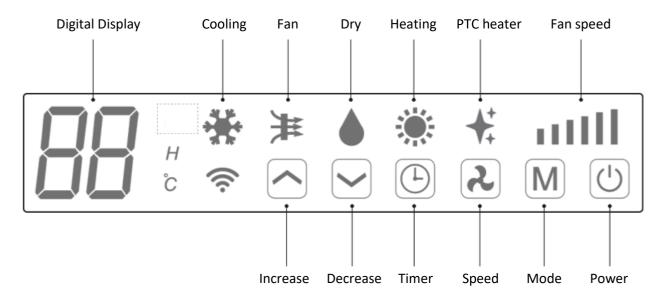






OPERATION

CONTROL PANEL



REMOTE CONTROL

The air conditioner can be controlled with the remote control. Two AAA-batteries are required. NOTE: Further details of the functions can be found on the following page.

	r	
POWER	Press the POWER button to turn the machine on or off.	
MODE	Press the MODE button to switch between cooling, heating, fan and dry modes.	lin. ¢ ½ **
FAN	Press the FAN button to change between high, medium and low fan speeds	# 8.8° # 8.8° # 8.8°
LED	Press the LED button to open or close the LED background light of unit, it can be a choice for sleep condition.	
	Press the UP button to increase the desired temperature or timer duration	POWER MODE
	Press the DOWN button to decrease the desired temperature or timer duration	FAN LED ▲ TEMP ▼
PTC	Press the PTC button to turn the PTC electric heater on or off. (only activated in heating mode)	PTC SILENT
SILENT	Press it for silent mode. In Silent mode, the fan will operate on low speed, reducing frequency and noise.	SWING TIMER
SWING	Press to turn the louver swing function on and off (only activated by the remote control & APP)	
TIMER	Press the TIMER button to set the automatic switch on/off.	

FUNCTIONS

POWER	Press "POWER" to turn the unit On or Off.			
	Press to change between the 4 different modes. The display will show the symbol for the mode currently selected.			
MODE	The Cooling function allows the air conditioner to cool the room and at the same time reduces air humidity. The desired temperature can be adjusted using the increase and decrease button between 61°F and 86°F. The fan speed can also be adjusted using the Speed button.			
	Dry mode will extract moisture from the air, which will be drained outside using the installed drain pipe. The fan speed cannot be adjusted in Dry mode.			
	FAN	In fan mode the appliance will recirculate the air within the room, and will not cool, heat or dehumidify. The fan speed can be adjusted using the Speed button, but the desired temperature can not be set.		
	HEATING	The heating function allows the air conditioner to heat the room. The desired temperature can be adjusted using the increase and decrease button between 61°F and 86°F. The fan speed can also be adjusted using the speed button.		
SL SILENT	4	Silent mode can be activated from APP or the remote control. It can also be activated by pressing " ""+" " on unit control panel at the same time. It will only operate in cooling or heating modes, the fan speed will change to low to reduce noise.		
FAN SPEED	attll	Press to change the fan speed between Low, Medium and High. The fan speed cannot be adjusted in Dry or Silent modes.		
	The air cond	ditioner contains a 24 hour timer, which can be used to either set a delayed start, or a set peration.		
TIMER	SHUTDOWN TIMER: While the unit is running press the timer button, the display will flash "0" 5 times. After the 5th flash, use the up and down buttons to adjust the duration in 1 hour increments between 1 to 24 hours. When the timer has elapsed, the unit will shutdown automatically.			
	With the ur flash, use t hours. After	TART TIMER: nit in standby, press the timer button, the display will flash "0" 5 times. After the 5th the up and down buttons to adjust the duration in 1 hour increments between 1 to 24 or the timer has elapsed, the unit will start up in the same mode with the same settings as sturned off.		
INCREASE AND DECREASE	Used within cooling and heating modes to adjust the desired temperature 61-86°F. Also used while setting the timer to adjust the duration.			
SWING MODE	After machine turns on, press the "SWING" button, louver will swing continuously up and down; by pressing the button again the movement will stop and the louver remain in that position. Swing mode can only be adjusted from the remote, and will initially be turned on by default. The louver will automatically close once machine is switched OFF.			
COMPRESSOR PROTECTION	There is a 3 minutes delay on power on. In order to protect the life of the compressor and electronic components please do not switch on the unit for at least 5 minutes after you turned the unit off.			



The unit has an additional PTC electric heating element. When the weather conditions outside are bad, you can press the PTC button on the remote control to turn on the electric heating function to increase the heat. The heat power of the PTC is equal to 1000W.

PTC turn on

- 1. Only in the heating mode, press the PTC button on the remote control to send the turn-on command to the unit. At this time, the remote control and the unit display \$\display\$ lights up at the same time.
- 2. After the unit receives the remote control command, the system will carry out self-testing, PTC will work when the following points are satisfied at the same time. Otherwise, PTC cannot work.:
 - a. Unit is in heating mode.
 - b. Tw<77°F (Outdoor temperature stays lower than 77°F for 10 seconds).
 - c. Ts-Tr≥9°F (The Set temperature is more than 9 degrees higher than the Room temperature).
 - d. Room temperature Tr≤64°F.
 - e. Coil temperature of evaporator Te ≤118°F.
 - f. Compressor stays on for 3 minutes.
 - g. Above data is collected from 20 seconds of continuous operation.
- 3. PTC will stop working when the system self-testing detects one of the following points:
 - a. Outdoor temperature keeps higher than 82°F for 10 seconds.
 - b. The room temperature is greater than the setpoint.
 - c. Room temperature Tr ≥73°F.
 - d. Compressor stop working.
 - e. The ventilation stops or the fan is faulty.
 - f. 4-way valve get disconnected.
 - g. Coil temperature of evaporator Te≥129°F or sensor error.
 - h. Unit didn't work in heating mode.
 - i. Unit is in defrost function.
- 4. In cold climate conditions (when outdoor temperature falls below 23°F), PTC will automatically turn on and run simultaneously with compressor.

PTC turn off

Presses the PTC button again or change to other mode to turn off PTC function, the $\ ^{\bigstar}$ lights on remote control and the unit display will be off at the same time.

NOTE:

- The unit will work without PTC function as a default until the "PTC" button on remote control is pressed (except in cold climate conditions, PTC will turn on automatically).
- If the unit is turned off, the PTC setting will be cleared and will need to be set again.

PRODUCT SPECIFICATIONS SINGLE PACKAGED HEAT PUMP (SPHP)

ICE AIR HI SPEC™ UNITS 'RSXC-DH' SERIES UNITS

- 1. <u>Equipment:</u> Provide "RSXC-DH" Series Single Packaged Heat pump (SPHP), as manufactured by Ice Air, LLC.
- 2. <u>Components</u>: Heat Pump to consist of air ducts, and heat pump/cooling chassis. Units to operate at 208 / 230 volt, single phase, 60 hertz circuits.
- 3. <u>Air Ducts:</u> Air Ducts exterior dimensions to be 8" diameter. Air ducts to be fabricated of metal ducting sheet. Air Ducts to be installed with a pitch of at least ¼" and to be fabricated. Air ducts through the wall to be protruding an 1/8" to ensure a tight seal to the chassis' EPDM insulation. The depth of the wall shall not exceed 9.5".
- 4. <u>Louvers:</u> Louvers at panel wall locations to be supplied by others. Louvers by others to have minimum 80% free area and to be approved by manufacturer, Ice Air.
- 5. <u>Heat Pump:</u> Heat Pump to be a self-contained consisting of a sealed refrigerant system, evaporator section with separate brushless direct current (BLDC) motor, and condenser section with separate brushless direct current (BLDC) motor (single motor units are not acceptable), unit mounted controls and line cord.
- 5.1. Heat Pump 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.
- 5.2. <u>Refrigeration System:</u> Sealed refrigerant system to consist of a variable speed compressor, copper tube / aluminum fin evaporator and condenser coils, refrigeration metering device consisting of Electronic Expansion Valve (EEV) and interconnecting tubing. System to be factory charged and sealed. All units to be manufactured with R410A refrigerant.
- 5.3. Heat Pump System: Heat Pump operation using reversing valve to be factory charged and sealed. All units to be manufactured with R410A refrigerant. Supplemental 1.0 kW electric heater to be provided with the unit. The electric heater will energize when outdoor ambient temperature drops below 23°F and will run simultaneously with the heat pump system.

- 5.4. Evaporator Section: Evaporator motor and tangential blower wheel to be mounted below the evaporator coil. Tangential blower wheel to be directly driven by BLDC motor. Evaporator section to contain a drain pan, draining into a 1/2" i.d. drain hose to the condenser drain pan. Evaporator coil to be aluminum fin, copper tube, rated up to 350 -psig pressure.
- 5.4.1. Evaporator Condensate Disposal: Condensate to drain from the indoor base pan into the outdoor side drain connection on the condenser base pan through a 1/2" i.d. drain hose. Condensate to be drained into the connected building drain.
- 5.5. <u>Condenser Section:</u> Condenser section to contain a separate brushless direct current (BLDC) motor and plastic blower wheel. Condenser motor to cycle with compressor and to run during the cooling and heating cycle. Condenser coil to be aluminum fin, copper tube, rated up to 350-psig pressure.
- 5.5.1. <u>Condenser Frost Disposal</u>: 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 connected building drain. Drain to be connection is 1/2" ID hose.
- 5.6. <u>Unit Controls:</u> Unit controls to include a unit mounted control panel and a remote control for wireless control. Unit will be supplied with 7-day programmable thermostat.
- 5.7. <u>Electric Heating Element</u>: The electric heater works in conjunction with the heat pump as supplemental heating. The electric heater will automatically energize when the outdoor ambient temperature falls below 23°F or can be manually toggled on. To manually toggle the PTC heating element, the button on the control panel of the unit or on the wireless remote control can be pressed.
- 5.8. <u>Manual Outside Air (Optional):</u> Provide manual outside air damper with chassis mounted actuator. (Optional motorized damper available).
- 6. <u>Heat Pump Cabinet:</u> Heat pump cabinet to be flat top type and to be fabricated of galvanneal paint grip furniture steel. Cabinet front cover to be fabricated from galvanneal steel. Cabinet to be finished in (Arctic White) baked powder coat finish.

7. 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.