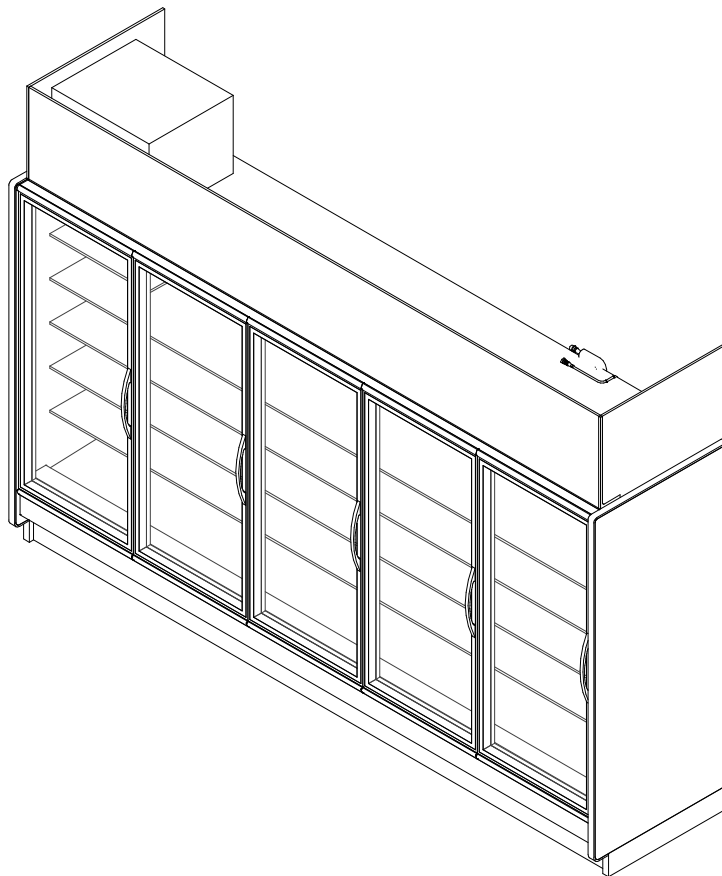


**GENERAL NOTES:**

- Lighting Controls and Anti Sweat Heat Controls are Required
  - Option 1: OEM Provided: Occupancy Sensor Based Lighting Controls (On/Off) & Hillphoenix provided embedded Anti Sweat Controls are standard, unless otherwise specified
  - Option 2: End User Provided: Lighting Controls should be Occupancy Sensor Based or on a minimum 8 Hour Off Schedule. Customer provided A/S Heat Controls should be set to 30% minimum off time at 75°F/55%RH
- Lighting Controls should be Occupancy Sensor Based or on a minimum 8 Hour Off Schedule. Customer provided A/S Heat Controls should be set to 30% minimum off time at 75°F/55%RH
- 1 Door & 4' case lengths available in 120V R448A condensing unit configuration.
  - 2,3,4 & 5 door lengths available in 208V R448A condensing unit configuration.



SHIPPING WEIGHT	
Case	Weight
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### SYSTEM REQUIREMENT (R-448A REFRIGERANT)

Case Length	Volts	Phase	Frequency	Minimum Circuit Ampacity (MCA)	Maximum Overcurrent Protection (MOP)	24hr Energy Usage (kWh)
1 Door	120	1	60	7.8	15.0	2.9
4'	120	1	60	11.8	15.0	5.4
2 Door	208	1	60	15.8	20.0	6.4
3 Door	208	1	60	16.0	20.0	7.2
4 Door	208	1	60	16.1	20.0	11.6
5 Door	208	1	60	17.6	20.0	13.7

### GUIDELINES AND CONTROL SETTINGS (R-448A REFRIGERANT)

Case Length	Application	Superheat Set Point @ Bulb (°F)	Discharge Air (°F)	Set Point Differential (°F)	Discharge Air Velocity (FPM)
1 Door	Beverage	6 - 8	40	6	100
1 Door	Bakery/Dairy/Cut Produce	6 - 8	36	6	100
2 -5 Door	Beverage	6 - 8	35	6	230
2 -5 Door	Bakery/Dairy/Cut Produce	6 - 8	30	6	230
2 -5 Door	Deli	6 - 8	29	6	230
4'	Beverage	6 - 8	32	4	183
4'	Bakery/Dairy/Cut Produce	6 - 8	31	4	183
4'	Deli	6 - 8	30	4	183

### CONDENSING UNIT DATA (R-448A REFRIGERANT)

Case Length	Volts	Phase	Frequency	Horsepower	Running Load Amps (RLA) (Amps)	Locked Rotor Amps (LRA) (Amps)	Refrigerant	Lbs. of Refrigerant
1 Door	120	1	60	1/4	4	26	R448A	2.0
4'	120	1	60	1/4	4.0	26.0	R448A	2.5
2 Door	208	1	60	1/3	3.6	17.5	R448A	2.5
3 Door	208	1	60	1/3	3.6	17.5	R448A	2.5
4 Door	208	1	60	1/3	3.6	17.5	R448A	2.5
5 Door	208	1	60	1/2	4.6	22.0	R448A	3.5

### DEFROST CONTROLS (R-448A REFRIGERANT)

Case Length	Defrosts Per Day	Run-Off Time (Min)	Fail-Safe (Min)	Termination Temp (F)
1 Door	2	0	60	40
4'	2	0	60	40
2-5 Door	2	0	46	44

### DEFROST SCHEDULE (R-448A REFRIGERANT)

Defrosts Per Day	Time
2	12 a.m. - 12 p.m.

#### NOTES:

- "---" indicates that this feature is not an option on this case model.
- Listed discharge air velocity represents the average velocity at the peak of defrost.
- Temperature and defrost settings listed below are recommended start-up settings. Final operational settings may need to be adjusted for the store conditions in which the case operates.
- The recommended evaporator temperatures may need to be adjusted based on system setup, store conditions, etc. The minimum recommended evaporator temperature is 4°F below the listed evaporator temperature.
- The 24 Hour Energy Value is based upon AHRI 1200 test conditions with Hillphoenix provided evaporator fans, condensing unit, LED lights, occupancy sensor based (on/off) lighting control, dew point based anti-sweat heat controller, condensate pump, evaporator pan, heated door frame, and un heated glass doors/off cycle defrost on medium temp cases.

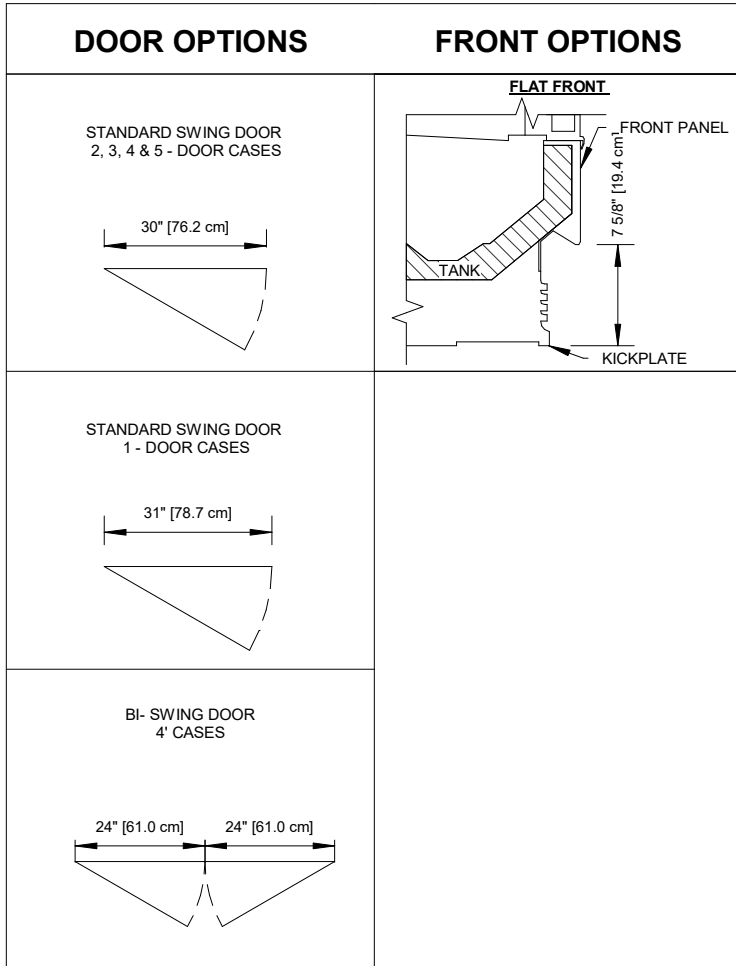


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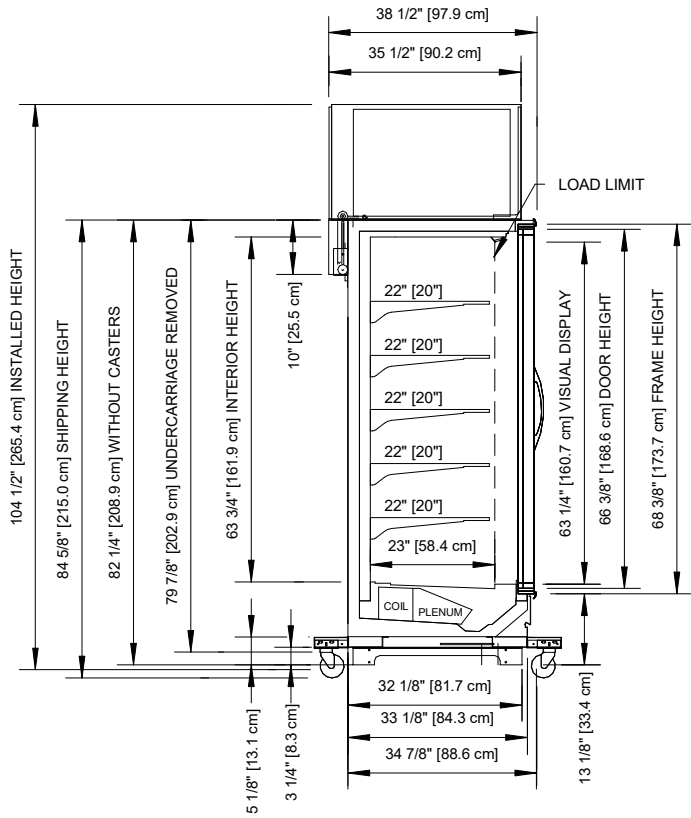
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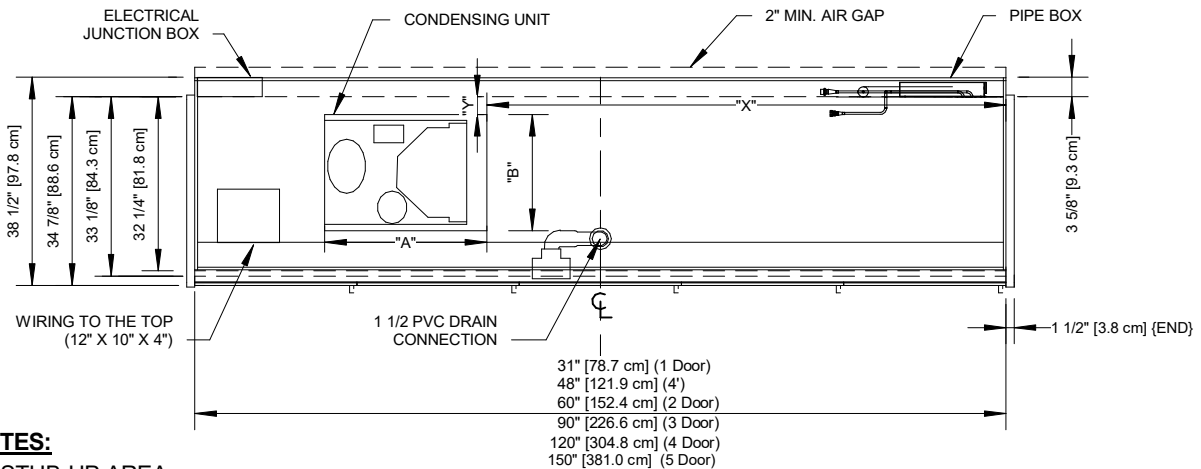
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CONDENSING UNIT SIZE AND POSITION R448A						
REFRIGERANT	R448 A					
CASE LENGTH	1DR	2DR	3DR	4DR	5DR	4'
"X"	5"	14"	37"	37"	41"	5"
"Y"	2.5"	2"	2"	2"	2"	2.5"
"A"	14.1"	18.3"	18.3"	18.3"	18.3"	14.1"
"B"	12.1"	13.4"	13.4"	13.4"	13.4"	12.1"



**NOTES:**

- \* : STUB-UP AREA.
- \*\* : RECOMMENDED STUB-UP CENTERLINE FOR ELECTRICAL AND HUB DRAINS.

- Specialized Base Frame:
- Case fits through 80" doorway with shipping undercarriage removed.
- 2" lifting brackets (installed) & 3.25" ship loose risers combine for 5" baseframe once installed.
- Drain traps ship loose.
- Ends add approximately 1" to case height, 1/2" to the back & 1" to the front.



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