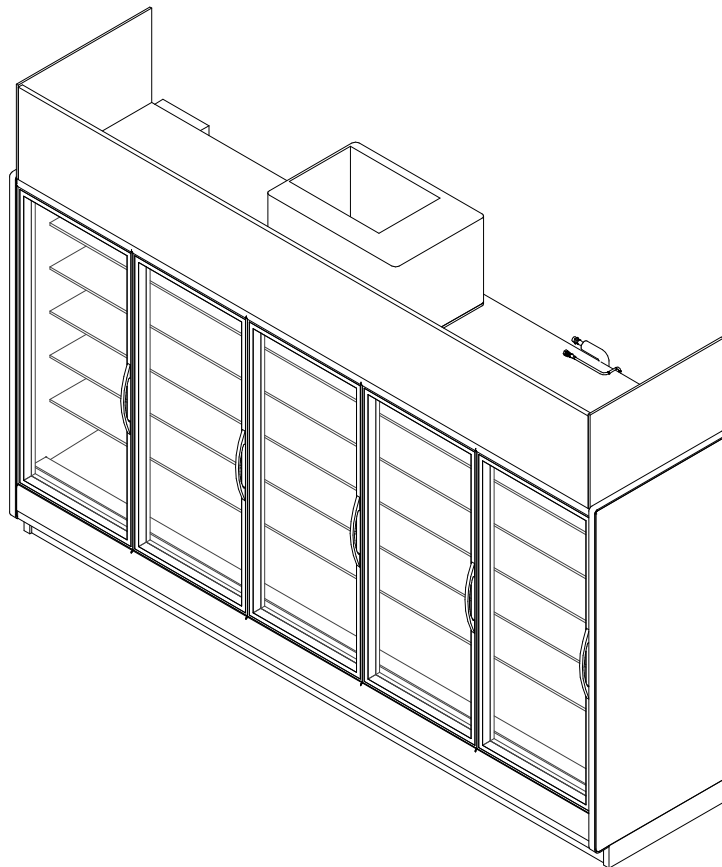


GENERAL NOTES:

- Anti-condensate heat values represent a door with no heat
- Light controls - occupancy sensors are required
- Option 1: OEM Provided: Lighting controls (on/off) are standard unless otherwise specified
- Option 2: End User Provided: Light controls should be based on occupancy sensors
- Light wattages below reflect 100% run time. To acquire DOE representation, reduce the light wattages by 42% at 75°F/55%RH
- 2, 3, 4, & 5 door lengths available in 208V R404A condensing unit configuration.



SHIPPING WEIGHT	
Case	Weight
JNRBHA	---



COMPONENT

ALL MEASUREMENTS ARE TAKEN PER ASHRAE-72-2005 SPECIFICATIONS. HILLPHOENIX REFRIGERATED DISPLAY CASES FOR SALE IN THE UNITED STATES MEET OR EXCEED DEPARTMENT OF ENERGY 2017 REQUIREMENTS.

JNRBHA

Rev. Date	Rev. #	Rev. Title
10-30-19	7	ENDVIEW UPDATE
8-22-19	6	DATA UPDATE

JNRBHA (R404A)

High Narrow Reach-In Self Contained Merchandiser
2, 3, 4 & 5 Door (Dairy/Deli/Beverage)

SYSTEM REQUIREMENT (R-404A REFRIGERANT)					
Case Length	Volts	Phase	Frequency	Minimum Circuit Ampacity (MCA)	Maximum Overcurrent Protection (MOP)
2 Door	208	1	60	16.3	20
3 Door	208	1	60	16.5	20
4 Door	208	1	60	16.6	20
5 Door	208	1	60	18.4	20

GUIDELINES AND CONTROL SETTINGS (R-404A REFRIGERANT)			
Application	Superheat Set Point @ Bulb (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
Beverage	6 - 8	35	230
Dairy	6 - 8	30	230
Deli	6 - 8	29	230

24hr Energy Usage (kWh)* (R-404A REFRIGERANT)	
Case Length	DOE
2 Door	6.09
3 Door	8.55
4 Door	10.2
5 Door	15.30

* - 24 Hour Energy values includes evaporate fans, standard LEDs, anti-condensate heat & condensing unit

CONDENSING UNIT DATA (R-404A REFRIGERANT)								
Case Length	Volts	Phase	Frequency	Horsepower	Running Load Amps (RLA) (Amps)	Locked Rotor Amps (LRA) (Amps)	Refrigerant	Lbs. of Refrigerant
2 Door	208	1	60	1/3	4.2	16.8	R404A	2.2
3 Door	208	1	60	1/3	4.2	16.8	R404A	2.6
4 Door	208	1	60	1/3	4.2	16.8	R404A	3.0
5 Door	208	1	60	1/2	5.3	26.5	R404A	3.5

DEFROST CONTROLS (R-404A REFRIGERANT)				
Application	Defrosts Per Day	Run-Off Time (Min)	Fail-Safe (Min)	Termination Temp (F)
Beverage	2	0	46	44
Dairy/Deli	2	0	46	40

DEFROST SCHEDULE (R-404A 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.
- Anti-condensate heat values represent a door with no heat.
- Listed discharge air velocity represents the average velocity at the peak of defrost.
- Temperature and defrost settings listed above 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.



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JNRBHA (R404A)

Rev. Date	Rev. #	Rev. Title
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JNRBHA (R448A)

High Narrow Reach-In Self Contained Merchandiser
2, 3, 4 & 5 Door (Dairy/Deli/Beverage)

SYSTEM REQUIREMENT (R-448A REFRIGERANT)					
Case Length	Volts	Phase	Frequency	Minimum Circuit Ampacity (MCA)	Maximum Overcurrent Protection (MOP)
2 Door	208	1	60	15.8	20.0
3 Door	208	1	60	16.0	20.0
4 Door	208	1	60	16.1	20.0
5 Door	208	1	60	17.6	20.0

R448A data is only available for the 1 dr and 4' lengths at this time. R448A data is not currently available for 2-5 dr lengths. An updated tech sheet will be posted when this data is available.

GUIDELINES AND CONTROL SETTINGS (R-448A REFRIGERANT)			
Application	Superheat Set Point @ Bulb (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
Beverage	---	---	---
Dairy	---	---	---
Deli	---	---	---

24hr Energy Usage (kWh)* (R-448A REFRIGERANT)	
Case Length	DOE
---	---
---	---
---	---
---	---

*- 24 Hour Energy values includes evaporate fans, standard LEDs, anti-condensate heat & condensing unit

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
2 Door	208	---	---	---	---	---	---	---
3 Door	208	---	---	---	---	---	---	---
4 Door	208	---	---	---	---	---	---	---
5 Door	208	---	---	---	---	---	---	---

DEFROST CONTROLS (R-448A REFRIGERANT)				
Application	Defrosts Per Day	Run-Off Time (Min)	Fail-Safe (Min)	Termination Temp (F)
Beverage	2	0	46	44
Dairy/Deli	2	0	46	40

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.
- Anti-condensate heat values represent a door with no heat.
- Listed discharge air velocity represents the average velocity at the peak of defrost.
- Temperature and defrost settings listed above 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.

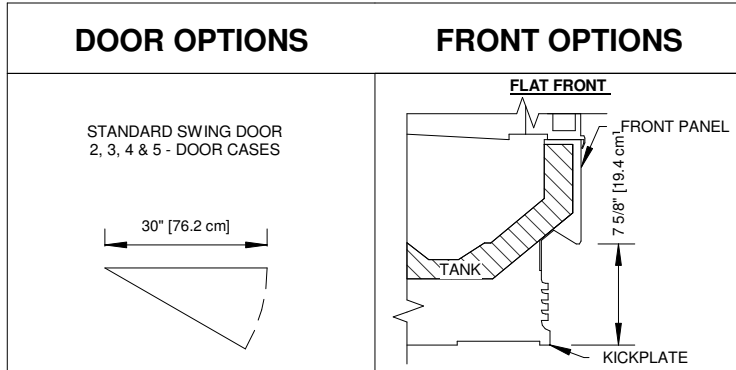


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JNRBHA (R448A)

Rev. Date	Rev. #	Rev. Title
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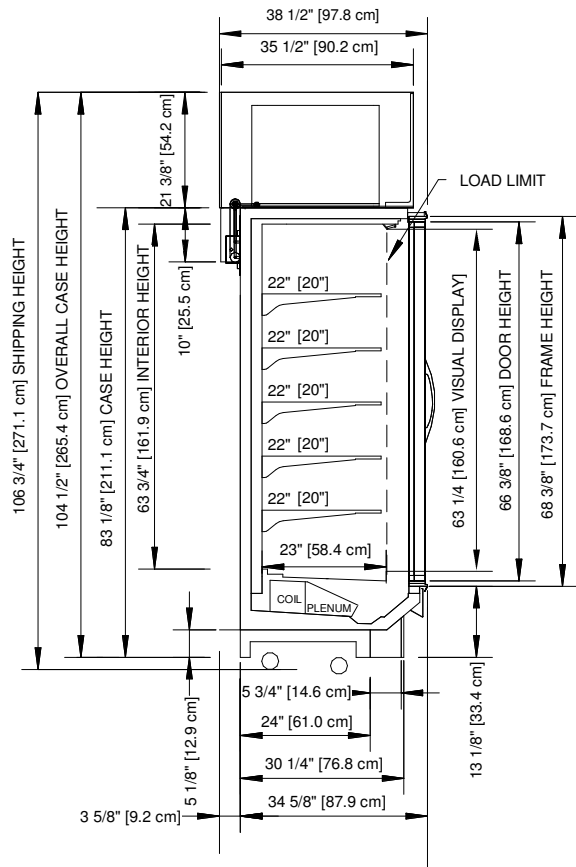




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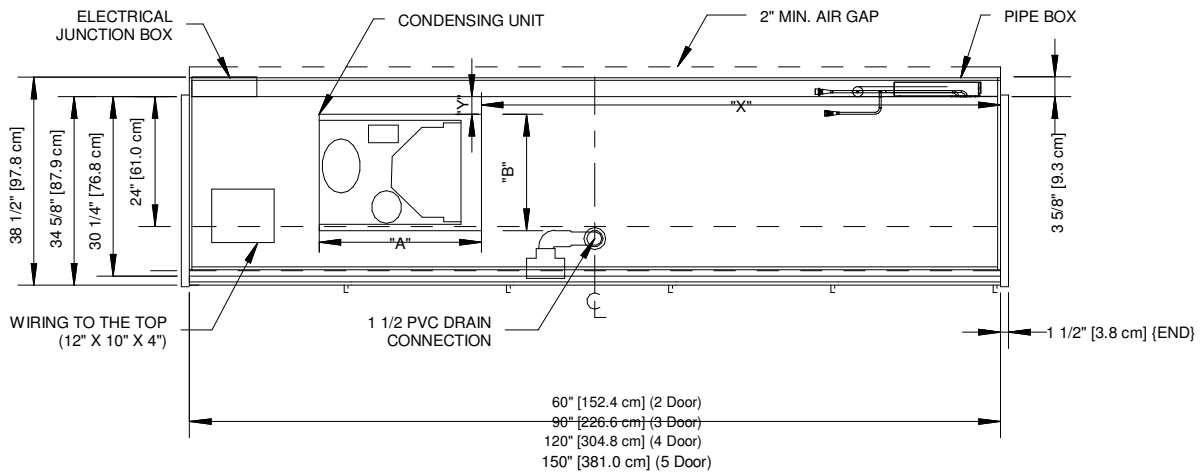
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CONDENSING UNIT SIZE AND POSITION R404A				
REFRIGERANT	R404 A			
CASE LENGTH	2DR	3DR	4DR	5DR
"X"	19.5"	33.4"	48.3"	33"
"Y"	4.5"	4.5"	4.5"	4.5"
"A"	16.6"	16.6"	16.6"	16.1"
"B"	13.1"	13.1"	13.1"	13.7"

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



NOTES:

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

- Ends add approximately 1" to case height, 1/2" to the back & 1" to the front.



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