

REFERENCE NOTES FOR ENGINEERING DATA

- "0.00" indicates that this feature is not an option on this case model.
- For back-to-back configurations, customers are required to install separate current-limiting devices for each side of the case per the amperage values listed. (Current-limiting devices are available for purchase through Hillphoenix).
- Drain heater and fan motors share the same circuit (separate cycles). Electrical circuits must be properly sized to accommodate the higher current draw of the tank heater.
- Defrost heater 3-phase load is unbalanced.
- 3-phase defrost heater data listed represents the maximum amps per phase.
- Lighting data listed is for the Optimax Radiant.
- Anti-condensate heat values for Eliminaator represent a door with no heat on the glass.
- 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.
- No run-off time required for electrical defrost.
- Typical electric defrost time is 20 minutes when ambient conditions are 75°F / 55%RH.
- Low energy doors (no heat on the glass) do not require anti-condensate or lighting controls. Frame A/S heat is cycled off during defrost cycles.
- Heated doors (heat on the glass) require anti-condensate and lighting controls. Frame A/S heat is cycled off during defrost cycles.
- Option 1: OEM Provided: OEM anti-condensate and lighting controls (on/off) are standard unless otherwise specified.
- Option 2: End User Provided: Light controls should be based on occupancy sensors. Store level A/S control should be set to 30% Light and A/S wattages below reflect 100% run time. To determine actual daily energy usage at 75°F/55%RH conditions, reduce the light wattages below by 42% and reduce the A/S values below by the minimum off time.

REFERENCE NOTES FOR CROSS SECTIONS

* : 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
- Wiring to the top adds approximately 4 inches to case height
- A 2" minimum air gap is required between the rear of the case and the wall
- Suction line: (4 door or less) - 1/2", Suction lines (5 door & 6 door) - 5/8"
- Liquid lines (all lengths)- 1/2", both electric & hot gas defrost
- Available shelf sizes: 20" & 22"
- Recommended configuration is (5) rows 20" shelves or (5) rows 22" shelves
- Castors add approximately 2 1/4" to case height



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10-15-2017	2	DOE 2017



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ELECTRICAL DATA - SINGLE-SIDE									
Doors	Fans Per Case	High Efficiency Fans		Tank Heater		Defrost Heaters (1-Phase)		Defrost Heaters (1-Phase)	
		120 Volts		120 Volts		208 Volts		240 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
2	2	0.6	50	1.3	152	7.5	1552	8.6	2068
3	3	1.0	75	1.5	171	10.9	2274	12.6	3018
4	4	1.3	100	1.9	226	14.3	2984	16.6	3992
5	5	1.6	125	2.3	275	17.5	3640	20.2	4840

BACK-TO- BACK									
Doors	Fans Per Case	High Efficiency Fans		Tank Heater		Defrost Heaters (1-Phase)		Defrost Heaters (1-Phase)	
		120 Volts		120 Volts		208 Volts		240 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
4	4	1.20	100	2.60	304	15.0	3104	17.2	4136
6	6	2.00	150	3.00	342	21.8	4548	25.2	6036
8	8	2.60	200	3.80	452	28.6	5968	33.2	7984
10	10	3.20	250	4.60	550	35.0	7280	40.4	9680

LIGHTING DATA - SINGLE-SIDE		
Door	LED Lighting	
	Optimax OP36	
	120 Volts	
	Amps	Watts
7.5	2	0.6
10.9	3	1.0
14.3	4	1.3
17.5	5	1.6

BACK-TO-BACK		
Doors	Optimax OP35 Pro	
	120 Volts	
	Amps	Watts
4	0.34	41
6	0.52	61
8	0.68	82
10	0.86	102

GUIDELINES AND CONTROL SETTINGS						
Application	BTUH/door		Evaporator (°F)	Superheat Set Point @ Bulb (F)	Discharge Air (F)	Discharge Air Velocity (FPM)
	Conventional	Parallel				
Frozen	897	871	-7 °F	3-5	-3	400
Ice Cream	990	962	-15 °F	3-5	-10	400

DEFROST CONTROLS					
Defrost Per Day	Run-Off Time (Min)	Electric Defrost		Hot Gas Defrost	
		Fail-Safe	Termination Temp (°F)	Fail-Safe	Termination Temp (°F)
1	13 -15	46	60 °F	24	73 °F

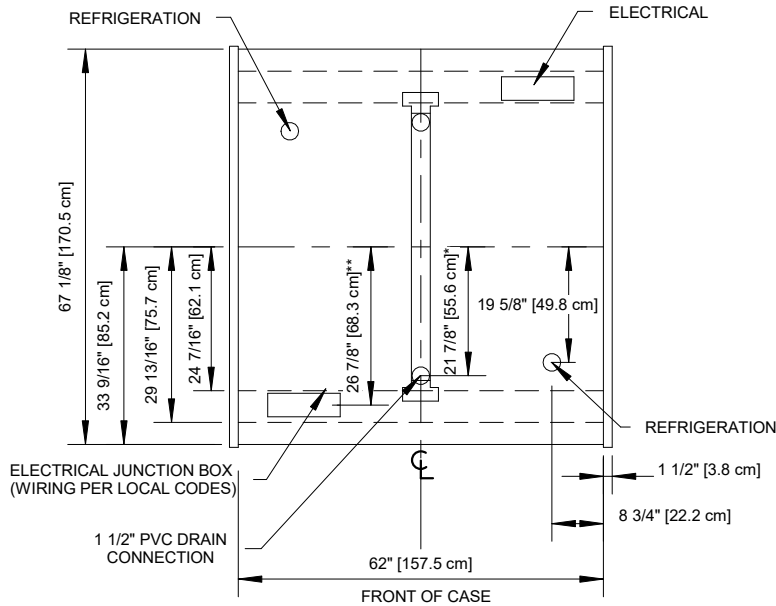
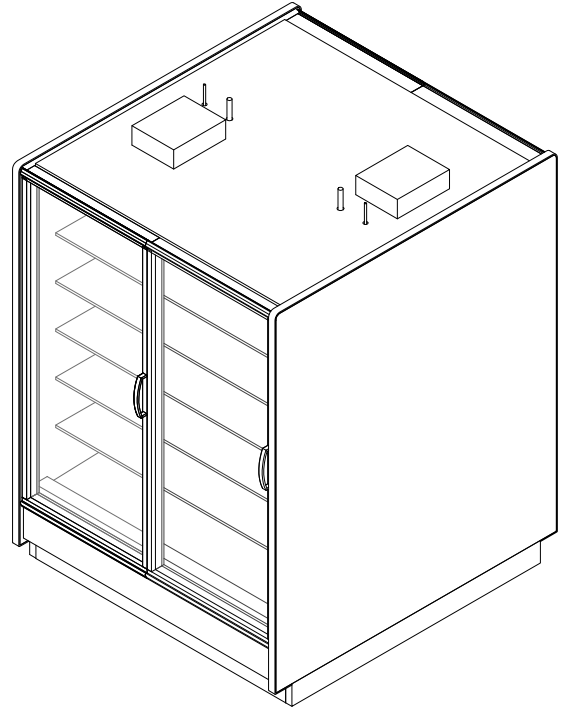
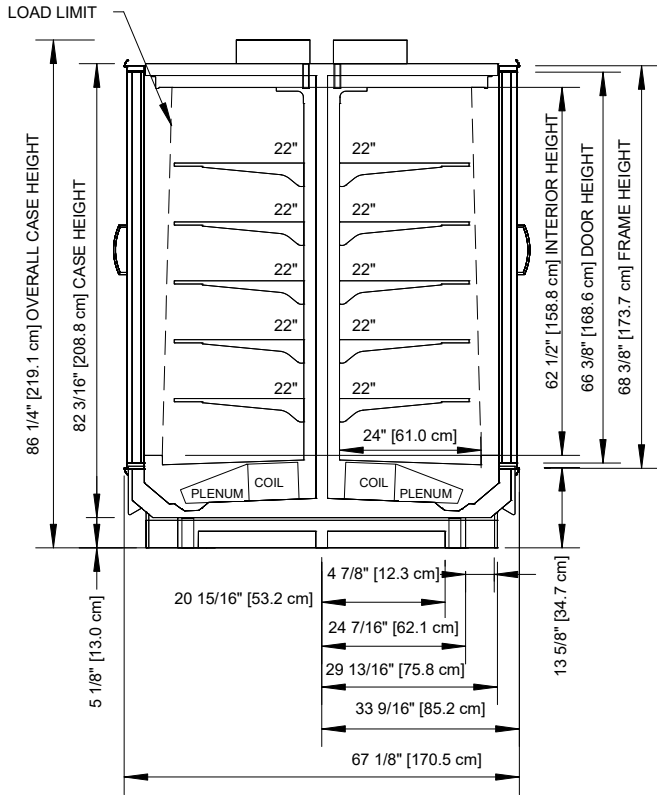


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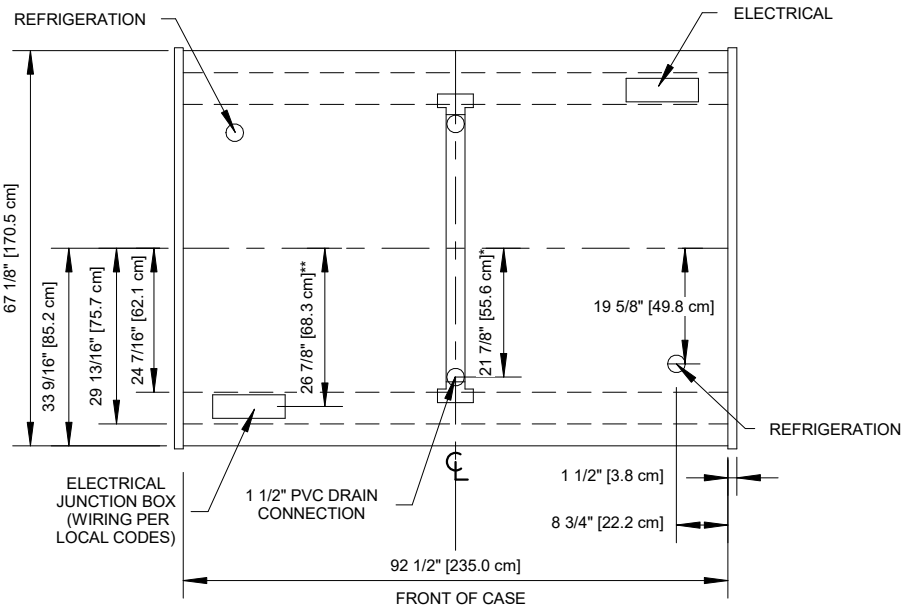
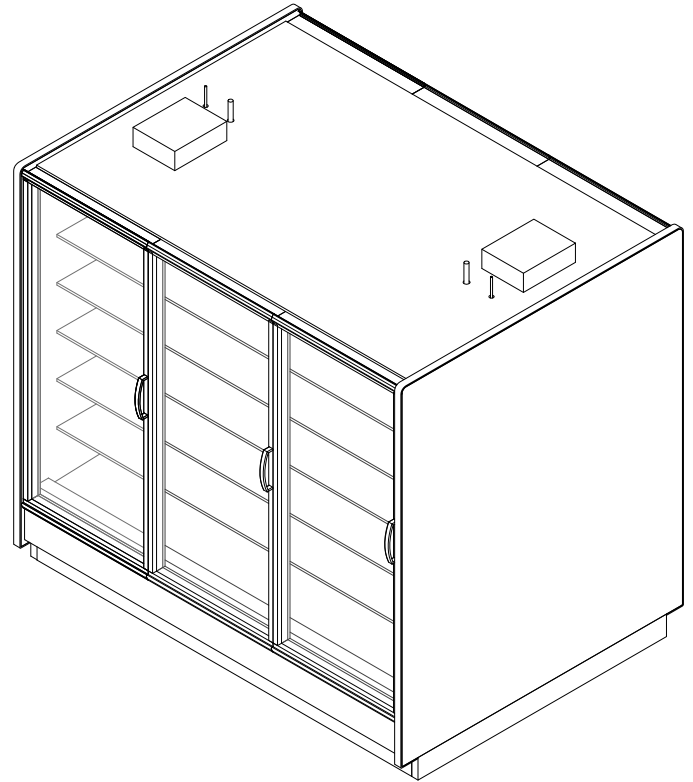
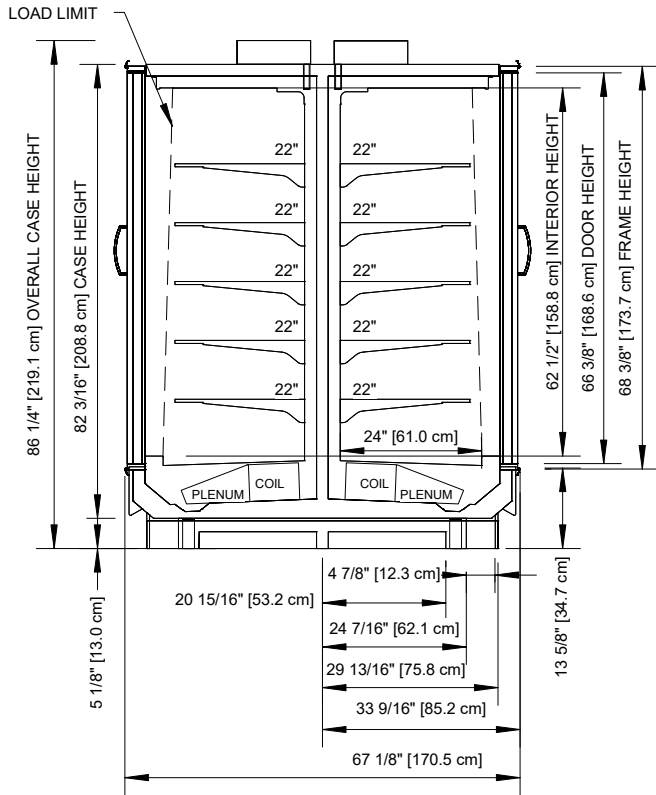
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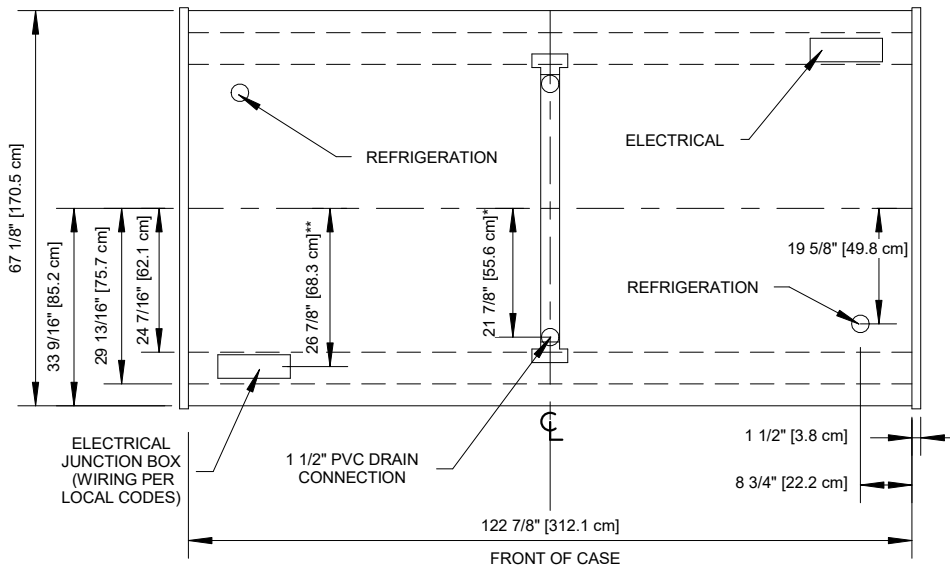
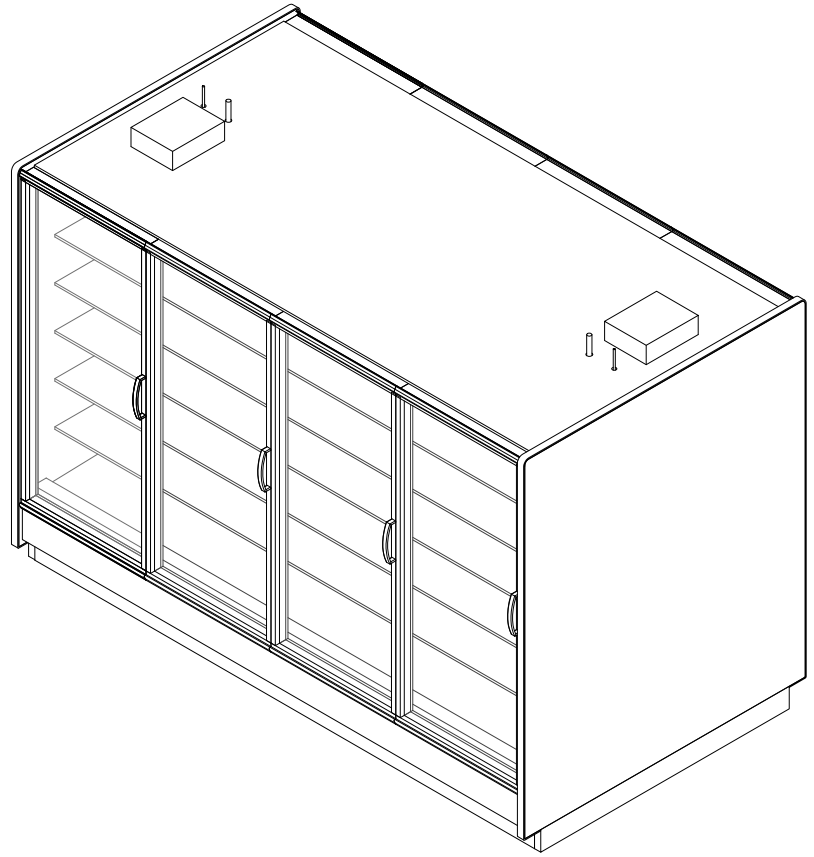
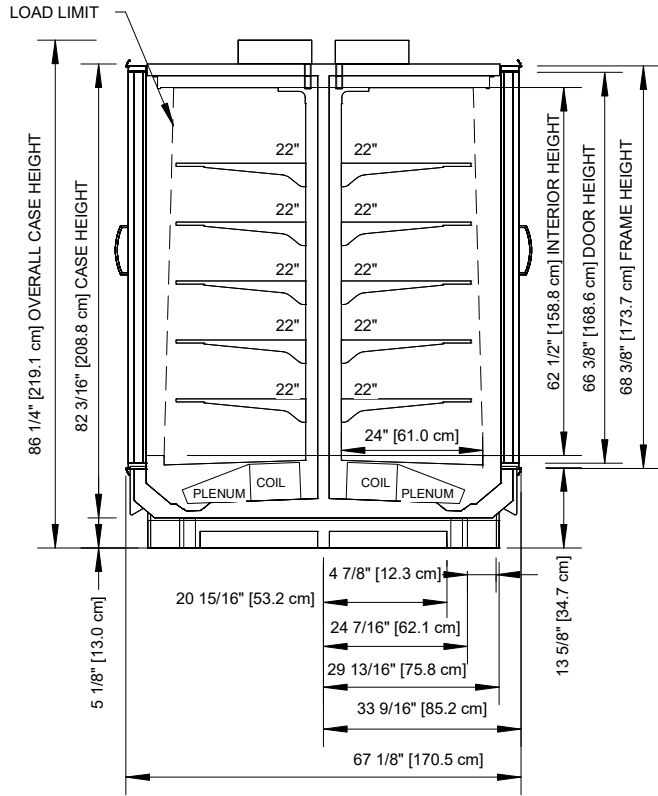
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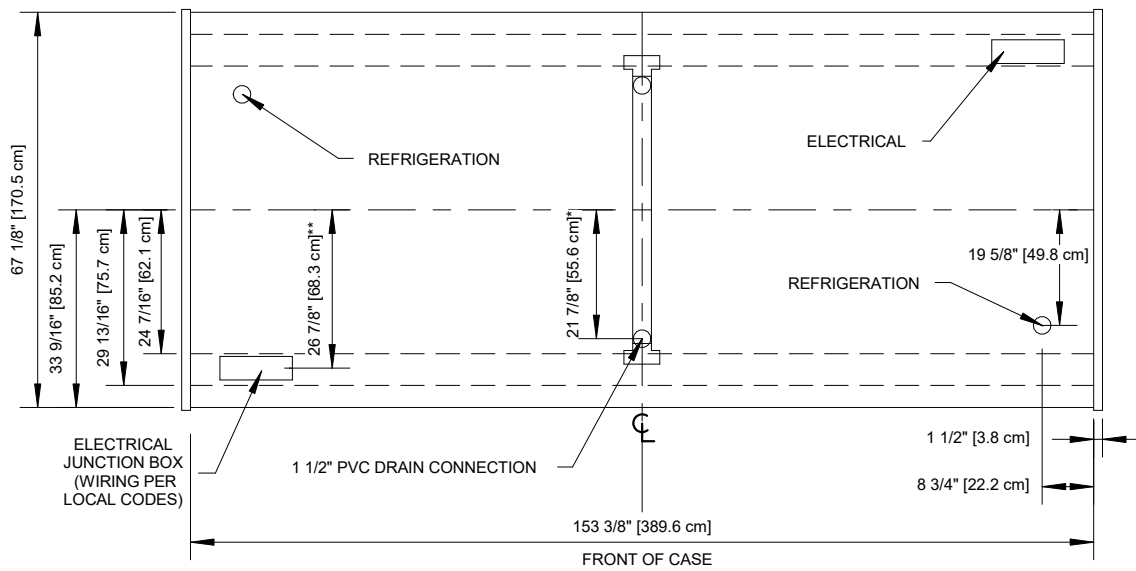
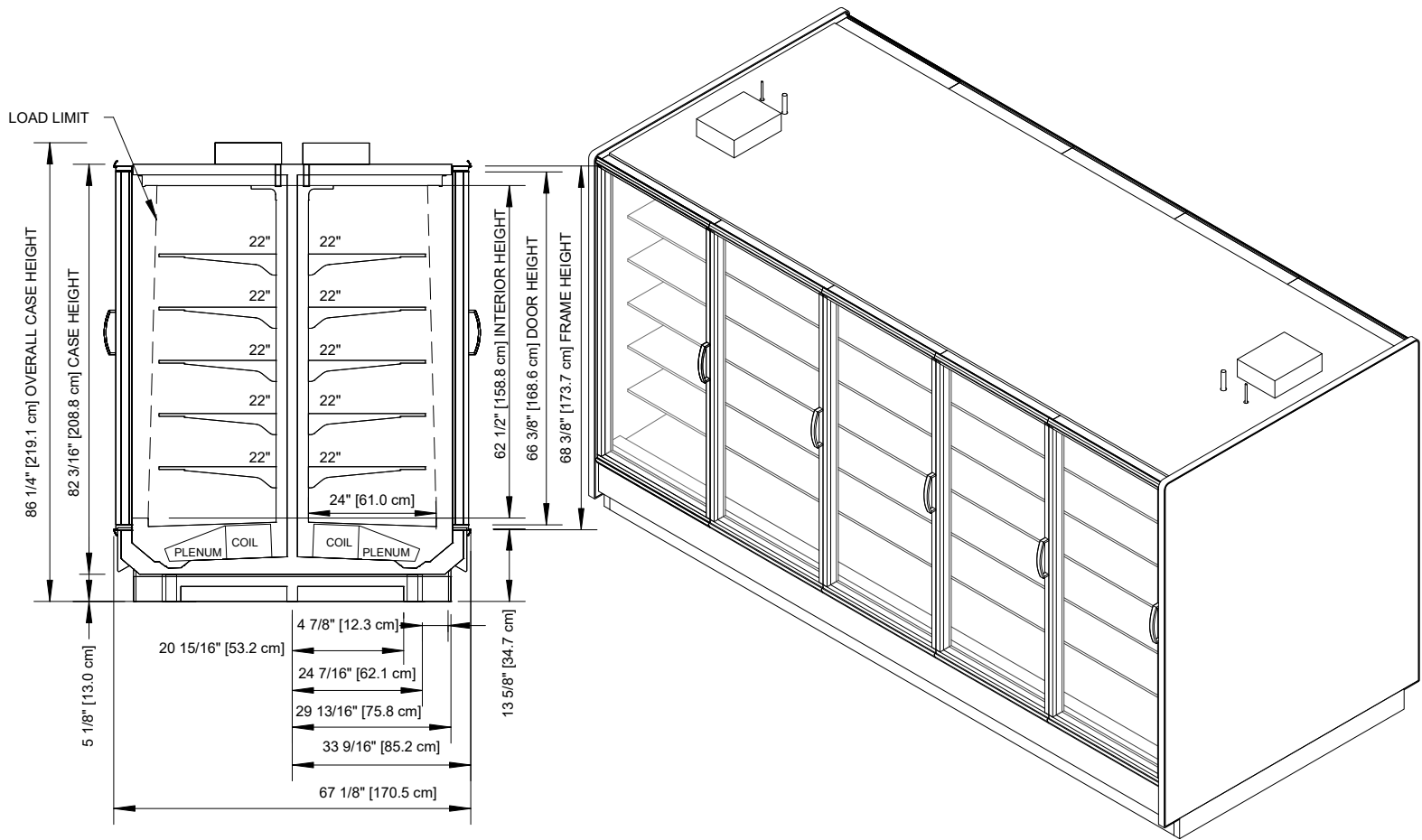
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