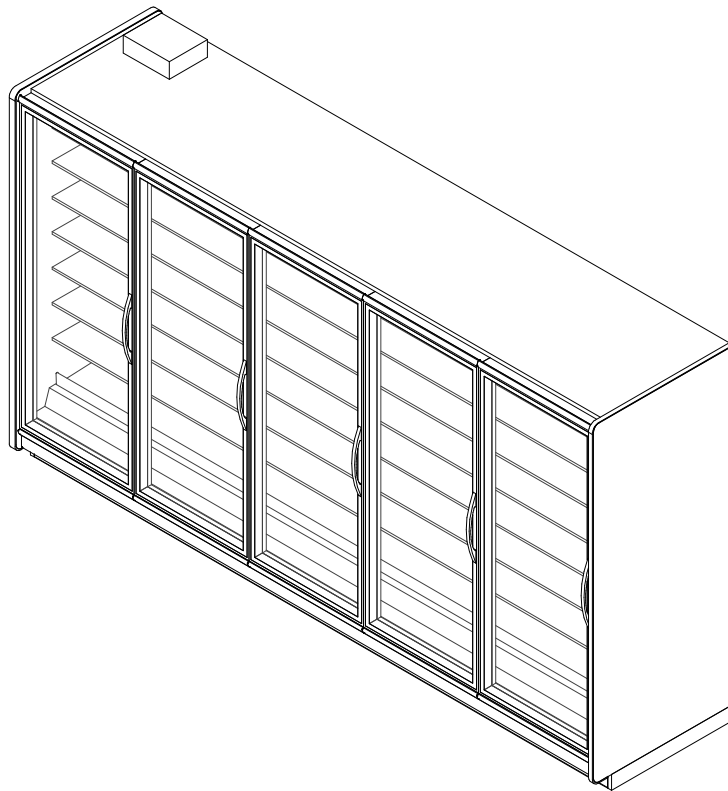


**GENERAL NOTES**

- Light controls - occupancy sensors are required.  
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 20% minimum off time at 75°F/55%RH.



SHIPPING WEIGHT	
Case	Weight
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ELECTRICAL DATA									
Case Length	Fans Per Case	High Efficiency Fans		Drain Heaters		Defrost Heaters			
		120 Volts		120 Volts		208 Volts		240 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
1 Door	1	0.40	26	0.90	113	3.27	680	3.78	906
2 Door	2	0.60	52	1.27	152	7.46	1552	8.62	2068
3 Door	3	1.00	78	1.43	171	10.93	2274	12.58	3018
4 Door	4	1.30	104	1.89	227	14.35	2984	16.63	3992
5 Door	5	1.60	130	2.29	275	17.50	3640	20.17	4840

LIGHTING DATA					
Case Length	Door Size	OP45		OP7 Single Swing	
		120 Volts		120 Volts	
		Amps	Watts	Amps	Watts
1 Door	31"	0.18	21.0	0.17	20.4
2 Door	30"	0.36	43.1	0.33	39.7
3 Door	30"	0.54	65.2	0.49	59.0
4 Door	30"	0.73	87.3	0.65	78.3
5 Door	30"	0.91	109.4	0.81	97.6

GUIDELINES AND CONTROL SETTINGS								
Case Length	Application	Door	BTUH/Door		Superheat Set Point @ Bulb (°F)	Evaporator (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
			Conventional	Parallel				
1 Door	Frozen	Heated	1415	1400	3 - 5	- 7	- 1	285
1 Door	Frozen	Low E	1345	1330	3 - 5	- 7	- 1	285
1 Door	Ice Cream	Heated	1575	1555	3 - 5	- 15	- 8	285
1 Door	Ice Cream	Low E	1500	1480	3 - 5	- 15	- 8	285

Case Length	Application	Door	BTUH/Door		Superheat Set Point @ Bulb (°F)	Evaporator (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
			Conventional	Parallel				
2 - 5 Door	Frozen	Heated	1091	1071	3 - 5	-7	-1	455
2 - 5 Door	Frozen	Low E	1037	1017	3 - 5	- 7	- 1	455
2 - 5 Door	Ice Cream	Heated	1188	1159	3 - 5	- 15	- 8	455
2 - 5 Door	Ice Cream	Low E	1129	1101	3 - 5	- 15	- 8	455



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ANTI CONDENSATE DATA											
Case Length	Door Size	Individual Circuits									
		190 Doors				ELMD,ELMH Doors				Door Frame	
		Heated Doors		Low E Doors		Heated Doors		Low E Doors		101-LE	
		120 Volts		120 Volts		120 Volts		120 Volts		120 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
1 Door	31"	0.30	36	0.18	21	0.33	39	0.19	22	0.82	98
2 Door	30"	0.65	72	0.36	43	0.66	79	0.37	45	1.36	163
3 Door	30"	0.98	109	0.53	64	0.99	118	0.56	67	1.90	228
4 Door	30"	1.31	145	0.71	85	1.31	158	0.74	89	2.48	298
5 Door	30"	1.63	181	0.89	107	1.64	197	0.93	112	3.00	360

DEFROST CONTROLS						
Defrosts Per Day	Electric Defrost			Hot Gas Defrost		
	Fail Safe (Min)	Termination Temp (°F)	Run Off Time	Fail Safe (Min)	Termination Temp (°F)	Run Off Time (Min)
1	46	50	0	24	73	13 - 15

### NOTES

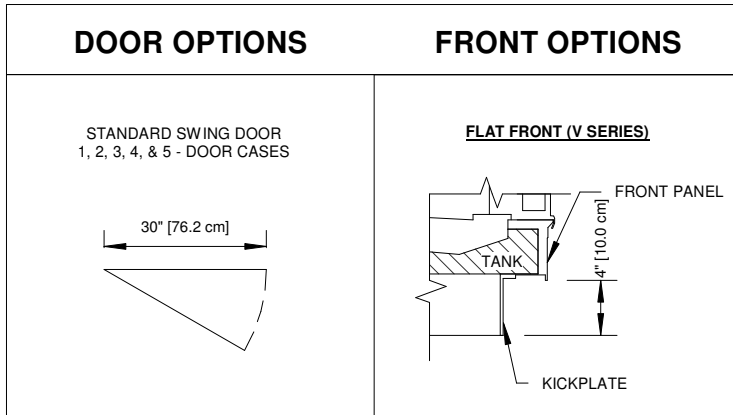
- "---" indicates that this feature is not an option on this case model.
- Door / Frame A/S circuits and fans share the same circuit (same cycle). Default jumpers can be removed in field if separate circuits are desired for A/S and fans.
- Drain heater and fan motors share the same circuit (separate 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.
- Data listed is for Optimax Radiant. For other lighting options please contact your sales representative.
- Anti-condensate heat values for Low E represent a door with no heat on the glass.
- Listed discharge air velocity represents the average velocity at the peak of defrost.
- Defrost Run-off Time applies to Hot Gas Defrost only. Electric Defrost has a 0-minute run-off time.
- 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.
- 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.
- Light and A/S wattages above reflect 100% run time. To determine actual daily energy usage at 75°F/55%RH conditions, reduce the light wattages above by 42% and reduce the A/S values above by the minimum off time.



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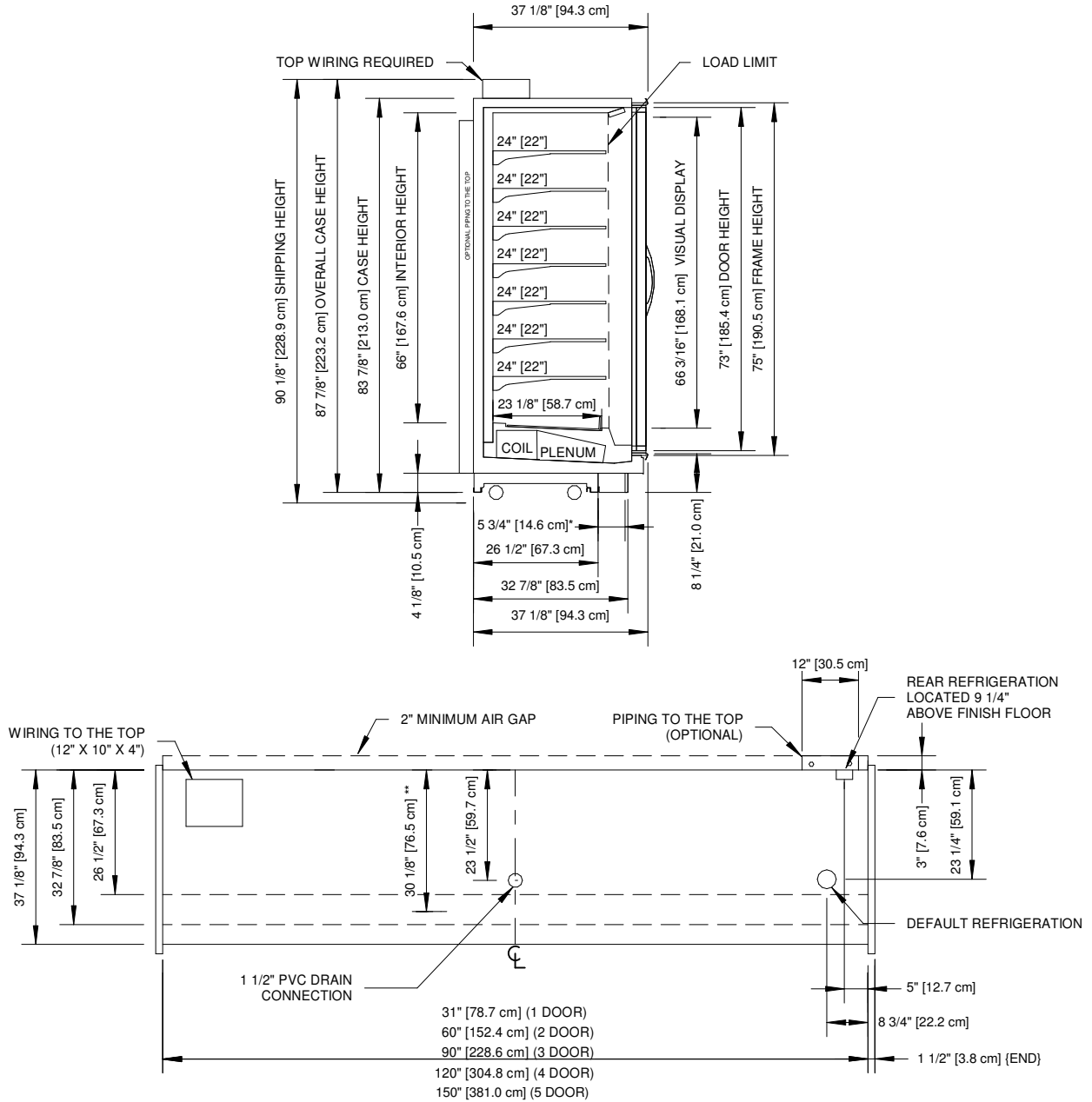
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### NOTES

- \* : 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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