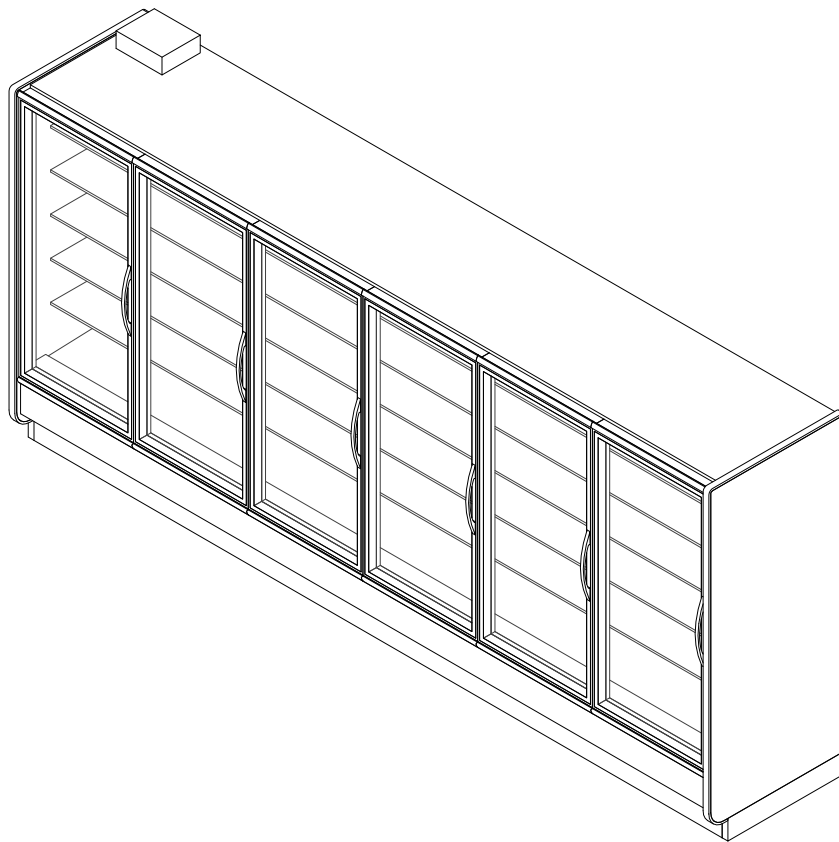


**GENERAL NOTES**

- 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 30% minimum off time at 75°F/55%RH.



SHIPPING WEIGHT	
Case	Weight
ONRZ	---



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ELECTRICAL DATA													
Case Length	Fans Per Case	High Efficiency Fans		Drain Heaters		Defrost Heaters (1-Phase)				Defrost Heaters (3-Phase)			
		120 Volt		120 Volts		208 Volts		240 Volts		208 Volts		240 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
1 Door	1	0.30	25	0.09	113	3.27	680	3.78	906	2.85	680	3.31	906
2 Door	2	0.60	50	1.32	152	7.50	1552	8.60	2068	6.50	1552	7.50	2068
3 Door	3	1.00	75	1.50	171	10.90	2274	12.60	3018	9.50	2274	10.90	3018
4 Door	4	1.30	100	1.90	226	14.30	2984	16.60	3992	12.40	2984	14.40	3992
5 Door	5	1.60	125	2.30	275	17.50	3640	20.20	4840	15.10	3640	17.40	4840
6 Door	6	1.90	150	2.70	320	20.30	4224	23.40	5624	17.60	4224	20.30	5624

LIGHTING DATA					
Case Length	Door Size	OP45		Optimax Pro 24 Low	
		120 Volts		120 Volts	
		Amps	Watts	Amps	Watts
1 Door	31"	0.18	21.0	0.16	18.8
2 Door	30"	0.36	43.1	0.31	36.8
3 Door	30"	0.54	65.2	0.46	54.8
4 Door	30"	0.73	87.3	0.61	72.8
5 Door	30"	0.91	109.4	0.76	90.8
6 Door	30"	1.10	131.5	0.91	108.8

ANTI CONDENSATE DATA											
Case Length	Door Size	Individual Circuits									
		I90 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"	0.26	32	0.16	19	0.30	36	0.18	21	0.72	86
2 Door	30"	0.53	63	0.32	38	0.59	71	0.35	42	1.19	143
3 Door	30"	0.79	95	0.48	57	0.89	107	0.53	63	1.67	200
4 Door	30"	1.05	126	0.63	76	1.18	142	0.70	84	2.18	262
5 Door	30"	1.32	158	0.79	95	1.48	178	0.88	105	2.64	317
6 Door	30"	1.58	190	0.95	114	1.78	213	1.05	126	3.13	376



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**Hillphoenix**  
A DOVER COMPANY

GUIDELINES AND CONTROL SETTINGS							
Application	Door	BTUH/ft		Superheat Set Point @ Bulb (°F)	Evaporator (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
		Conventional	Parallel				
Frozen	Heated	910	895	3 - 5	- 7	- 1	350
Frozen	Low E	892	850	3 - 5	- 7	- 1	350
Ice Cream	Heated	1017	996	3 - 5	- 15	- 8	350
Ice Cream	Low E	997	976	3 - 5	- 15	- 8	350

DEFROST CONTROLS						
Defrosts Per Day	Electric Defrost			Hot Gas Defrost		
	Fail Safe (Min)	Termination Temp (°F)	Run Off Time (Min)	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.
- Anti-condensate heat values for Low E represent a door with no heat on the glass.
- 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 and low power Optimax Pro (high power available). For other lighting options please contact your sales representative.
- 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.
- 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.
- 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.



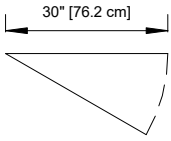
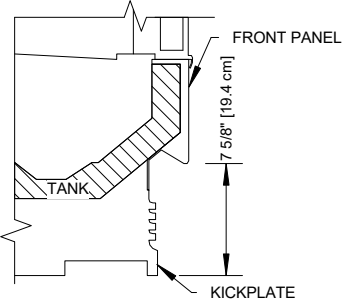
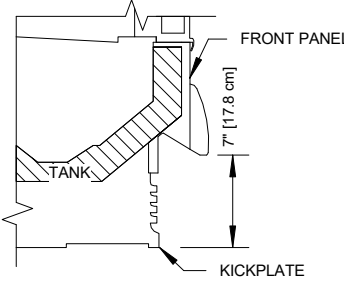
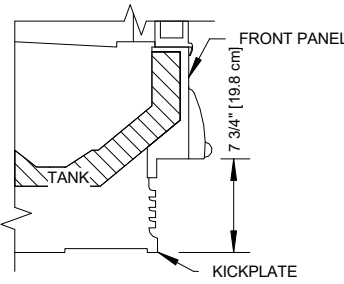
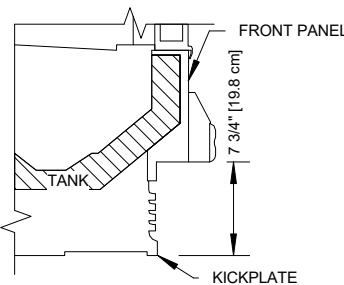
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A DOVER COMPANY

DOOR OPTIONS	FRONT OPTIONS
<p>STANDARD SWING DOOR 1, 2, 3, 4, 5, &amp; 6 - DOOR CASES</p> 	<p><b>FLAT FRONT (O SERIES)</b></p> 
	<p><b>STREAMLINE BUMPER</b></p> 
	<p><b>HALF BUMPER</b></p> 
	<p><b>CLASSIC 2 BUMPER</b></p> 

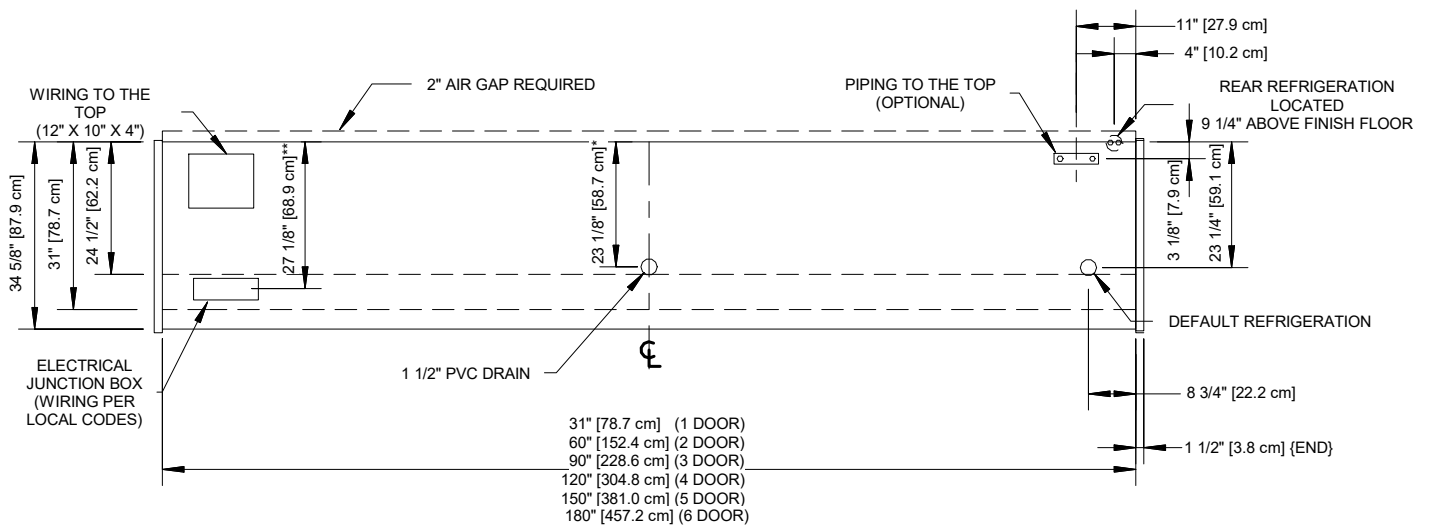
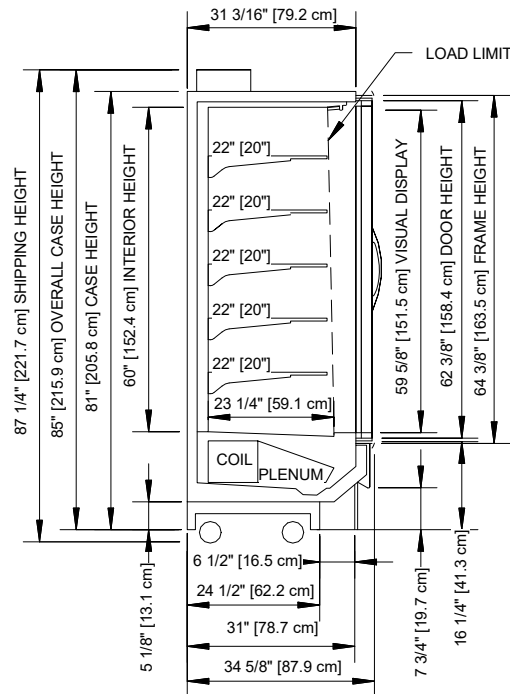


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### NOTES

- \* : 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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