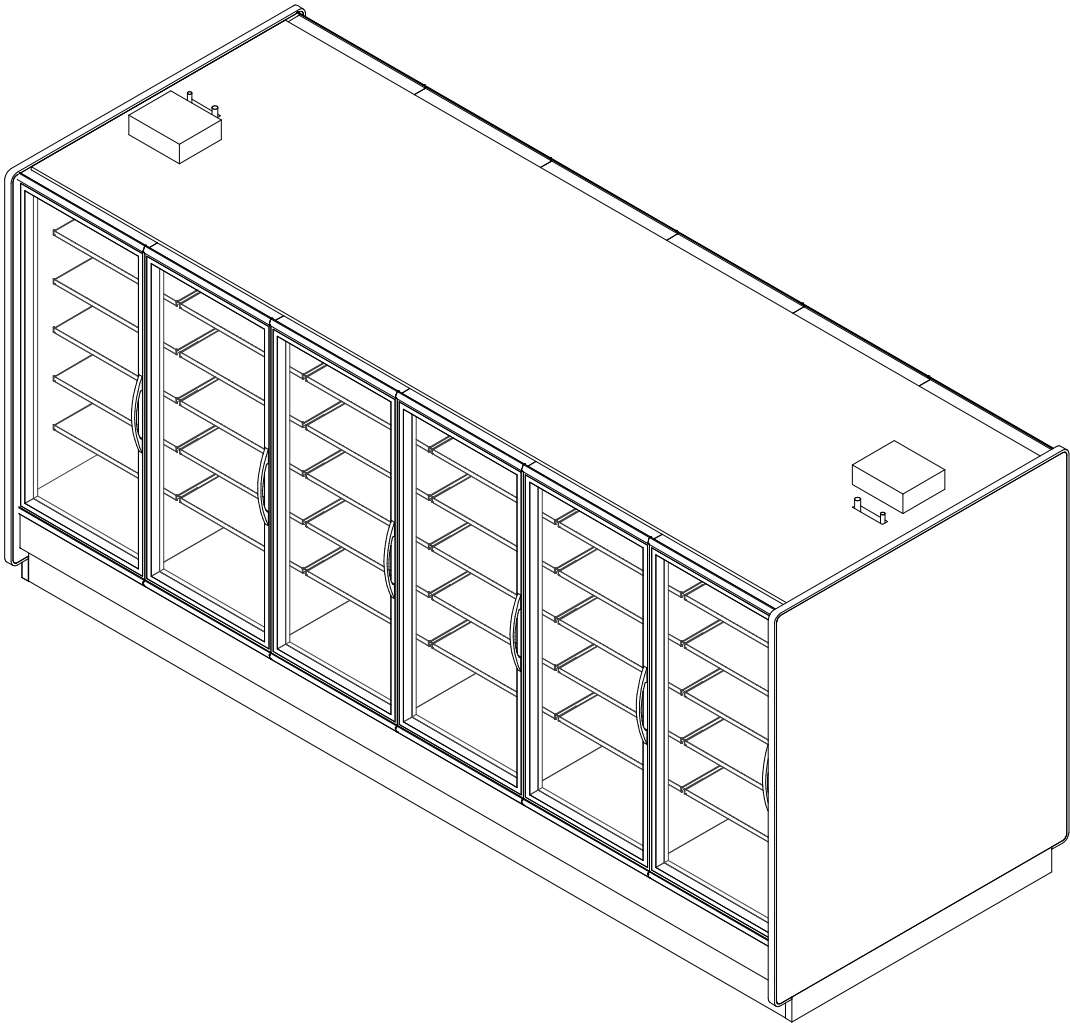


GENERAL NOTES:

- "----" indicates that the feature is not an option with this case model and/or the data is not available at this time.
- 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.)
- Light controls - occupancy sensors are required for heated doors. Low E doors do not required the sensors.
- 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
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ELECTRICAL DATA (Single-Side)

Case Length	Fans Per Case	High Efficiency Fans		Tank Heaters		Defrost Heaters (1-Phase)				Defrost Heaters (3-Phase)			
		120 Volts		120 Volts		208 Volts		240 Volts		208 Volts		240 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
2 Door	2	0.60	50	1.30	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	1.60	150	2.70	320	20.30	4224	23.40	5624	17.60	4224	20.30	5624

ELECTRICAL DATA (Back-To-Back)

Case Length	Fans Per Case	High Efficiency Fans		Tank Heaters		Defrost Heaters (1-Phase)				Defrost Heaters (3-Phase)			
		120 Volts		120 Volts		208 Volts		240 Volts		208 Volts		240 Volts	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
4 Door	4	1.20	100	2.60	304	15.00	3104	17.20	4136	13.00	3104	15.00	4136
6 Door	6	2.00	150	3.00	342	21.80	4548	25.20	6036	19.00	4548	21.80	6036
8 Door	8	2.60	200	3.80	452	28.60	5968	33.20	7984	24.80	5968	28.80	7984
10 Door	10	3.20	250	4.60	550	35.00	7280	40.40	9680	30.20	7280	34.80	9680
12 Door	12	3.80	300	5.40	640	40.60	8448	46.80	11248	35.20	8448	40.60	11248

LIGHTING DATA (Single-Side)

Case Length	Door Size	OP7 Single Swing	
		120 Volts	
		Amps	Watts
2 Door	30"	0.28	33.0
3 Door	30"	0.41	49.2
4 Door	30"	0.55	65.4
5 Door	30"	0.68	81.6
6 Door	30"	0.82	97.8

LIGHTING DATA (Back-To-Back)

Case Length	Door Size	OP7 Single Swing	
		120 Volts	
		Amps	Watts
4 Door	30"	0.55	66.0
6 Door	30"	0.82	98.4
8 Door	30"	1.09	130.8
10 Door	30"	1.36	163.2
12 Door	30"	1.63	195.6

GUIDELINES AND CONTROL SETTINGS {DIRECT EXPANSION HFC/CO₂} (Single-Side)

Application	Door	BTUH/Door		Superheat Set Point @ Bulb (°F)	Evaporator (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)
		Conventional	Parallel				
Frozen Food	Heated	989	968	3 - 5	- 7	- 1	210
Frozen Food	Low E	936	916	3 - 5	- 7	- 1	210
Ice Cream	Heated	1042	1005	3 - 5	- 15	- 8	210
Ice Cream	Low E	981	946	3 - 5	- 15	- 8	210

DEFROST CONTROLS {DIRECT EXPANSION HFC/CO₂}

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



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ANTI-CONDENSATE DATA (Single-Side)

Case Length	Door Size	Individual Circuits									
		I90 Doors				ELMD 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
2 Door	30"	0.56	67	0.34	40	0.64	76	0.38	45	1.26	151
3 Door	30"	0.84	101	0.51	61	0.95	114	0.57	68	1.76	211
4 Door	30"	1.12	135	0.67	81	1.27	152	0.76	91	2.29	275
5 Door	30"	1.40	169	0.84	101	1.59	191	0.95	114	2.78	334
6 Door	30"	1.69	202	1.01	121	1.91	229	1.14	136	3.28	394

ANTI-CONDENSATE (Back-To-Back)

Case Length	Door Size	Individual Circuits									
		I90 Doors				ELMD 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
4 Door	30"	1.12	134	0.68	80	1.28	152	0.76	90	2.52	302
6 Door	30"	1.68	202	1.02	122	1.9	228	1.14	136	3.52	422
8 Door	30"	2.24	270	1.34	162	2.54	304	1.52	182	4.58	550
10 Door	30"	2.80	338	1.68	202	3.18	382	1.9	228	5.56	668
12 Door	30"	3.38	404	2.02	242	3.82	458	2.28	272	6.56	788

NOTES:

- "----" 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).
- Tank 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. For other lighting options please contact your sales representative.
- Light 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%.
- Anti-condensate heat values for Low E represent a door with no heat on the glass.
- 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.
- 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.
- The recommended evaporator temperature and defrost settings 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.
- Discharge air temperature values represent readings taken within the upper air channel immediately behind/upstream of the honeycomb.
- Conventional Discharge Air Control – Recommended Settings:
 - Cut-In Temp = Discharge Air + 2°F
 - Cut-Out Temp = Discharge Air - 2°F
- Listed discharge air velocity represents the average velocity immediately after defrost completion using a Testo 410i vane anemometer with anemometer air scoop (HP part number P109185M) positioned adjacent to the interior edge of the discharge honeycomb.
- For optimal defrost performance, it is recommended to close both the liquid line and suction line during defrost. Published defrost data are based upon this configuration. Parameter changes may be required if alternative control methods are used.



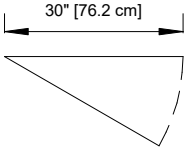
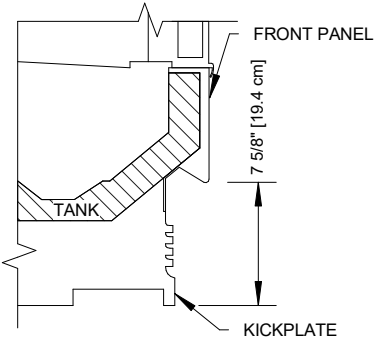
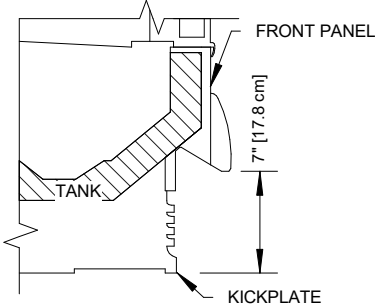
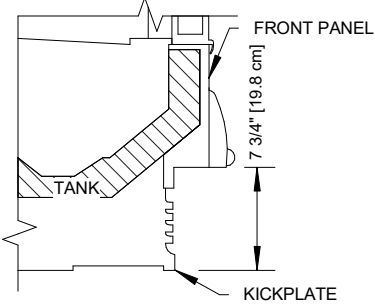
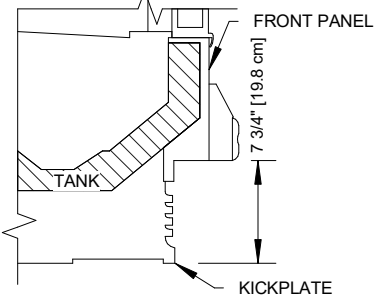
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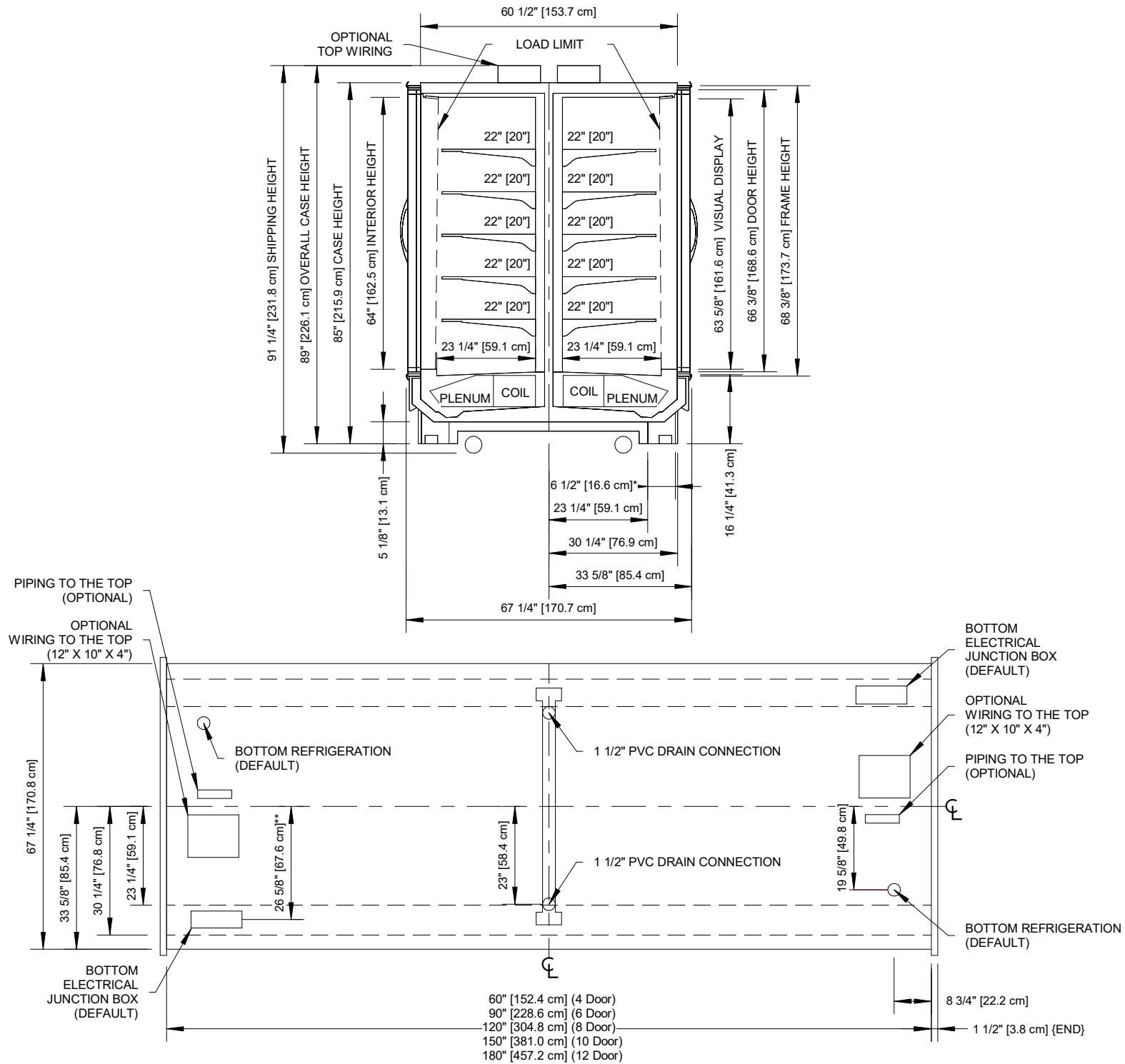
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DOOR OPTIONS	FRONT OPTIONS
STANDARD SWING DOOR 4, 6, 8, 10 & 12 - DOOR CASES 	FLAT FRONT (O SERIES) 
	STREAMLINE BUMPER 
	HALF BUMPER 
	CLASSIC 2 BUMPER 

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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" to the front.



COMPONENT

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optimox

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