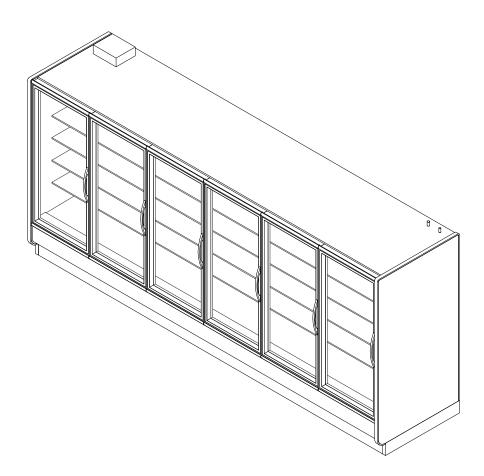
# **GENERAL NOTES:**

- 4-foot cases Bi-Swing consist of 2 (24") doors.
- 6-foot cases Bi-Swing swing consist of 3 (24") doors.
- 8-foot case Bi-swing consist of 4 (24") doors.
- 12-foot cases Bi-swing consist of 6 (24") doors.
- · Lighting controls occupancy sensors are required.
- Option 1: OEM Provided: Lighting controls (on/off) are standard unless otherwise specified.

- Option 2: End User Provided: Lighting 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 W	/EIGHT
Case	Weight
ORB	



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# ELECTRICAL DATA

		High Effic	iency Fans
Case	Fans Per	120	Volts
Length	Case	Amps	Watts
1 Door	1	0.22	26
2 Door	2	0.44	53
3 Door	3	0.66	79
4 Door	4	0.88	106
5 Door	5	1.10	132
6 Door	6	1.32	158
4'	1	0.22	26
6'	2	0.44	53
8'	2	0.44	53
12'	3	0.66	79

## LIGHTING DATA

LIGHTING										
		OP	45	· · · ·	OP55 (French Swing Only)		· · · · · · · · · · · · · · · · · · ·		OP7 French Swing	
Case		120 \	/olts	120	Volts	120	Volts	120 \	Volts	
Length	Door Size	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	
1 Door	31"	0.18	21.0			0.14	16.8			
2 Door	30"	0.36	43.1			0.28	33.0			
3 Door	30"	0.54	65.2			0.41	49.2			
4 Door	30"	0.73	87.3			0.55	65.4			
5 Door	30"	0.91	109.4			0.68	81.6			
6 Door	30"	1.10	131.5			0.82	97.8			
4'	24"			0.26	31.0			0.23	28.0	
6'	24"			0.52	61.9			0.44	52.3	
8'	24"			0.52	61.9			0.44	52.3	
12'	24"			0.77	92.8			0.64	76.6	

# ANTI CONDENSATE DATA

			101 F	rames	Vista F	rames
			Un Heat	ed Doors	Un Heate	ed Doors
			ELMD, E	LMH, 190	Vista	C, 160
		Number of	120	Volts	120	Volts
Case Length	Door Size	Doors	Amps	Watts	Amps	Watts
1 Door	31"	1	0.16	19	0.16	19
2 Door	30"	2	0.32	38	0.32	38
3 Door	30"	3	0.50	60	0.50	60
4 Door	30"	4	0.69	83	0.69	83
5 Door	30"	5	0.86	103	0.86	103
6 Door	30"	6	1.06	127	1.06	127
4'	24"	2	0.18	22	0.18	22
6'	24"	3	0.35	42	0.35	42
8'	24"	4	0.39	47	0.39	47
12'	24"	6	0.63	76	0.63	76



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<b>GUIDLINES AND CONTROL D</b>	ΑΤΑ							
		Door	BTUH/D	oor	Superheat Set Point @ Bulb		Discharge	Discharge Air Velocity
Application	Doors	Size	Conventional	Parallel	(°F)	Evaporator (°F)	Discharge Air (°F)	(FPM)
Beverage	1 - 6 Door	30"	500	460	4 - 6	34	40	215
Beverage	4'	24"	400	365	4 - 6	34	40	215
Beverage	6'	24"	400	365	4 - 6	34	40	215
Beverage	8'	24"	400	365	4 - 6	34	40	215
Beverage	12'	24"	400	365	4 - 6	34	40	215
Bakery/Cut Produce/Dairy/Deli	1 - 6 Door	30"	560	510	4 - 6	30	36	215
Bakery/Cut Produce/Dairy/Deli	4'	24"	445	405	4 - 6	30	36	215
Bakery/Cut Produce/Dairy/Deli	6'	24"	445	405	4 - 6	30	36	215
Bakery/Cut Produce/Dairy/Deli	8'	24"	445	405	4 - 6	30	36	215
Bakery/Cut Produce/Dairy/Deli	12'	24"	445	405	4 - 6	30	36	215
Meat/Seafood	1 - 6 Door	30"	595	545	4 - 6	28	34	215
Meat/Seafood	4'	24"	475	435	4 - 6	28	34	215
Meat/Seafood	6'	24"	475	435	4 - 6	28	34	215
Meat/Seafood	8'	24"	475	435	4 - 6	28	34	215
Meat/Seafood	12'	24"	475	435	4 - 6	28	34	215

#### DEFROST CONTROLS

	Timed-Off Defrost					
Defrosts Per Day	Fail-Safe (Min)	Termination Temp (°F)				
4	30	47				

#### NOTES:

• "---" indicates that this feature is not an option for this case model.

- · Data listed is for Optimax Radiant. For other lighting options, please contact your sales representative.
- · Anti-condensate heat values 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 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.

• Light wattages above reflect 100% run time. To determine actual daily energy usage at 75°F/55%RH conditions, reduce the light wattage by 42%.



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# SECOND NATURE DATA

SECOND NATURE D								
	No. of			BTUH/C	)oor	GPM/ft	Supply Fluid	Discharge Air
Case Model	Coils	Application	Front Sill height	Conventional	Parallel	(DR)	Temp (°F)	Temp (°F)
ORB (30" DOOR)	1	Beverage	Std. Reach In	500	460	0.05	20	38
ORB (30" DOOR)	1	Deli/Dairy	Std. Reach In	560	510	0.08	20	36
ORB (30" DOOR)	1	Meat	Std. Reach In	595	545	0.11	20	34
ORB (30" DOOR)	1	Beverage	Std. Reach In	500	460	0.08	25	38
ORB (30" DOOR)	1	Deli/Dairy	Std. Reach In	560	510	0.13	25	36
ORB (30" DOOR)	1	Meat	Std. Reach In	595	545	0.16	25	34
ORB (PER FOOT)	1	Beverage	Std. Reach In	200	183	0.02	20	38
ORB (PER FOOT)	1	Deli/Dairy	Std. Reach In	223	203	0.03	20	36
ORB (PER FOOT)	1	Meat	Std. Reach In	238	218	0.04	20	34
ORB (PER FOOT)	1	Beverage	Std. Reach In	200	183	0.03	25	38
ORB (PER FOOT)	1	Deli/Dairy	Std. Reach In	223	203	0.05	25	36
ORB (PER FOOT)	1	Meat	Std. Reach In	238	218	0.06	25	34

## SECOND NATURE DATA

						Timed-C	Off Defrost	Warm Fl	uid Defrost
	No. of			Supply Fluid	No. of	Fail-Safe	Termination	Fail-Safe	Termination
Case Model	Coils	Application	Front Sill height	Temp (°F)	Defrost	(Min)	Temp (°F)	(Min)	Temp (°F)
ORB (30" DOOR)	1	Beverage	Std. Reach In	20	4	60	47	26	49
ORB (30" DOOR)	1	Deli/Dairy	Std. Reach In	20	4	60	47	26	49
ORB (30" DOOR)	1	Meat	Std. Reach In	20	4	60	47	26	49
ORB (30" DOOR)	1	Beverage	Std. Reach In	25	4	45	47	26	49
ORB (30" DOOR)	1	Deli/Dairy	Std. Reach In	25	4	45	47	26	49
ORB (30" DOOR)	1	Meat	Std. Reach In	25	4	45	47	26	49
ORB (PER FOOT)	1	Beverage	Std. Reach In	20	4	60	47	26	49
ORB (PER FOOT)	1	Deli/Dairy	Std. Reach In	20	4	60	47	26	49
ORB (PER FOOT)	1	Meat	Std. Reach In	20	4	60	47	26	49
ORB (PER FOOT)	1	Beverage	Std. Reach In	25	4	45	47	26	49
ORB (PER FOOT)	1	Deli/Dairy	Std. Reach In	25	4	45	47	26	49
ORB (PER FOOT)	1	Meat	Std. Reach In	25	4	45	47	26	49

# NOTES:

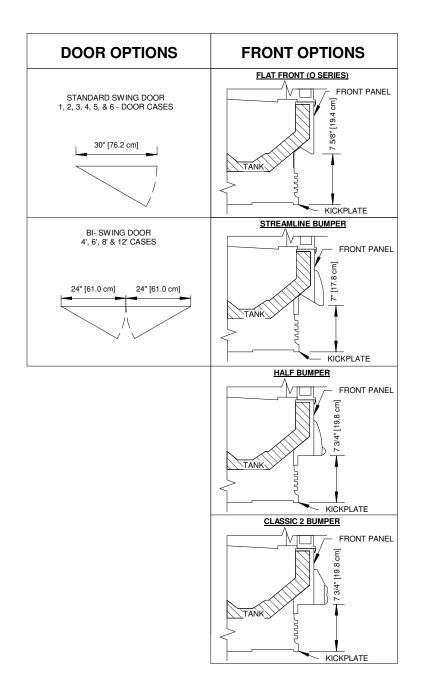
- All medium temperature data listed is for 35% by wt. PROPYLENE GLYCOL.
- Inhibited Propylene Glycol solution with water, such as Dowfrost or equivalent. (Dowfrost is a trademark of the Dow Chemical Company).
- · Flowrates are determined by ASHRAE test conditions and may need to be adjusted based on store conditions.
- \*\* Flowrates are per case



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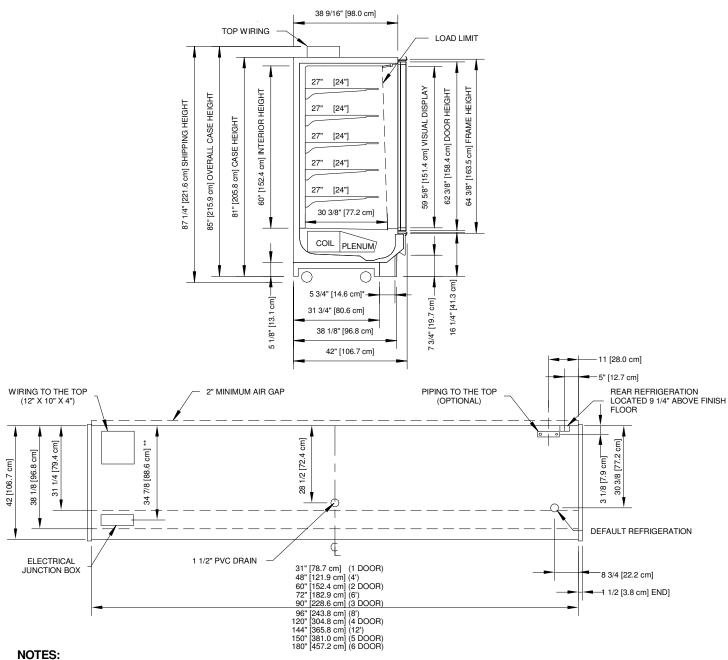




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#### NOTES:

\* : STUB-UP AREA

- \*\* : RECOMMENDED STUB-UP CENTERLINE FOR ELECTRICAL AND HUB DRAINS
- Ends add aproximately 1" to case height, 1/2" to the back & 1" to the front.



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