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Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
FAN ASSEMBLIES AND THERMOSTATS				LAMPS AND BALLASTS			
A.	0392457	Fan Motor, Evaporator (120V) (MO.4410101)	(1)	E.	Electronic Ballast		(5)
	0409512	Fan Blade (120V) (FB.0409512) embossing toward motor			0355716	2 lamps (120V) (BA.0355716)	
	0436517	Fan Motor, Evaporator (220V) (MO.4410105)			0355398	3 lamps (120V) (BA.4480118)	
	0409513	Fan Blade (220V) (FB.0409513) embossing toward motor			0440215	2 lamps (230V 50-60 Hz) (BA.4481267)	
B.	0404551	Fan Motor, Ambient (120V) (MO.0404551)	(2)		0428652	3 lamps (230V 50-60 Hz) (BA.4480897)	
	0404552	Fan Motor, Ambient (220V) (MO.4410590)			0385104	Ballast Transformer (230V 50-60 Hz, per ballast) (TR.4481191)	
C.	0382028	Standard Non-adjustable Defrost Thermostat (CT.0382028)	(3)	F.	Fluorescent Lamp		(6)
D.	0137880	Optional Adjustable Refrigeration Thermostat (CT.4481084)	(4)			<i>Replace with like fixtures</i>	

Note: Revision B updates the plan view on page 2 and cross-section on page 3.



Engineering Plan Views

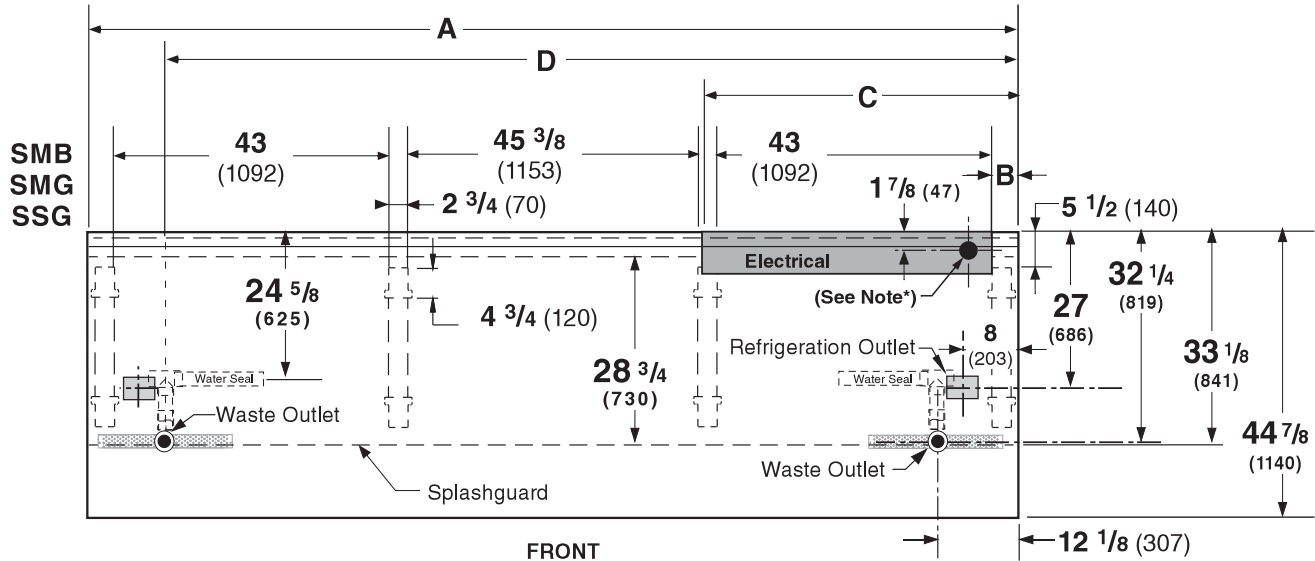
Meat & Delicatessen

05-2011

PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/2
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Dimensions shown as in. and (mm).



	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length	48 1/4 (1226)	72 1/4 (1835)	96 3/8 (2448)	144 1/2 (3670)
Maximum O/S dimension of case back to front (Note: Includes bumper)	44 7/8 (1140)	44 7/8 (1140)	44 7/8 (1140)	44 7/8 (1140)
Back of case to front of splashguard	33 1/8 (841)	33 1/8 (841)	33 1/8 (841)	33 1/8 (841)
Center of rear legs to center of front legs	23 1/2 (598)	23 1/2 (598)	23 1/2 (598)	23 1/2 (598)
Each End and Partition adds 1 1/2 in. (38 mm) to the length of the lineup.				
Electrical Service				
(B) RH end of case to Electrical raceway right edge	3 7/8 (98)	3 7/8 (98)	3 7/8 (98)	3 7/8 (98)
(C) RH end of case to Electrical raceway left edge	41 3/8 (1051)	32 3/4 (831)	40 1/8 (1019)	44 1/2 (1131)
Back of case to center of knockout	1 7/8 (47)	1 7/8 (47)	1 7/8 (47)	1 7/8 (47)
* Electrical Field Wiring Connection Point				
Waste Outlet				
(D) RH End of case to the center of LH waste outlet	36 1/4 (921)	60 1/4 (1530)	84 3/8 (2143)	132 1/2 (3366)
RH End of case to the center of RH waste outlet	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)
Back O/S of case to center of waste outlets	32 1/4 (819)	32 1/4 (819)	32 1/4 (819)	32 1/4 (819)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
** Field installed water seal outlets, tees, and connectors are shipped with the merchandiser.				
Refrigeration Outlet				
Back of case to center of refrigeration outlet	27 (686)	27 (686)	27 (686)	27 (686)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)
Outside diameter of the liquid line	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
Outside diameter of the suction line	5/8 (16)	5/8 (16)	5/8 (16)	5/8 (16)

Excel SMB
Meat & Delicatessen

REFRIGERATION DATA

Note: This data is based on store temperature and humidity that does not exceed 75°F and 55% R.H.

	SMB
Discharge Air (°F)	24
Evaporator (°F)	18
Unit Sizing (°F)	16
Btu/h/ft	SMB
Parallel	420
Conventional	450

DEFROST DATA

	SMB
Frequency (hr)	12
Defrost Water (lb/ft/day)	0.20
<i>(± 15% based on case configuration and product loading.)</i>	

OFFTIME	SMB
Temp Term (°F)	43°
Failsafe (minutes)	90

ELECTRIC OR GAS Not Recommended

Standard Defrost Thermostat
Close on rise: close 43°F — open 33°F

CONVENTIONAL CONTROLS

Low Pressure Backup Control	
	SMB
CI/CO (Temp °F)*	11°F / 1°F
Indoor Unit Only, Pressure Defrost Termination (Temp °F)*	

Not Recommended

*Use a Temperature Pressure Chart to determine PSIG conversions.

PHYSICAL DATA

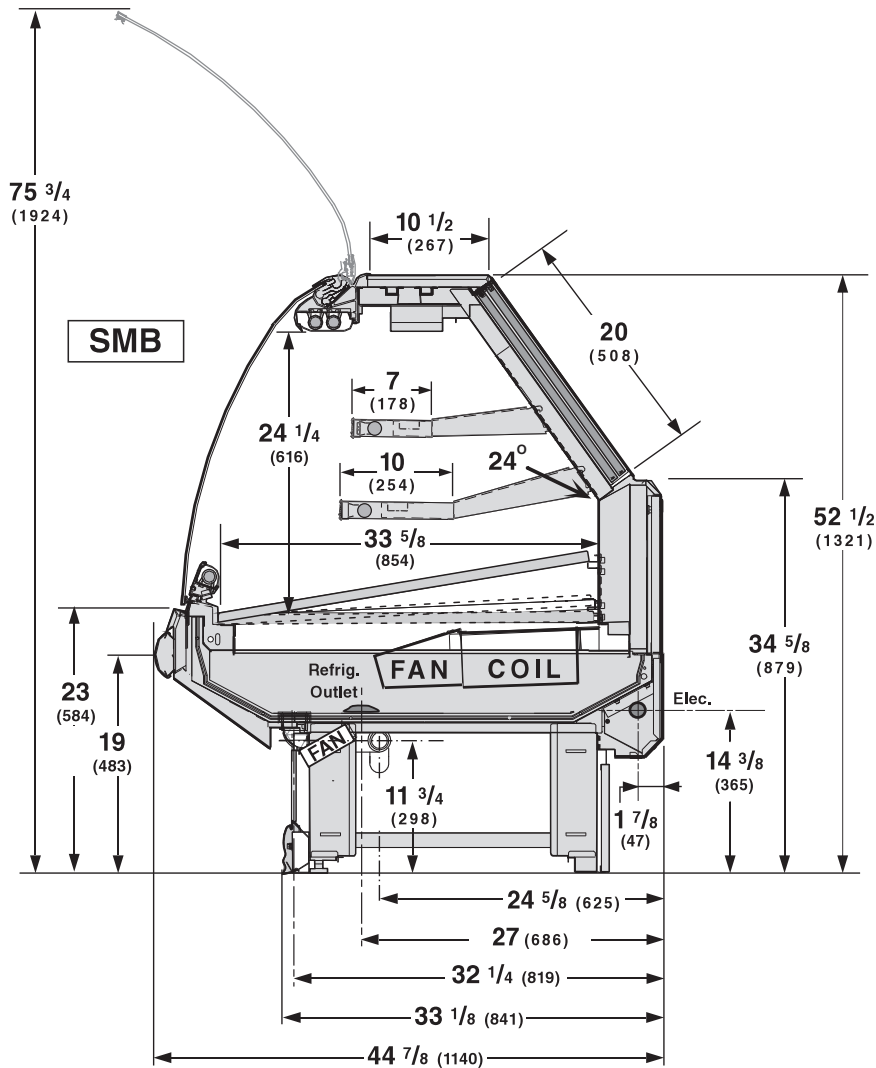
Estimated Charge (lb)**			
4 ft	0.75 lb	12 oz	0.35 kg
6 ft	1.0 lb	16 oz	0.5 kg
8 ft	1.5 lb	24 oz	0.7 kg
12 ft	2.0 lb	32 oz	0.9 kg

**This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately 0.5 lb (8 oz / 0.2 kg).

Length Added to Lineup by:

Each Plastic End w/ Bumper (in.)	3 1/2
Each End/Partition (in.)	1 1/2

Dimensions shown as in. and (mm).



NSF Certification

This merchandiser model is manufactured to meet ANSI/NSF (National Sanitation Foundation) Standard #7 requirements for construction, materials & cleanability.

Electrical Data

Number of Fans	4 ft	6 ft	8 ft	12 ft
Refrigeration (120V 60hz) – 4W	1	2	2	3
Ambient Air Wipe – 15W	2	4	4	6
Export Refrigeration (230V 50 hz) – 4W	1	2	2	3
Export Ambient Air Wipe – 15W	2	4	4	6

Merchandiser	Amperes				Watts			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Refrigeration Fans								
Standard (120V 60hz)	0.31	0.62	0.62	0.93	24	48	48	72
Energy Efficient (120V 60hz)	NA	NA	NA	NA	NA	NA	NA	NA
Export: 230V 50 hz	0.18	0.36	0.36	0.54	27	54	54	81
Ambient Air Wipe Fans								
Standard (120V 60hz)	0.26	0.52	0.52	0.78	15	30	30	45
Energy Efficient (120V 60hz)	NA	NA	NA	NA	NA	NA	NA	NA
Export: 230V 50 hz	0.13	0.26	0.26	0.39	15	30	30	45
Constant On Anti-sweat Heaters	NA	NA	NA	NA	NA	NA	NA	NA
Cycling Anti-sweat Heaters	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Circuit Ampacity								
With Standard Fans (120V 60hz)	0.77	1.34	1.34	1.91				
With Energy Efficient Fans (120V 60hz)	NA	NA	NA	NA				
With Export Fans (230V 50 hz)	0.51	0.82	0.82	1.13				
Maximum Over Circuit Protection 120V	20	20	20	20				
Electric Defrost Heaters (208V)	NA	NA	NA	NA	NA	NA	NA	NA
Gas Defrost Heaters (208V)	NA	NA	NA	NA	NA	NA	NA	NA

Standard Lighting* (120V 60hz)	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
2 Row Canopy	0.49	0.80	0.98	1.42	58	92	116	170
1 Row Rail	0.49	0.40	0.49	0.71	58	46	58	85

Optional Lighting								
1 Row Ledge	0.49	0.40	0.49	0.71	58	46	58	85
2 Row Shelves	0.49	0.80	0.98	1.42	58	92	116	170

115V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting
 230V Lighting Circuit Total = Multiply 115V Lighting Circuit Total by 0.52

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Ft)	2.61 ft ³ /ft (0.24 m ³ /m)
<i>ARI Total Display Area</i> ² (Sq Ft/Ft)	1.86 ft ² /ft (0.57 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	4.22 ft ² /ft (1.29 m ² /m)

¹ ARI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
² Computed using ARI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
³ Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann *Product Reference Guide*. The standard shelf complement for this model is one 7-inch shelf and one 10-inch shelf.

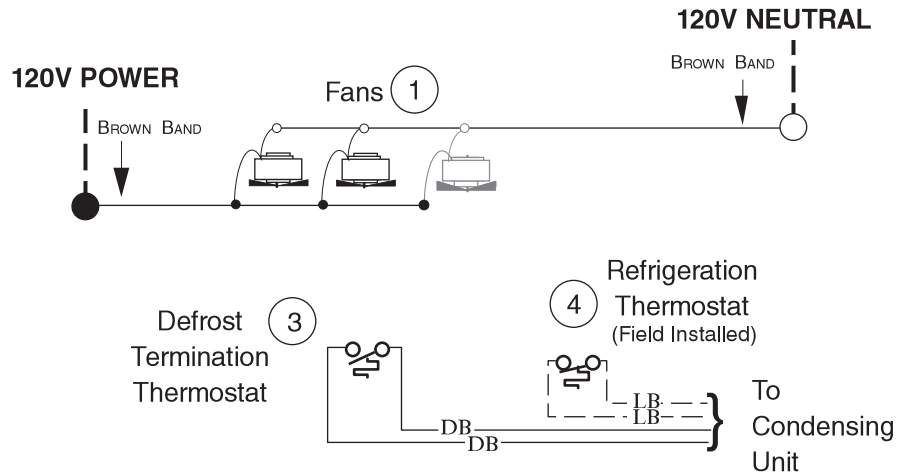
ESTIMATED SHIPPING WEIGHT ⁵						
Case					Solid End	Glass / Plastic End
	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>12 ft</i>	<i>(each)</i>	<i>(each)</i>
lb (kg)	700 (318)	800 (363)	900 (408)	1300 (590)	70 (32)	100 (45)

⁵ Actual weights will vary according to optional kits included.

Fan Wiring Offtime Defrost

4 ft case has 1 Fan
 6 ft case has 2 Fans
 8 ft case has 2 Fans
 12 ft case has 3 Fans

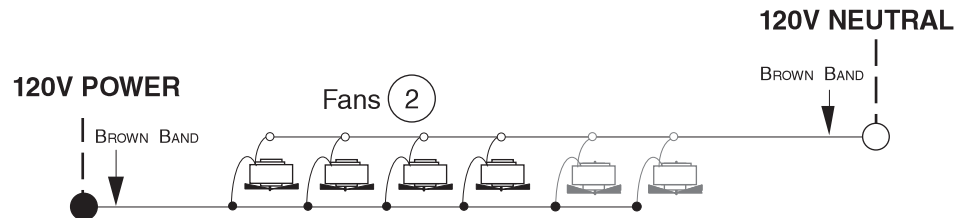
Fans



Ambient Fan Wiring Glass Air Wipe

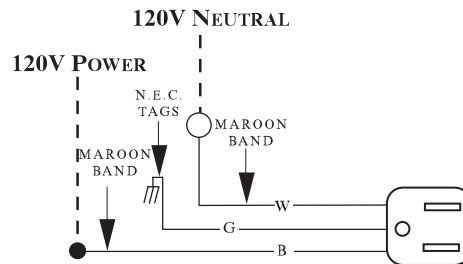
4 ft case has 2 Fan
 6 ft case has 3 Fans
 8 ft case has 4 Fans
 12 ft case has 6 Fans

Fans



Receptacles

Electric Service Receptacle



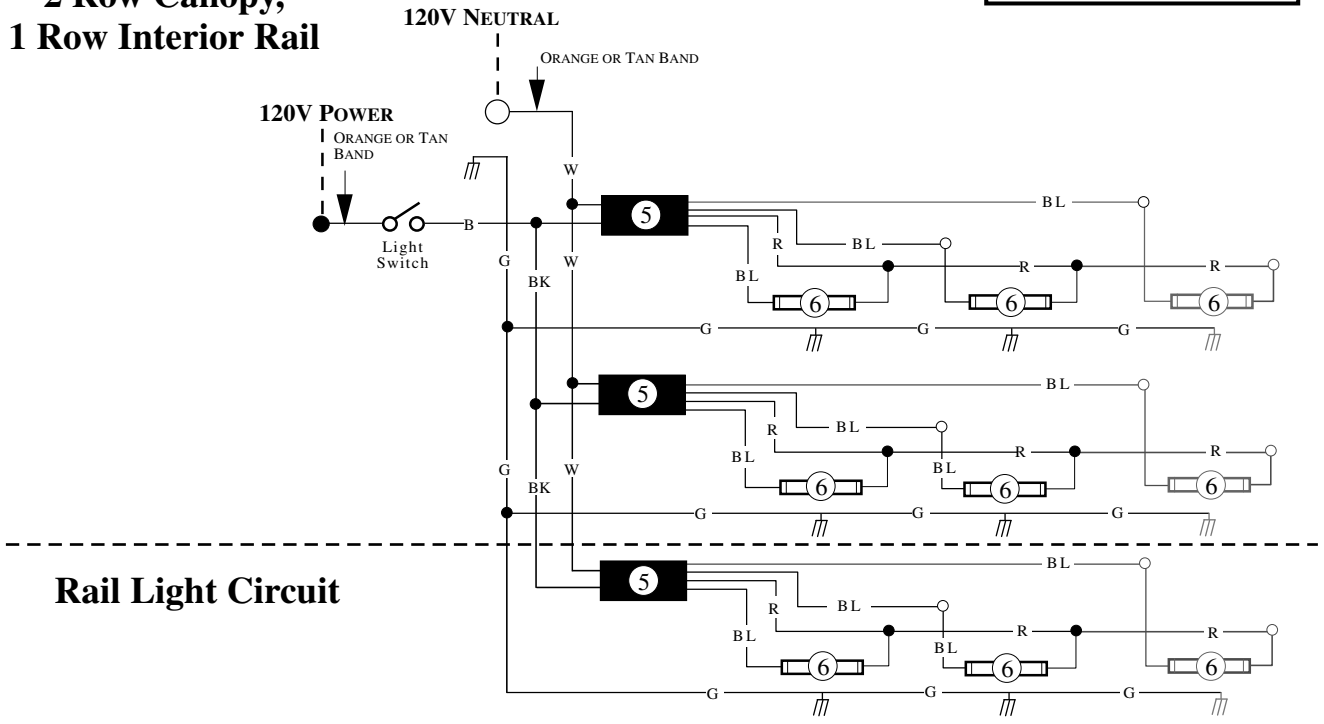
WARNING

All components must have mechanical ground, and the merchandiser must be grounded.
 Circled Numbers = Parts List Item Numbers
 Grayed components in 12 foot models only.

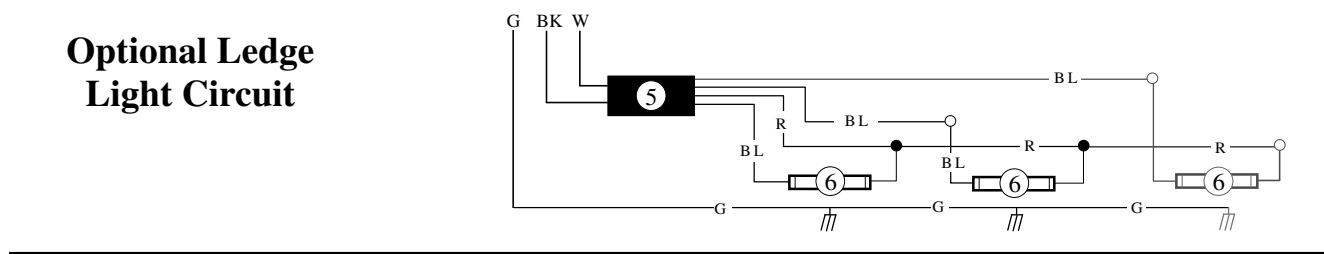
R = Red G = Green BL = Blue LB = Light Blue DB = Dark Blue BK = Black W = White
 ● = 120V POWER ○ = 120V NEUTRAL ≡ = Field GROUND ≡ = Case GROUND

**Standard Lighting
2 Row Canopy,
1 Row Interior Rail**

Light Circuits

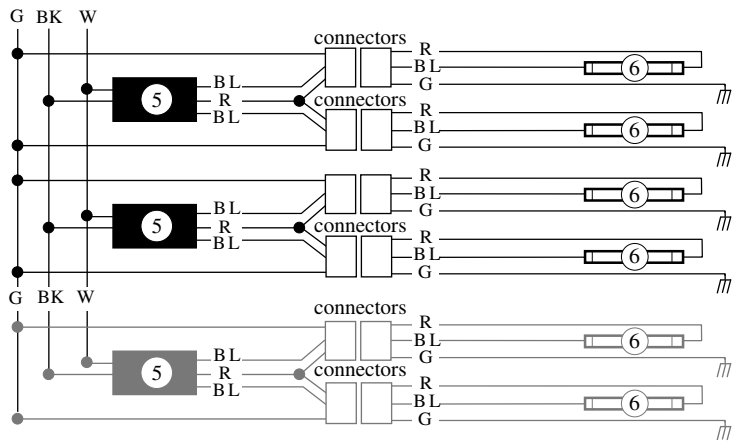


Rail Light Circuit



**Optional Ledge
Light Circuit**

**Optional Shelf Harness
and Light Circuits**



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● = 120V POWER ○ = 120V NEUTRAL ≡ = Field GROUND ≡ = Case GROUND