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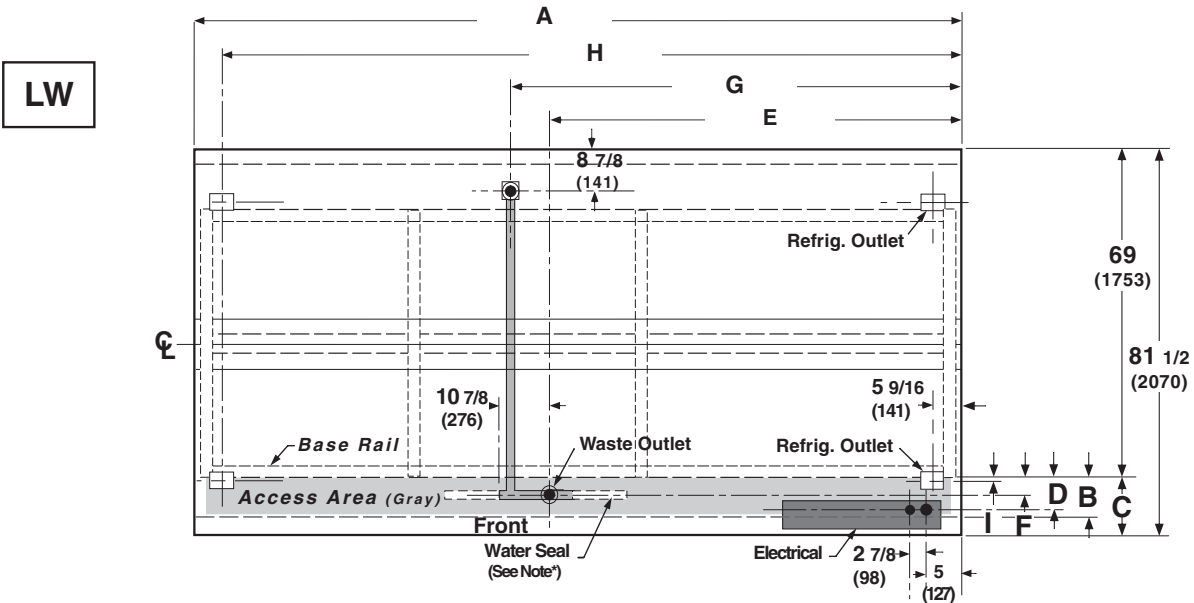
Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
<b>FAN ASSEMBLIES AND THERMOSTATS</b>				<b>HEATERS</b>			
A.	4W Fan Assembly		(1)	E.	0395709	Modular Electric Defrost Heaters, 208V (HE.4850409)	(5)
	0392457	Fan Motor, Standard (MO.4410101)					
	0409511	Fan Blade, embossing toward motor (FB.0409511)					
B.	Optional Adjustable Refrigeration Thermostat		(2)	F.	Drip Pan Heaters, Electric 208V		(6)
					0392413	8 foot case (HE.0392413)	
					0392414	12 foot case (HE.0392414)	
C.	0398557 (Front) Defrost Termination Thermostat (CT.4440611)		(3)		Drip Pan Heaters, Koolgas 120V		(7)
	0398558 (Rear) (Electric Defrost only) (CT.4481088)				0421238	8 foot case (HE.4850496)	
					0421239	12 foot case (HE.4850497)	
D.	0425304 Heater Switch (Koolgas Defrost only) (CT.0425304)		(4)	G.	Nosing Anti-sweat Heaters		(8)
					0401605	8 foot case (Discharge) (HE.0401605)	
					0401557	8 foot case (Return) (HE.4850467)	
					0401606	12 foot case (Discharge) (HE.4850471)	
					0401558	12 foot case (Return) (HE.4850468)	





**NOTE: Revision G corrects heater data on Page 4.**

# Engineering Plan Views

## Single Deck Frozen Food

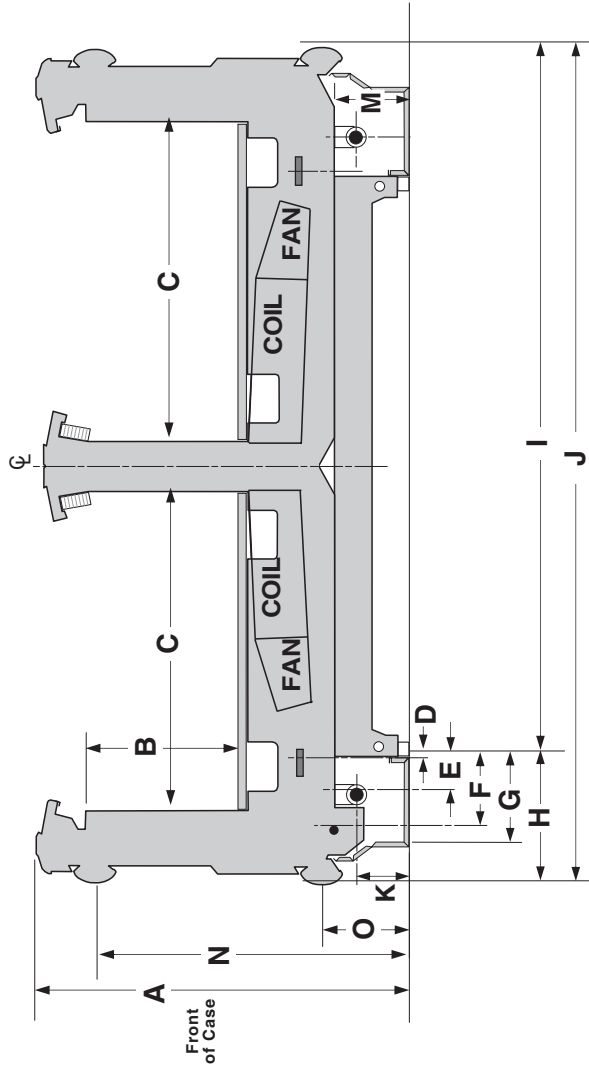
Dimensions shown as inches & (mm).



	8 ft	12 ft
<b>General</b>		
<b>(A)</b> Case Length ( <i>without ends or partitions</i> ) (Each end and insulated partition adds 2 in. (51 mm) to case line up.) Maximum O/S dimension of case back to front ( <i>includes bumper</i> )	96 1/4 (2445)	144 3/8 (3667)
<b>(B)</b> Front of splashguard to O/S edge of front base rail Back of case to O/S edge of front base rail	8 1/2 (216) 69 (1753)	8 1/2 (216) 69 (1753)
<b>(C)</b> Front of case to O/S edge of front base rail Width of base rail Stub-up area (gray) between front base rail and splashguard	12 1/2 (318) 2 1/8 (54) 7 5/8 (194)	12 1/2 (318) 2 1/8 (54) 7 5/8 (194)
<b>Electrical Service</b>  ( <i>Electrical Field Wiring connection point</i> ) RH End of case to center of nearest knockout	5 (127)	5 (127)
<b>(D)</b> Center of knockouts to O/S edge of front base rail	7 (178)	7 (178)
<b>Waste Outlets</b> 		
<b>(E)</b> RH End of case to the center of front waste outlet	58 1/4 (1480)	67 7/8 (1724)
<b>(F)</b> Center of waste outlet to O/S of front base rail	3 3/4 (95)	3 3/4 (95)
<b>(G)</b> RH End of case to center of rear waste outlet Back O/S of case to center of waste outlet	38 (965) 8 7/8 (225)	76 1/2 (1943) 8 7/8 (225)
<b>Water Seal</b> 		
Edge of water seal to center of waste outlet O/S diameter of drip pipe lines Note*: Field installed water seal outlet, tees and connectors are shipped with case.	11 (279) 1 1/2 (38)	11 (279) 1 1/2 (38)
<b>Refrigeration Outlet</b> 		
RH end of case to center of RH front and rear refrigeration outlets	5 1/2 (140)	5 1/2 (140)
<b>(H)</b> LH end of case to center of LH front and rear refrigeration outlets Back O/S of case to center of refrigeration outlet	88 3/8 (2245) 70 1/4 (1784)	138 7/8 (3527) 70 1/4 (1784)
<b>(I)</b> Center of refrigeration outlet to O/S edge of front skidrail	1 1/4 (32)	1 1/4 (32)

**Impact LW**  
**Frozen Food & Ice Cream**

Dimensions shown in inches & (mm).



		A	B	C	D	E	F	G	H	I	J	K	L	M
LW	(in)	35 1/2	14 3/4	32 1/4	1 1/4	3 3/4	7	8 1/2	12 1/2	69	81 1/2	5	-	7
	(mm)	902	375	819	32	95	178	214	318	1753	2070	127	-	178

		N	O
LW	(in)	30	8 1/4
	(mm)	762	210

**REFRIGERATION DATA**

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

	FF	IC
<b>Discharge Air (°F)</b>	-12	-22
<b>Evaporator (°F)</b>	-20	-30
<b>Unit Sizing (°F)</b>	-23	-33
<b>Btu/hr/ft</b>		
<b>Parallel</b>	655	670
<b>Conventional</b>	675	695

**DEFROST DATA**

	FF	IC
<b>Frequency (hr)</b>	24	24
<b>Defrost Water (lb/ft/day)</b>	1.5	1.2

(± 15% based on case configuration and product loading).

<i>ELECTRIC</i>	FF	IC
<b>Temp Term (°F)</b>	48°	48°
<b>Failsafe (minutes)</b>	60	60

<i>GAS</i>	FF	IC
<b>Duration (minutes)</b>	15	18
<b>OFFTIME</b>	Not Recommended	

**Standard Defrost Thermostat**  
Close on rise: close 48°F — open 33°F

**CONVENTIONAL CONTROLS**

<b>Low Pressure Backup Control</b>	FF	IC
<b>CI/CO (Temp °F)*</b>	-27/-39	-27/-39

**Indoor Unit Only, Pressure Defrost Termination (Temp °F)\***  
Not Recommended

\*Use a Temperature Pressure Chart to determine PSIG conversions.

**PHYSICAL DATA**

Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

<b>Estimated Charge (lb)**</b>	
<b>8 ft</b>	3.5
<b>12 ft</b>	5.3

\*\*This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

<b>Length Added to Lineup by:</b>	
<b>Each End/Partition (in.)</b>	1 1/2
<b>Each Contoured End</b>	5

**NSF Certification**

These merchandisers are manufactured to meet ANSI /National Sanitation Foundation (NSF®) Standard #7 requirements.

<b>Impact LW</b> <b>Frozen Food &amp; Ice Cream</b>
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### Electrical Data

	8 ft	12 ft
<b>Number of Fans – 4W</b>	4	6
(Energy Efficient fan motors are not available for End or End-compartment models)		

			Amperes		Watts	
			8 ft	12 ft	8 ft	12 ft
<b>Evaporator Fans</b>						
120V	60Hz	Standard	1.24	1.86	96	144
120V	50Hz	Standard	NA			
230V	60Hz	Export	0.60	0.90	96	144
230V	50Hz	Export	0.72	1.08	108	162
120V	60Hz	Energy Efficient	0.56	0.84	40	60
230V	60Hz	Energy Efficient	NA			

#### Nosing Anti-sweat Heaters (on fan circuit)

120V	60Hz	Standard	1.88	2.80	224	336
230V	50Hz	Export	0.98	1.46	224	336

#### Cycling Anti-sweat Heaters

230V	50Hz	Export	NA			
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#### Minimum Circuit Ampacity

120V	60Hz	Standard	3.32	4.86		
120V	50Hz	Standard	NA			
230V	60Hz	Export	1.78	2.56		
230V	50Hz	Export	1.90	2.74		
120V	60Hz	Energy Efficient	2.64	3.84		
230V	60Hz	Energy Efficient	NA			

#### Maximum Over Current Protection 120V

20      20

#### Maximum Over Current Protection 230V

15      15

#### Electric Defrost Heaters

<u>208V</u>	60Hz	Standard	Front Compartment	8.0	12.0	1670	2505
<u>208V</u>	60Hz	Standard	Rear Compartment	8.0	12.0	1670	2505
230V	50Hz	Export	Front Compartment	8.9	13.3	2047	3060
230V	50Hz	Export	Rear Compartment	8.9	13.3	2047	3060

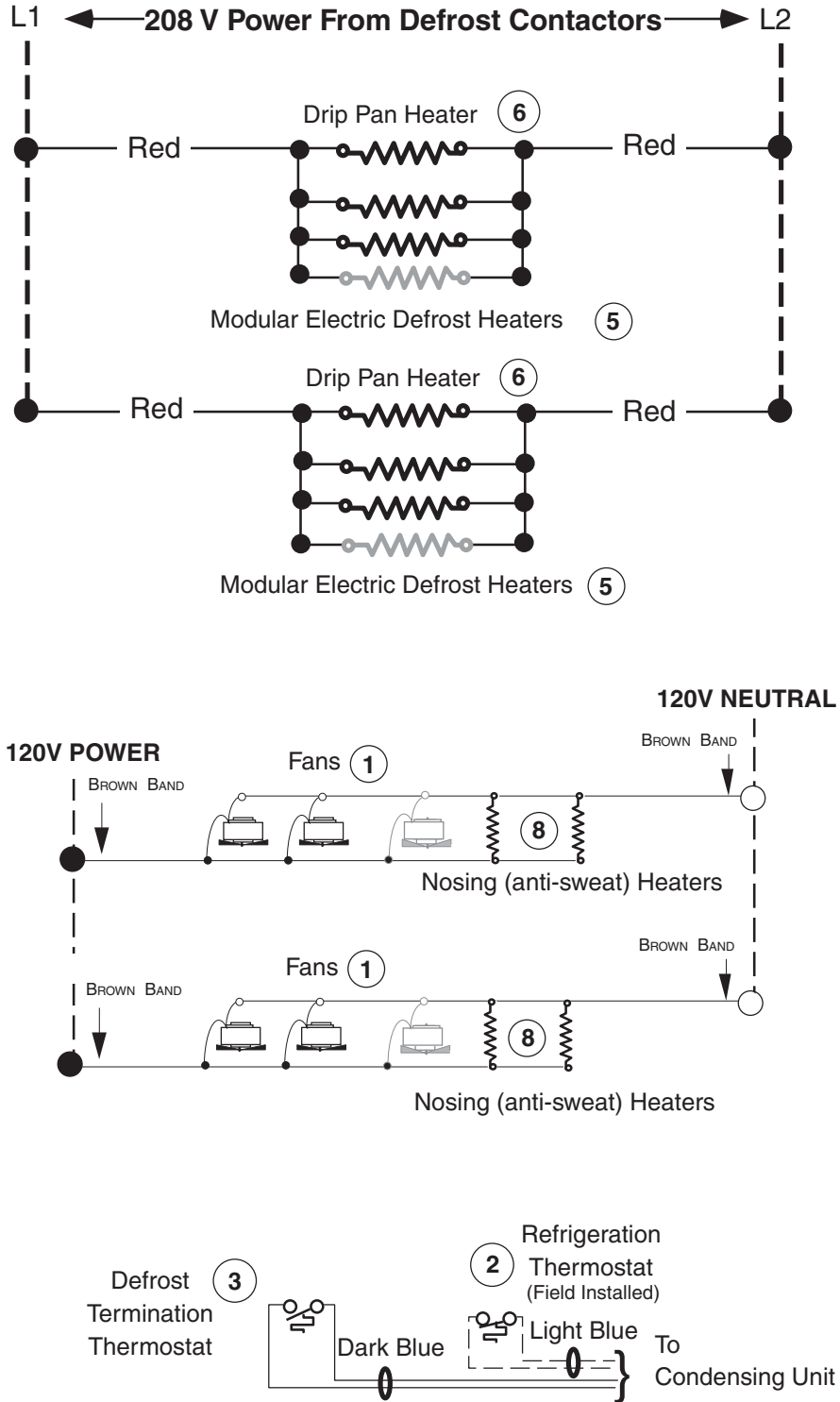
#### Koolgas Drip Pan Heaters

120V	60Hz	Standard		5.0	7.5	600	900
<u>230V</u>	50Hz	Export		NA			

#### Standard Lighting

None

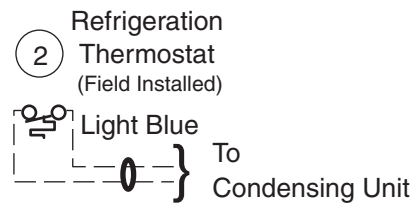
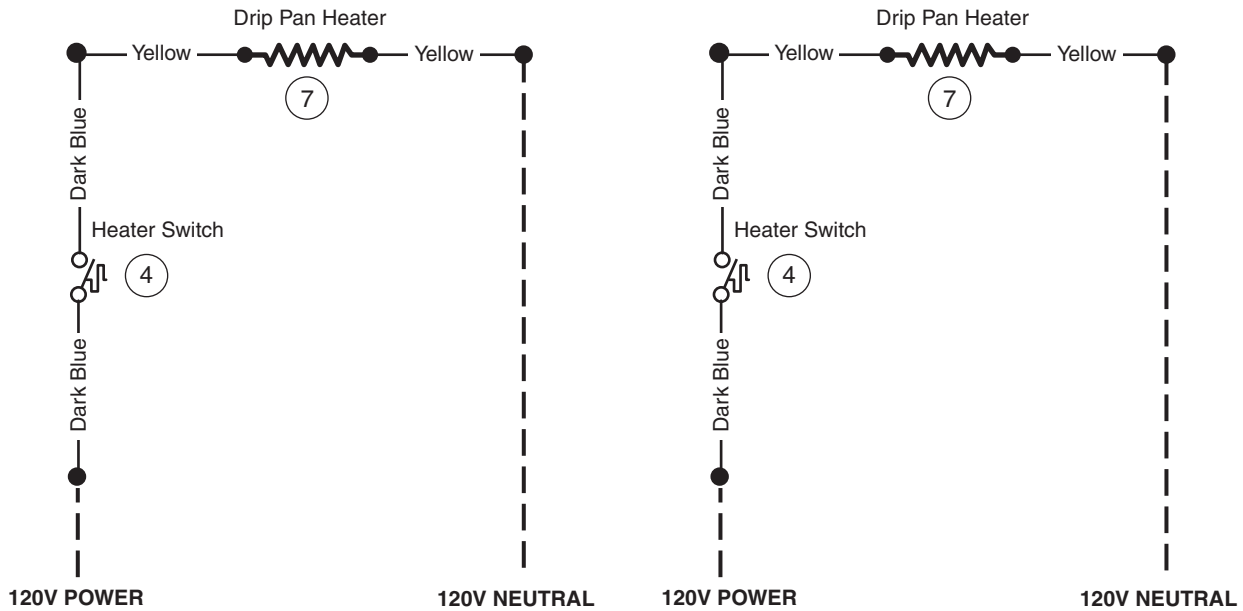
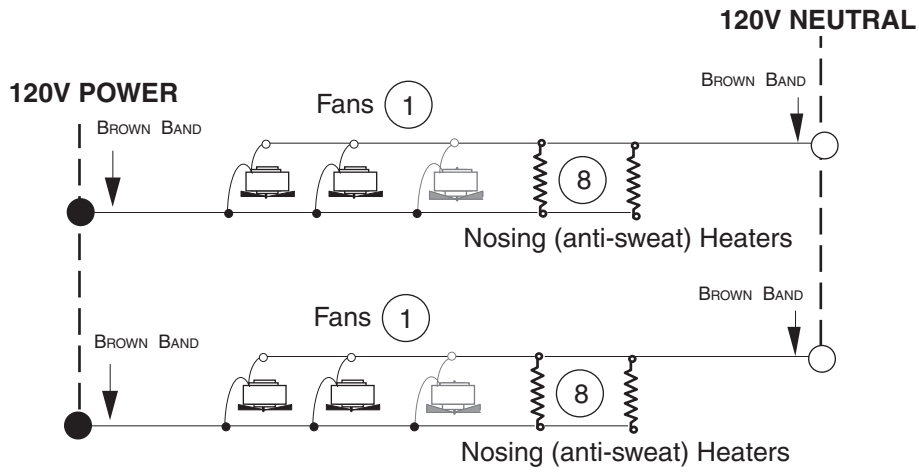
## Electric Defrost – Standard



### 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.

# Gas Defrost – Optional



## 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.