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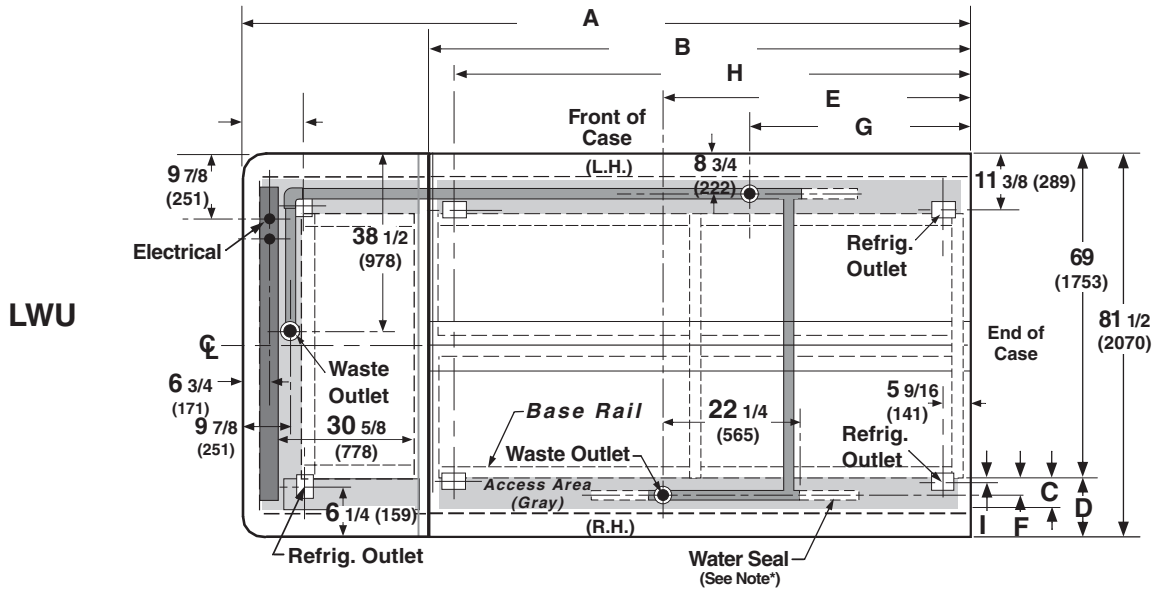
Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
FAN ASSEMBLIES AND THERMOSTATS				HEATERS (CONTINUED)			
A.	4W Fan Assembly		(1)	F.	Drip Pan Heaters, Electric 208V		(6)
	0392457	Fan Motor, Standard (MO.4410101)			0392412	90 inch case (HE.4850461)	
	0409511	Front & Rear — Fan Blade embossing toward motor (FB.0409511)			0392413	138 inch case (HE.0392413)	
	0409513	End Compartment — Fan Blade embossing toward motor (FB.0409513)			0392412	End Compartment (HE.4850461)	
B.	Optional Adjustable Refrigeration Thermostat		(2)	F.	Drip Pan Heaters, Koolgas 120V		(7)
C.	Defrost Termination Thermostat (Electric Defrost only)		(3)		0421237	90 inch case (HE.4850495)	
	0398557	Front & End Compartment (CT.4440611)			0421238	138 inch case (HE.4850496)	
	0398558	Rear (CT.4481088)			0421237	End Compartment (HE.4850495)	
D.	0425304	Heater Switch (Koolgas Defrost only) (CT.0425304)	(4)	G.	Nosing Anti-sweat Heaters		(8)
HEATERS					0401603	90 inch case (Discharge) (HE.4850470)	
E.	Modular Electric Defrost Heaters, 208V		(5)		0401555	90 inch case (Return) (HE.4850465)	
	0395709	Parent (HE.4850409)			0401605	138 inch case (Discharge) (HE.0401605)	
	0406444	End Compartment (HE.4850478)			0401557	138 inch case (Return) (HE.4850467)	
					0401612	End Compartment (Discharge) (HE.0401612)	
					0401555	End Compartment (Return) (HE.4850465)	





NOTE: Revision J corrects heater data on Page 4.

Engineering Plan Views

Single Deck Frozen Food Wide Island with Unitized End

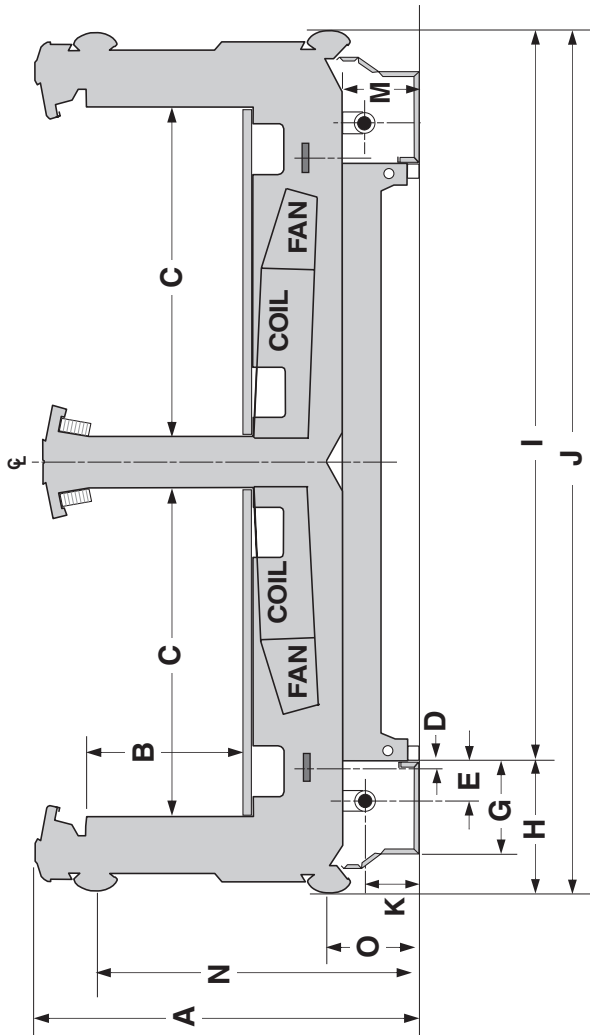
Dimensions shown as inches & (mm).



	U-90	U-138
General		
(A) Case Length (<i>without ends or partitions</i>) (Each end and insulated partition adds 2 in. (51 mm) to case line up.)	89 (2261)	137 1/4 (3486)
(B) End of case to end compartment Maximum O/S dimension of case front to rear (<i>includes bumper</i>)	48 1/4 (1226) 81 1/2 (2070)	96 1/4 (2445) 81 1/2 (2070)
(C) Front of splashguard to O/S edge of base rail Front edge of case to O/S edge of rear base rail	8 1/2 (216) 69 (1753)	8 1/2 (216) 69 (1753)
(D) Rear of case to O/S edge of rear base rail Width of base rail Stub-up area (gray) between front base rail and splashguard	12 1/2 (318) 2 1/2 (64) 7 5/8 (194)	12 1/2 (318) 2 1/2 (64) 7 5/8 (194)
Electrical Service  (<i>Electrical Field Wiring connection point</i>)		
Edge of case to center of knockouts	6 3/4 (172)	6 3/4 (172)
Front O/S edge of case to nearest knockout	9 7/8 (251)	9 7/8 (251)
Waste Outlets 		
(E) End of case to the center of rear waste outlet	10 1/8 (257)	58 1/4 (1480)
(F) Center of waste outlet to O/S edge of rear base rail	3 3/4 (95)	3 3/4 (95)
(G) End of case to center of front waste outlet O/S edge of case to center of waste outlet	38 (965) 8 3/4 (222)	38 (965) 8 3/4 (222)
Water Seal 		
Edge of water seal to center of waste outlet	11 (279)	11 (279)
O/S diameter of drip pipe lines	1 1/2 (38)	1 1/2 (38)
Note*: Field installed water seal outlet, tees and connectors are shipped with case.		
Refrigeration Outlet 		
End of case to center of front and rear refrigeration outlets	5 9/16 (141)	5 9/16 (141)
(H) End of case to center of refrigeration outlets at other end O/S edges of case to center of refrigeration outlets	42 5/8 (1083) 11 3/8 (289)	88 3/8 (2245) 11 3/8 (289)
(I) Center of refrigeration outlet to O/S edge of rear base rail	1 1/4 (32)	1 1/4 (32)



Dimensions shown in inches & (mm).



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

		N	O
LWU	(MM)	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
Discharge Air (°F)	-12	-22
Evaporator (°F)	-20	-30
Unit Sizing (°F)	-23	-33
Btu/hr/case	FF	IC
Parallel		
90 in.	4570	4685
138 in.	7185	7360
Conventional		
90 in.	4720	4835
138 in.	7415	7595

DEFROST DATA

	FF	IC
Frequency (hr)	24	24
Defrost Water (lb/case/day)		
90 in.	12.5	10.0
138 in.	20.0	16.0
(± 15% based on case configuration and product loading).		
ELECTRIC	FF	IC
Temp Term (°F)	48°	48°
Failsafe (minutes)	60	60

GAS
Duration (minutes) 15 18
OFFTIME Not Recommended

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

CONVENTIONAL CONTROLS

Low Pressure Backup Control

	FF	IC
CI/CO (Temp °F)*	-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

Estimated Charge (lb)**

90 in.	3.5
138 in.	5.3

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

Length Added to Lineup by:

Each End/Partition (in.)	1 1/2
Each Contoured End	5

NSF Certification

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

Impact LWU Frozen Food & Ice Cream

Electrical Data

Number of Fans – 4W **90 in. 138 in.**
3 5
 (Energy Efficient fan motors are not available for End or End-compartment models)

			Amperes		Watts	
			90 in.	138 in.	90 in.	138 in.
Evaporator Fans						
120V	60Hz	Standard	0.93	1.55	72	120
120V	50Hz	Standard	NA			
230V	60Hz	Export	0.45	0.75	72	120
230V	50Hz	Export	0.74	1.10	111	165
120V	60Hz	Energy Efficient	0.42	0.70	30	50
230V	60Hz	Energy Efficient	NA			

Nosing Anti-sweat Heaters (on fan circuit)						
120V	50Hz / 60Hz		1.87	2.83	226	338
230V	50Hz / 60Hz		0.98	1.47	226	338

Cycling Anti-sweat Heaters						
120V	50Hz / 60Hz		NA			
230V	50Hz / 60Hz		NA			

Minimum Circuit Ampacity						
120V	60Hz	Standard	3.0	4.58		
120V	50Hz	Standard	NA			
230V	60Hz	Export	2.63	2.42		
230V	50Hz	Export	1.92	2.77		
120V	60Hz	Energy Efficient	2.49	3.73		
230V	60Hz	Energy Efficient	NA			

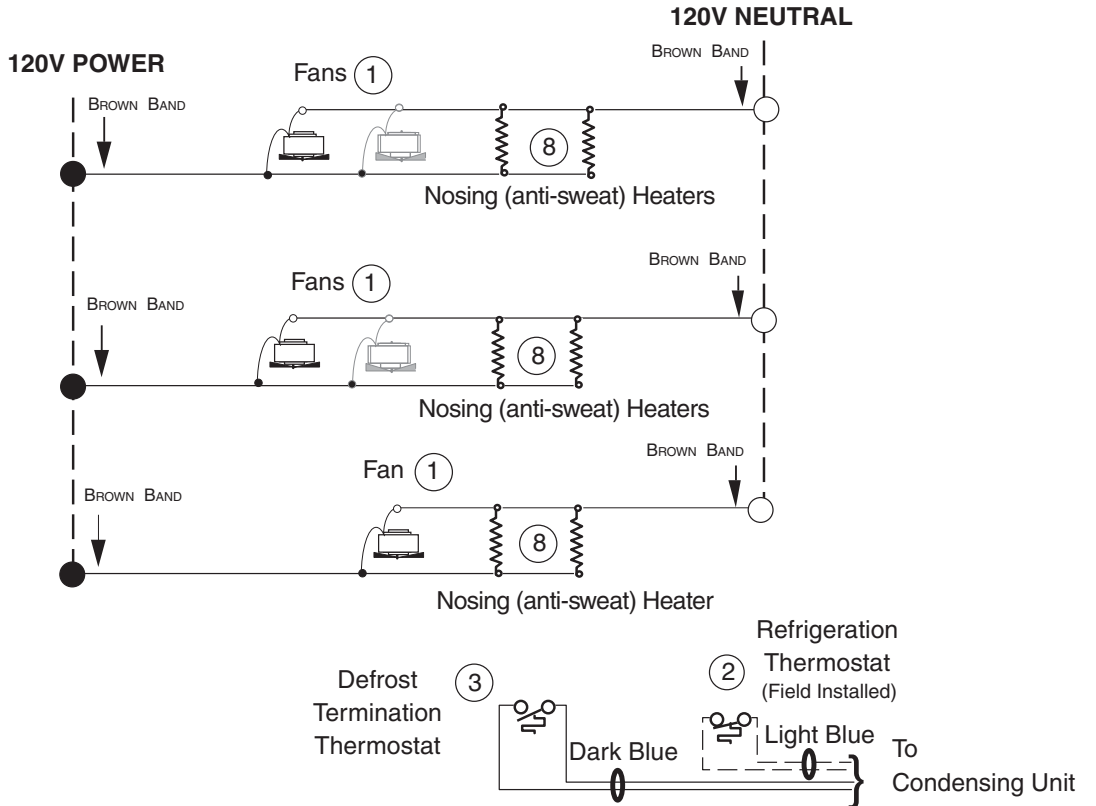
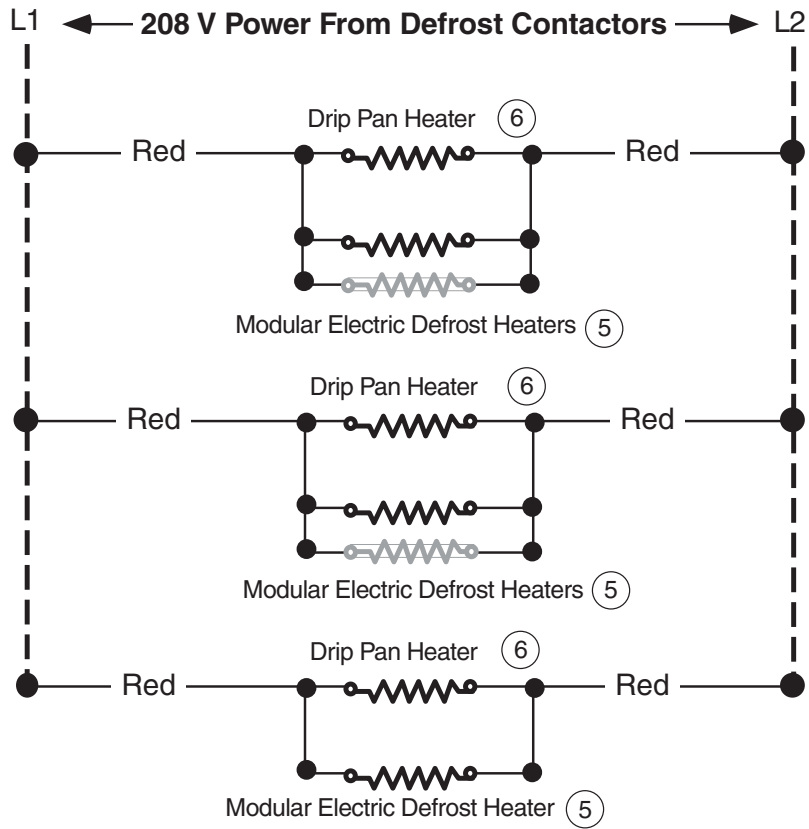
Maximum Over Current Protection 120V	20	20
Maximum Over Current Protection 230V	15	15

Electric Defrost Heaters						
<u>208V</u>	60Hz	Standard	Front Compartment	4.00	8.00	835 1670
<u>208V</u>	60Hz	Standard	Rear Compartment	4.00	8.00	835 1670
<u>208V</u>	60Hz	Standard	End Compartment	5.50	5.50	1150 1150
230V	50Hz	Export	Front Compartment	4.40	8.90	1012 2047
230V	50Hz	Export	Rear Compartment	4.40	8.90	1012 2047
230V	50Hz	Export	End Compartment	6.10	6.10	1403 1403

Koolgas Drip Pan Heaters						
120V	60Hz	Standard		3.75	6.25	450 750
<u>230V</u>	50Hz	Export		NA		

Standard Lighting: None

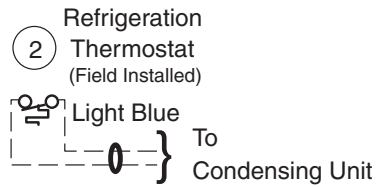
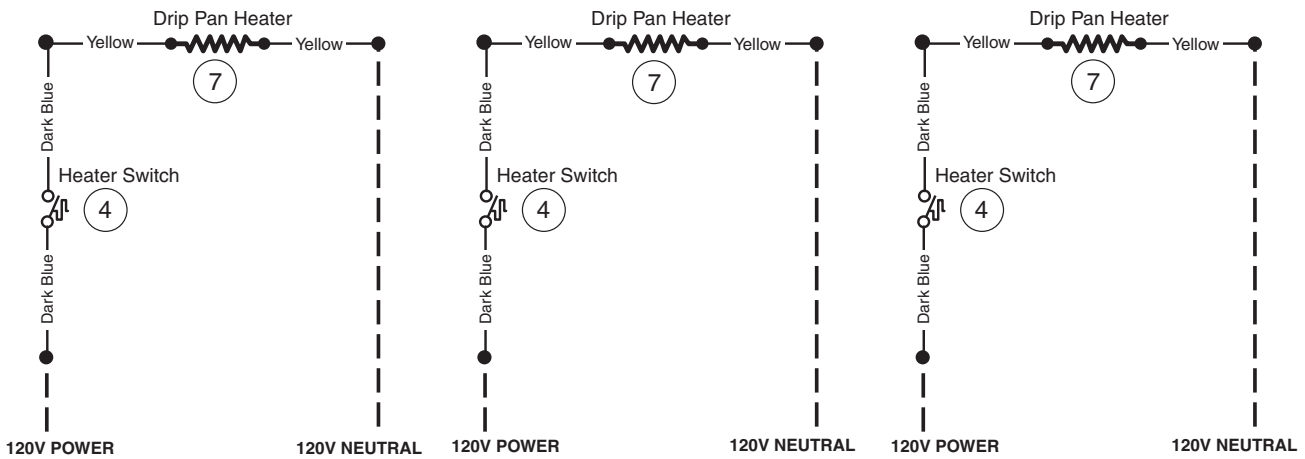
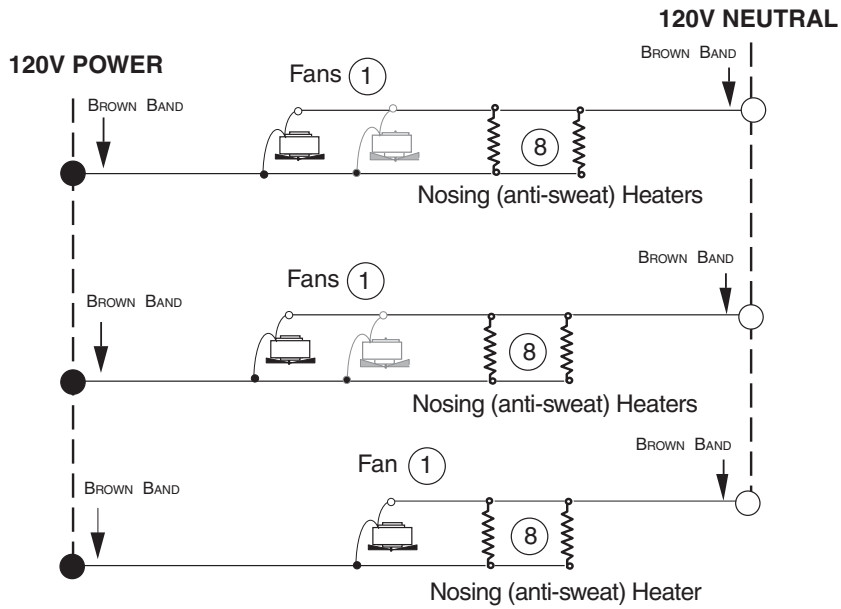
Electric Defrost – Standard



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.
 Circled Numbers = Parts List Item Numbers
 Grayed components in 138 inch 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.