HUSSMANN®

Insight® IDDF5SU

Dairy / Delicatessen / Beverage

with EcoVision Doors

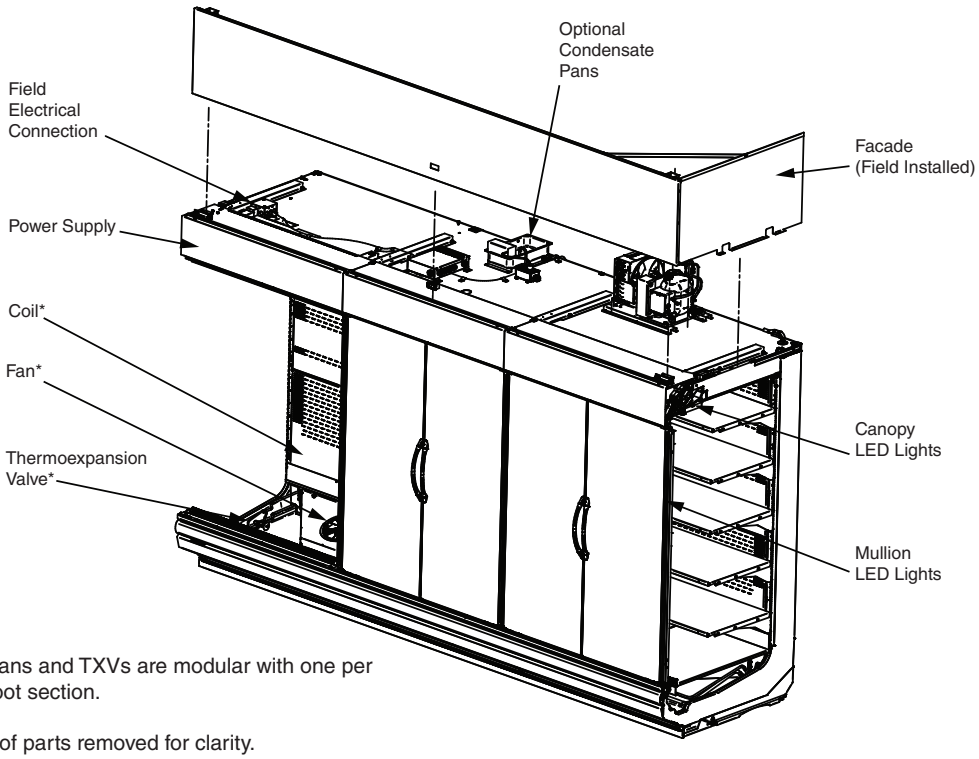
Merchandiser Data Sheet

P/N 3001918_M

NSF® Certified

July 2022

Insight standard electrical field connections are at the top left of the merchandiser



*Coils, fans and TXVs are modular with one per 3 or 4 foot section.

Portion of parts removed for clarity.

12 foot merchandiser shown.

DOE 2017 Energy Efficiency Compliant

NSF Certification

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

IMPORTANT

DRAIN EXTENSION KIT REQUIRED TO PIPE MULTIPLE CASES TO ONE DRAIN, OR TO USE A RAISED HUB DRAIN. SEE PAGE 6 FOR DETAILS.

We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

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Spanish P/N 3001919

Insight **IDDF5SU**
Dairy / Delicatessen

Refrigeration Data [1]

IDDF5SU		Optimal Shelf Life					Energy Comparison
Door Option		EcoVision			EcoVision II HA	EcoVision II HA+	EcoVision II Plus
Application		Dairy/Deli/ Beverage/ Produce	Pegs[3]	Convertible/ Meat	NSF Type 2 Ambient[4]	Harsh Environment	AHRI 1200 Rating Point[5]
Unlit Mullions	Discharge Air °F (°C)	38 (3.33)	36 (2.22)	34 (1.11)	34 (1.11)	33 (0.55)	38 (3.33)
	Average Evaporator °F (°C) [2]	34 (1.11)	33 (0.55)	31 (-0.55)	31 (-0.55)	30 (-1.11)	34 (1.11)
	Parallel Btu/hr/ft (Watts/m)	245 (236)	265 (255)	270 (260)	280 (269)	350 (337)	245 (236)
	Conventional Btu/hr/ft (Watts/m)	250 (241)	270 (260)	275 (264)	285 (274)	360 (346)	250 (241)
Lit Mullions	Discharge Air °F (°C)	37 (2.77)	35 (1.66)	33 (0.55)	33 (0.55)	32 (0)	37 (2.77)
	Average Evaporator °F (°C) [2]	33 (0.55)	32 (0)	30 (-1.11)	30 (-1.11)	29 (-1.67)	33 (0.55)
	Parallel Btu/hr/ft (Watts/m) [6]	272 (262)	292 (280)	297 (285)	306 (294)	369 (355)	272 (262)
	Conventional Btu/hr/ft (Watts/m) [6]	280 (269)	300 (288)	305 (293)	315 (303)	380 (365)	280 (269)
Fan Speed[6]	IDDF5SU6 (8.25")	1500[6]	1500[6]	1500[6]	1500[6]	1500[6]	1500[6]
	IDDF5SU4, 8, 12 (8.25")	1500[6]	1500[6]	1500[6]	1500[6]	1500[6]	1500[6]

Notes:
1. All data based on store temperature and humidity that does not exceed NSF Type 1 ambient conditions of 75°F and 55% relative humidity except where noted.
2. Average evaporator temperature shown. Use dew point for high glide refrigerants for unit sizing. Care should be taken to use the dew point in PT tables for measuring and adjusting superheat. Adjust evaporator pressure as needed to maintain discharge air temperature shown.
3. Hussmann Peg Shelves for Dairy/Deli applications only.
4. Data for operation in NSF Type 2 ambient of 80°F and 55% relative humidity.
5. AHRI 1200 Rating Point for energy consumption comparison only.
6. Some lengths and/or applications require optional fan speed control kits applied by the Hussmann Product Configurator.

Defrost Data

	Type 1	Harsh Environment
Frequency (hours between defrost)	24	12
Offtime **Time (minutes)**	40	30
Electric or Gas	Not Available	
Defrost Water [7]	1.0 lb/ft/day (1.5 kg/m)	2.3 lb/ft/day (3.4 kg/m)

[7] (± 15% based on case configuration and product loading).

Conventional Controls

Low Pressure Backup Control CI/CO [8]
26°F /16°F
–3.3°C / –8.9°C

Indoor Unit Only, Pressure Defrost Termination [8]
48°F (8.9°C)

[8] Use a Temperature Pressure Chart to determine PSIG conversions.

Product Data

Gross Refrigerated Volume [9] ***(Cu Ft/Ft)***	9.89 ft^3/ft (0.92 m^3/m)
AHRI Total Display Area [10] **(*Sq Ft/Ft)***	4.87 ft^2/ft (1.48 m^2/m)
Shelf Area [11] ***(Sq Ft/Ft)***	9.82 ft^2/ft (2.99 m^2/m)

[9] AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft^3/ft [m^3/m]
[10] Computed using AHRI 1200 standard methodology: Total Display Area, ft^2 [m^2]/Unit of Length, ft [m]
[11] Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of 22-in. shelves

Refrigeration Data Continued

Total Working Refrigerant Charge [12]

Air-Cooled
With Recommended Condensing Unit Installed

4 ft	1 lb, 11 oz	/	0.77 kg
6 ft	2 lb, 8 oz	/	1.14 kg
8 ft	3 lb, 6 oz	/	1.55 kg
12 ft	4 lb	/	1.82 kg

Water-Cooled
With Recommended HMDSLMT Condensing Unit Installed

4 ft	2 lb, 10 oz	/	1.18 kg
6 ft	3 lb, 2 oz	/	1.41 kg
8 ft	3 lb, 8 oz	/	1.59 kg
12 ft	4 lb, 14 oz	/	2.22 kg

[12] The Total Refrigerant Charge includes the case and condensing unit. Both ship pre-charged with a portion of the total refrigerant.

Insight IDDF5SU
Dairy / Delicatessen

Insight Multideck Merchandiser, Standard Bottom, EcoVision Doors, Low Height Front, 5 Display Levels

DOE 2017
Energy Efficiency Compliant

Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Dimensions shown as in. and (mm).

Shelf complement shown as tested:

Four rows of 22-in. shelves spaced equally between bottom display pan and interior top panel.

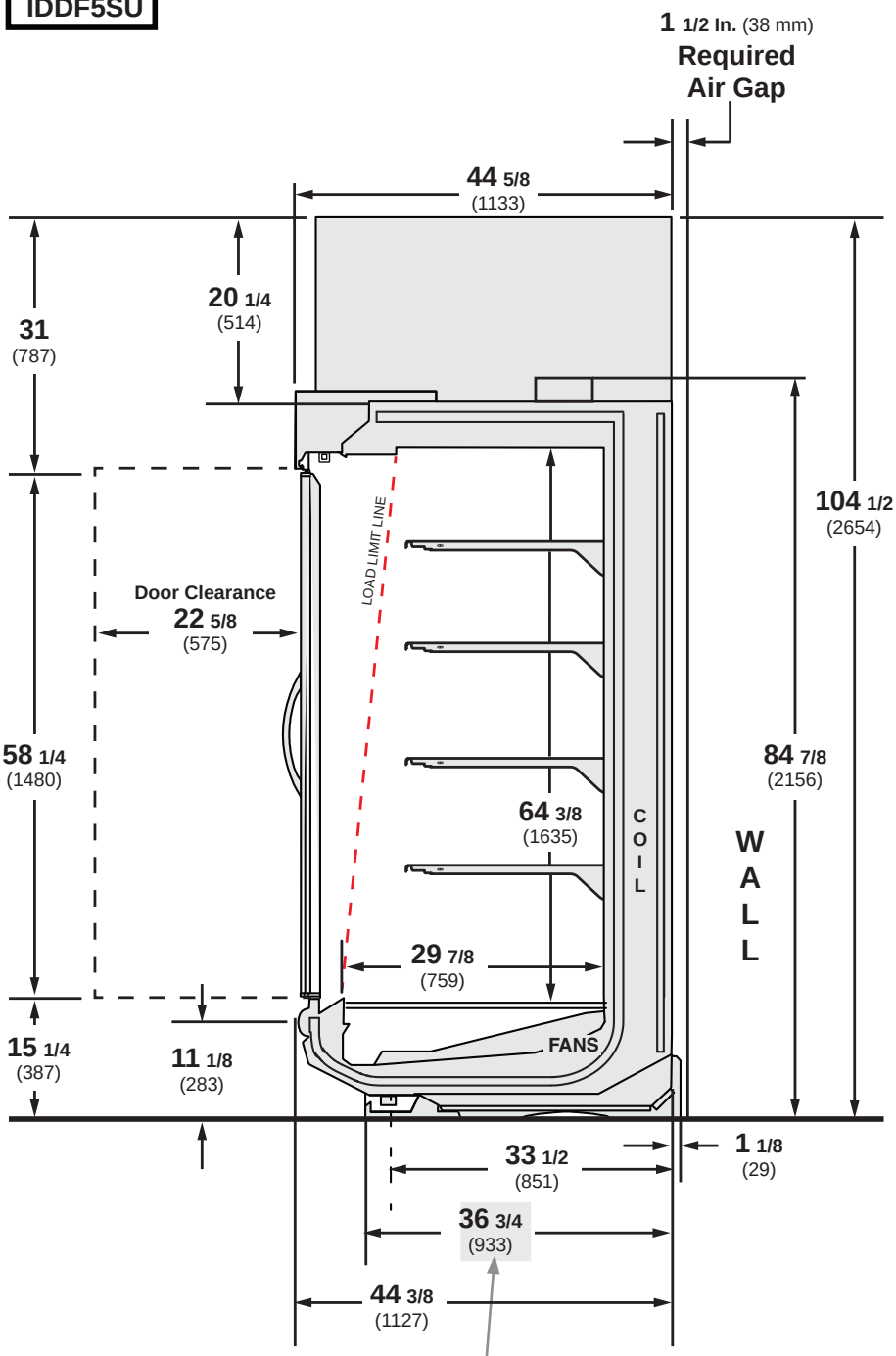
Other optional kits (top piping and vent fans) add to the overall case height.

A minimum 1 ½-in. clearance required to remove raceway cover, 6 ½-in. for full access. See the Installation manual for instructions.

3-in. between back to back cases.

Shown with Flat Front Fascia Option Canopy and Bumper.

IDDF5SU

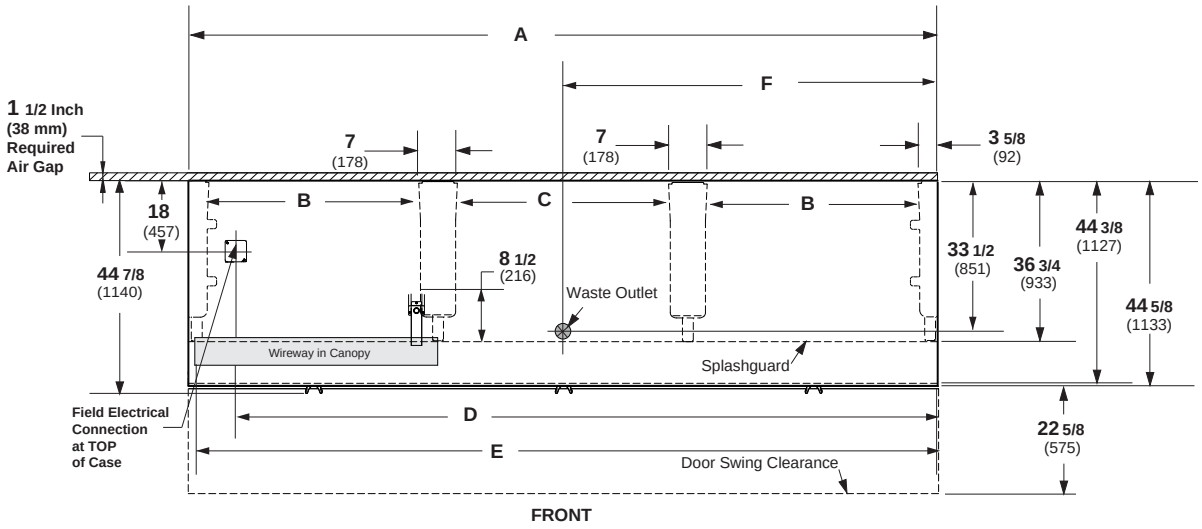


NOTE:
If extended drain kits are used, the distance from back of case (not including air gap) increases to 41 inches. This may affect floor drain layout. See Page 6 for more details.

Engineering
Plan View

WARNING: Floor Drain must be located within 24 inches of Waste Outlet.
See page 6 for Drain Extension Option (must be used with hub-style floor drains).

Dimensions shown as in. and (mm).

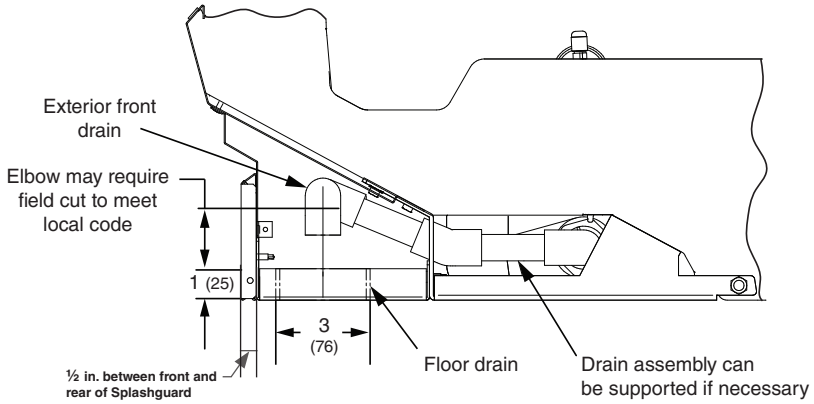


(12 Foot Model shown above)

		4 ft	6 ft	8 ft	12 ft
General					
(A)	Case Length *(without ends or partitions) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)*	48 1/8 (1222)	72 1/4 (1835)	96 1/4 (2445)	144 3/8 (3667)
	Maximum O/S dimension of case back to front *(includes bumper)*	44 3/8 (1127)	44 3/8 (1127)	44 3/8 (1127)	44 3/8 (1127)
	Back of case to front of splashguard	36 3/4 (933)	36 3/4 (933)	36 3/4 (933)	36 3/4 (933)
(B)	Distance between edges of external legs and center legs	NA	29 (737)	41 (1041)	41 (1041)
(C)	Distance between edges of center legs	41 1/8 (1045)	NA	NA	41 1/8 (1045)
	Distance between front legs and splashguard	8 (203)	8 (203)	8 (203)	8 (203)
Electrical Service *(Field Electrical Wiring Connection)*					
(D)	RH End of case to center of Field Electrical Wiring Connection *(top of case)*	39 5/8 (1006)	63 5/8 (1616)	87 7/8 (2232)	135 3/8 (3451)
	Back of case to center of Field Electrical Wiring Connection	20 1/4 (514)	20 1/4 (514)	20 1/4 (514)	20 1/4 (514)
	Length of electrical wireway	44 5/8 (1133)	33 1/2 (851)	45 7/8 (1165)	45 7/8 (1165)
(E)	RH end of case to LH end of electrical wireway *(top of case)*	46 1/2 (1181)	70 1/2 (1791)	94 1/2 (2400)	142 5/8 (3630)
Waste Outlets *(see page 5 for drain extension option)*					
(F)	RH End of case to the center of waste outlet	24 1/8 (613)	24 1/8 (613)	24 1/8 (613)	72 1/4 (1835)
	Back O/S of case to center of waste outlet(s)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)
	Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Floor Drain must be located within 24 inches of Waste Outlet.					

Drain Extension Option

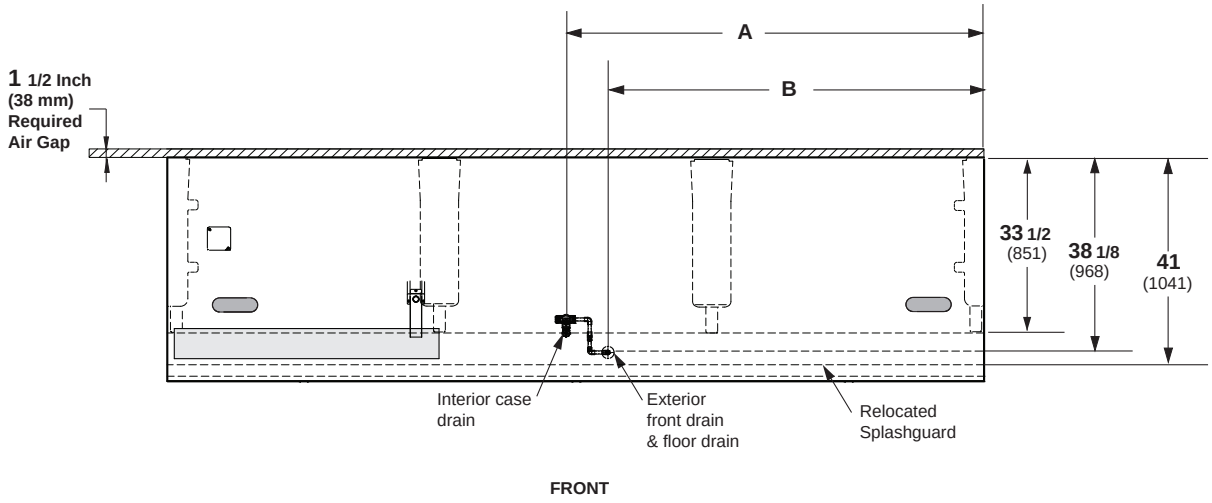
(Partial End View)



IMPORTANT: If hub drain is used in lieu of flush floor sink, a drain extension kit must be installed. Hub drains must be located in front of the waste outlet to achieve adequate air gap.

Engineering Plan View

Dimensions shown as in. and (mm).



(12 Foot Model shown above)

Waste Outlet Drain Option	4 ft	6 ft	8 ft	12 ft
(A) RH of case to center of interior case drain	24 1/8 (613)	24 1/8 (613)	24 1/8 (613)	72 1/4 (1835)
(B) RH of case to center of exterior front drain and floor drain	13 3/4 (349)	13 3/4 (349)	13 3/4 (349)	61 7/8 (1572)

Electrical Data

Number of Fans	**4 ft**	**6 ft**	**8 ft**	**12 ft**
8.25-in.	1	2	2	3

			Amperes				**Watts**			
Evaporator Fan			**4 ft**	**6 ft**	**8 ft**	**12 ft**	**4 ft**	**6 ft**	**8 ft**	**12 ft**
120V	60Hz	Energy Efficient	0.32	0.52	0.64	0.96	17	26	34	51
230V	50/60Hz	Energy Efficient	0.17	0.27	0.33	0.50	17	26	34	51
Condensate Pump										
120V	60Hz		1.9	1.9	1.9	1.9				
230V	60Hz		1.0	1.0	1.0	1.0				
Minimum Circuit Ampacity										
120V	60Hz	Energy Efficient	2.90	3.1	3.22	3.54				
230V	50/60Hz	Energy Efficient	1.62	1.72	1.78	1.95				
Maximum Over Current Protection										
120V			20	20	20	20				
230V			15	15	15	15				

STANDARD LIGHTING

ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIANT WITH THE U.S. DEPT. OF ENERGY (DOE) 2017 REGULATION ARE AVAILABLE FOR SALE FOR USE IN THE U.S.A.

STANDARD LIGHTING								
LED Canopy								
1 Row	0.16	0.26	0.32	0.48	19.3	31.6	38.6	58.0
OPTIONAL LIGHTING								
LED Canopy								
1 Row HO	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4
LED Shelf								
None								
Mullion								
48-in.	0.23	0.40	0.40	0.57	27.3	47.7	47.7	68.2
Frame Anti-Condensate Heaters								
(Only with EcoVision HA+ Door Option)	0.39	0.60	0.65	0.90	50.6	75.5	81.4	112.11

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting
230V Lighting Circuit Total = Multiply 120V Lighting Circuit Total by 0.52

ENDS or PARTITIONS

Each standard end and each insulated partition adds 1 1/2 in. (38 mm) to case line up. Optional view end with end bumper adds 3 3/4 in. (95 mm).

PHYSICAL DATA

Merchandiser Drip Pipe (in.) Schedule 40 PVC	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

ESTIMATED SHIPPING WEIGHT †

Case					Solid End
	4 ft	***6 ft***	***8 ft***	***12 ft***	***(each)***
lb *(kg)*	930 (423)	1150 (521)	1390 (623)	1650 (750)	100 (45)

† Actual weights will vary according to optional kits included.

Shelf Options

Approved shelf sizes for standard (horizontal, 2-3 position brackets) displays:

18-inch
20-inch
22-inch
24-inch

Contact engineering for non-standard (4 position brackets or other) display recommendations.

Minimum number of Shelves: 3

Optimal number of Shelves: 4

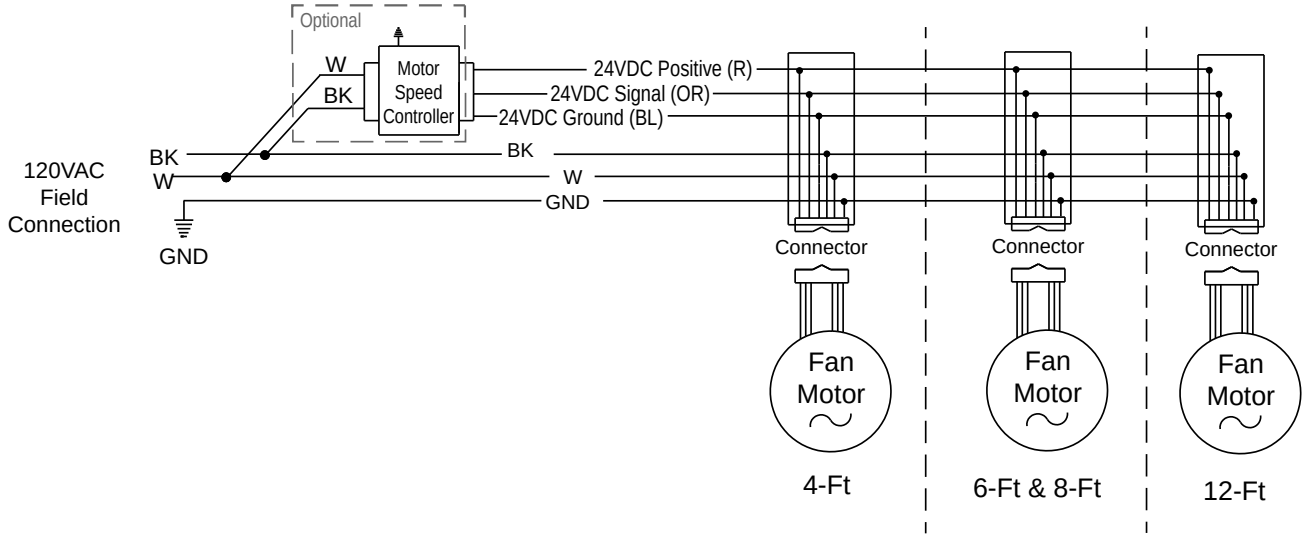
Maximum number of Shelves: 8

Maximum number of Lighted Shelves: 0

Standard shelf complement for test purposes: (4) rows of 22-in. shelves evenly distributed vertically.

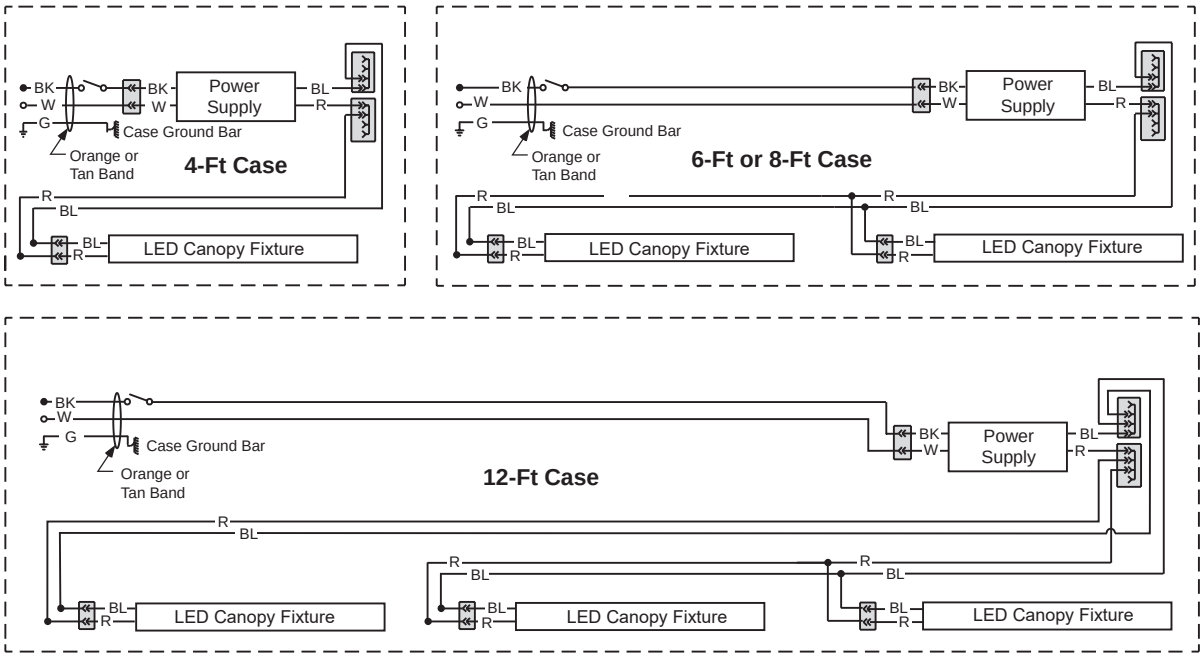
Fan Wiring
Offtime Defrost

Insight IDDF5SU
Dairy / Delicatessen



LED Canopy Light Circuits

LED Canopy Lighting — 1 Row



WARNING

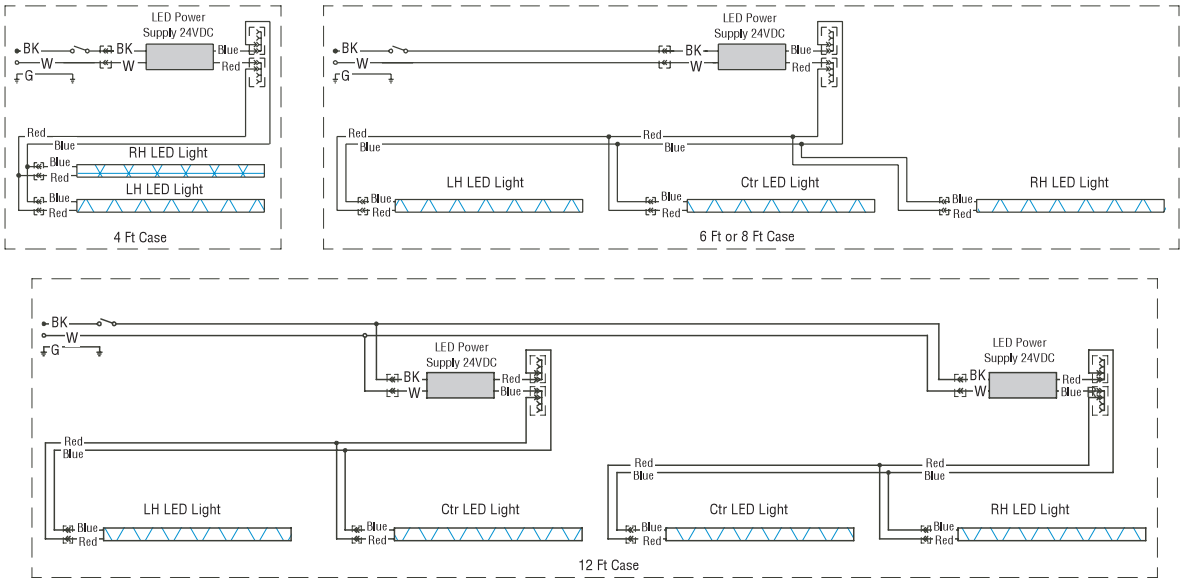
All components must have mechanical ground, and the merchandiser must be grounded.

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

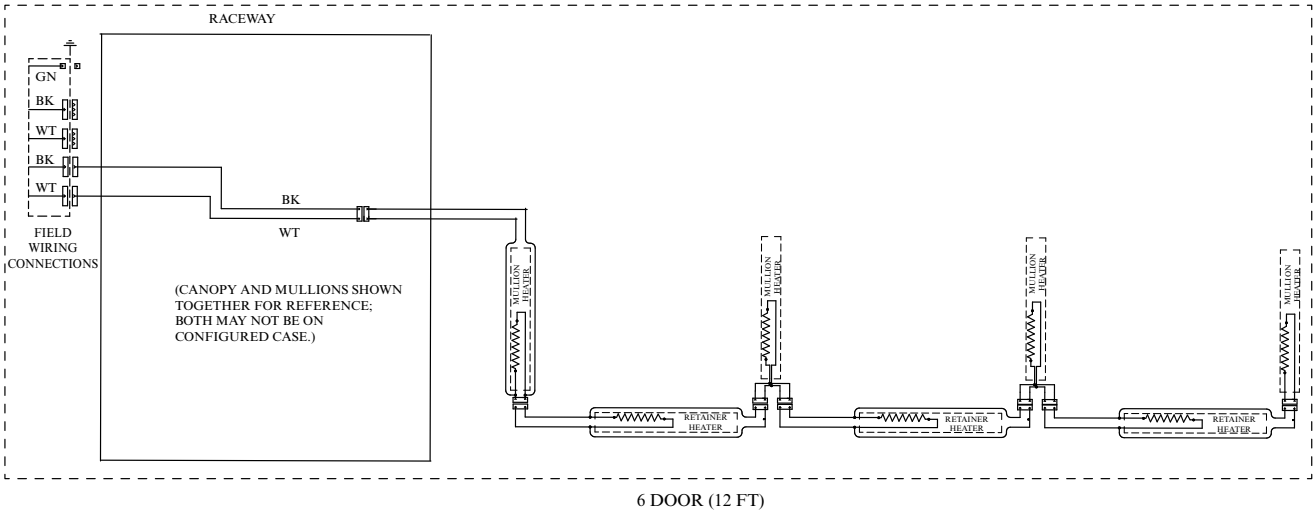
● = 120V POWER ○ = 120V NEUTRAL ⏚ = FIELD GROUND ⫽⫽⫽ = CASE GROUND

Insight IDDF5SU
Dairy / Delicatessen

Mullion LED Lighting



Door Frame Heater
EcoVision HA+ Only



WARNING

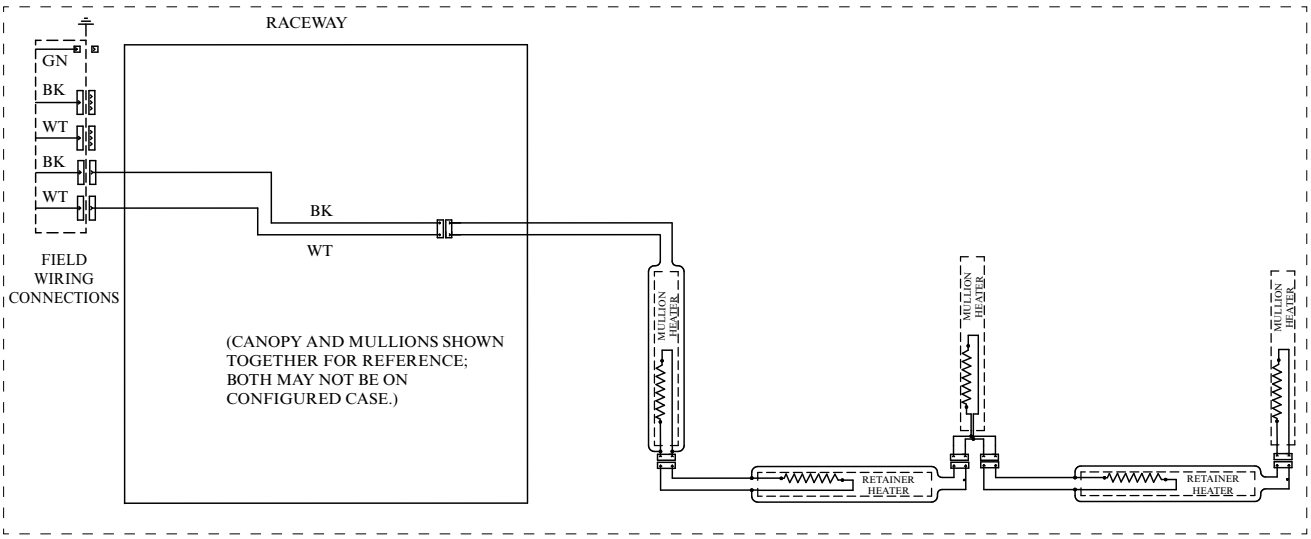
All components must have mechanical ground, and the merchandiser must be grounded.

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

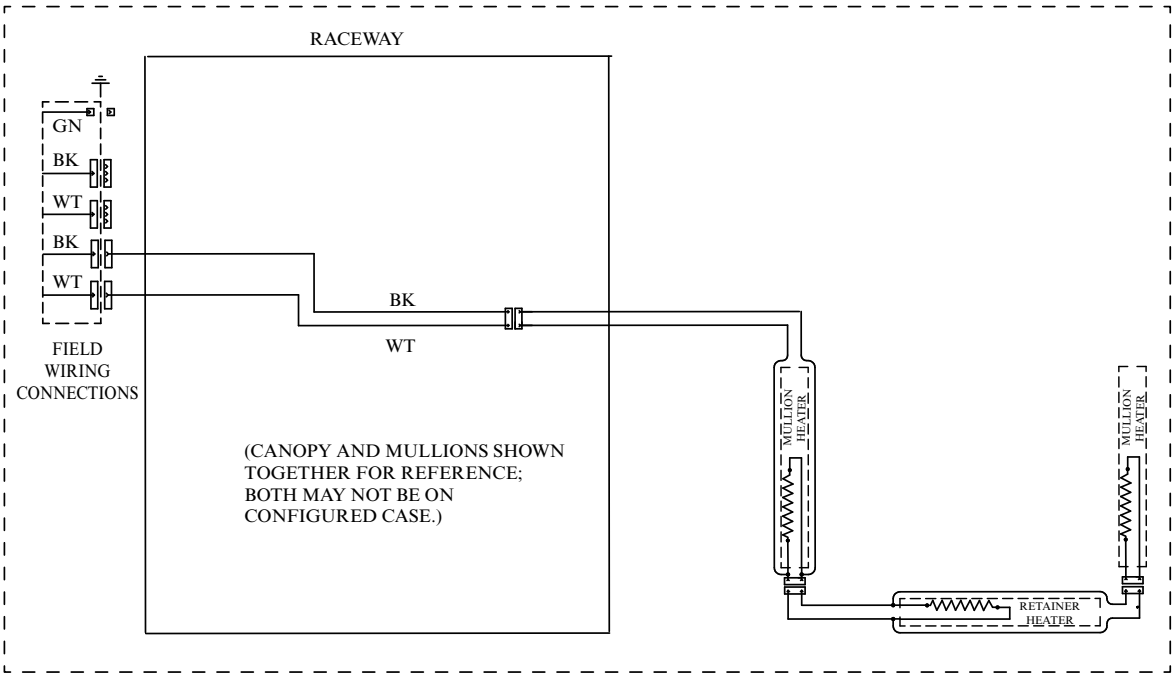
● = 120V Power ○ = 120V Neutral ⏚ = Field Ground = Case Ground

Door Frame Heater
EcoVision HA+ Only

Insight IDDF5SU
Dairy / Delicatessen



3 DOOR / 4 DOOR (6 FT / 8 FT)



2 DOOR (4 FT)

WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

● = 120V Power ○ = 120V Neutral ⏚ = Field Ground ⏦ = Case Ground

Estimating Refrigeration and Electrical Load (for comparison purposes only)

Case Btu
To determine Btu for a case, refer to the performance data chart on Page 2. Select lit or unlit shelves, then select the type of remote refrigeration system (parallel or conventional), which will give Btu/hr/ft. Multiply this number by the length of the case to determine Btu per hour.

Case Electrical
Refer to store legend to determine number of circuits. Lighting should be specified in store legend.

Fan electrical load for a case is computed by selecting the case length and fan voltage on Page 6. For example, a 12 ft case uses 3 fans. The store legend specifies fans on a 230V circuit. In this instance, fans use 0.50 Amps and the MCA is 1.95. When applied, ambient fans, anti-sweat heaters, controllers, etc. must be included in the MCA. Include lights in the MCA if lights are on same circuit.

Lights may be on a separate circuit. To estimate lighting load: select case length (12 ft), canopy lighting [standard or optional] (here 0.70 for standard), and mullion lighting [maximum for which case is wired] (0.57 for EcoShine II 48 mullion lights); then add together [0.48 + 0.57 = 1.05 amps for 120V] (for 230V, multiply 1.05 * 0.52 = 0.55).

Line Sizing — Refer to store legend.
Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.

Scan the QR code with your mobile device to access additional product information or order parts.

Parts may also be ordered at:
parts.hussmann.com
Call toll free: 1.855.487.7778

Revision History

Revision A: March 2016: Original Issue
Revision B: August 2016: Updated cross section and plan view.
Revision C: January 2017: Removed EcoShine “Plus” references.
Revision D: April 2017. Updated LED energy values.
Revision E: April 2017. Updated LED energy values.
Revision F: September 2017. Updated notes page.
Revision G: May 2018: Updated lighting information.
Revision H: October 2018: Updated refrigerant charges.
Revision J: Changed Defrotst Data
Revision K: August 2020: Updated refrigeration and electrical data; updated wiring diagrams.
Revision L: September 2021: Updated refrigerant charges.
Revision M: July 2022. Added notes for Extended Drain Kit Option.