HUSSMANN®

Insight® IDDF5SU

Dairy / Delicatessen / Beverage
with EcoVision Doors
Merchandiser Data Sheet

P/N 3001918_H
NSF® Certified
October 2018

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

DOE 2017 Energy Efficiency Compliant

INTERTEK ETL LISTED C US

NSF®

Optional Condensate Pans

Field Electrical Connection

Facade (Field Installed)

Power Supply

Coil*

Fan*

Thermoexpansion Valve*

Canopy LED Lights

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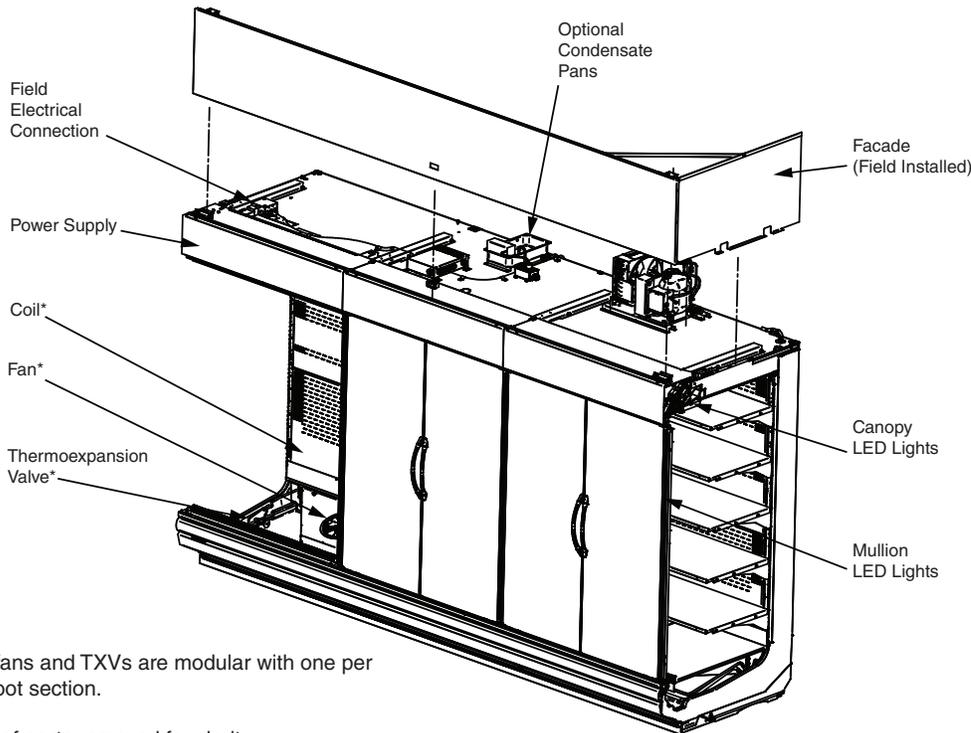
*Coils, fans and TXVs are modular with one per 3 or 4 foot section.

Portion of parts removed for clarity.

12 foot merchandiser shown.

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

IMPORTANT
ONE FLOOR DRAIN IS REQUIRED FOR EACH CASE.

Data sheet-Insight IDDF5SU

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
Frequency (hours between defrost)	
OFFTIME	4
Time (minutes)	20
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

IDDF5SU
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.

Estimated Charge [9]   IDDF5SU

4 ft	1.7 lb	27.2 oz	0.77 kg
6 ft	2.5 lb	40 oz	1.13 kg
8 ft	4.75 lb	76 oz	2.15 kg
12 ft	4.3 lb	68.8 oz	1.95 kg

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

Product Data

Gross Refrigerated Volume [10] (Cu Ft/Ft)	9.89 ft³/ft (0.92 m³/m)
AHRI Total Display Area [11] (Sq Ft/Ft)	4.87 ft²/ft (1.48 m²/m)
Shelf Area [12] (Sq Ft/Ft)	9.82 ft²/ft (2.99 m²/m)

[10] AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
[11] Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
[12] Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of 22-in. shelves

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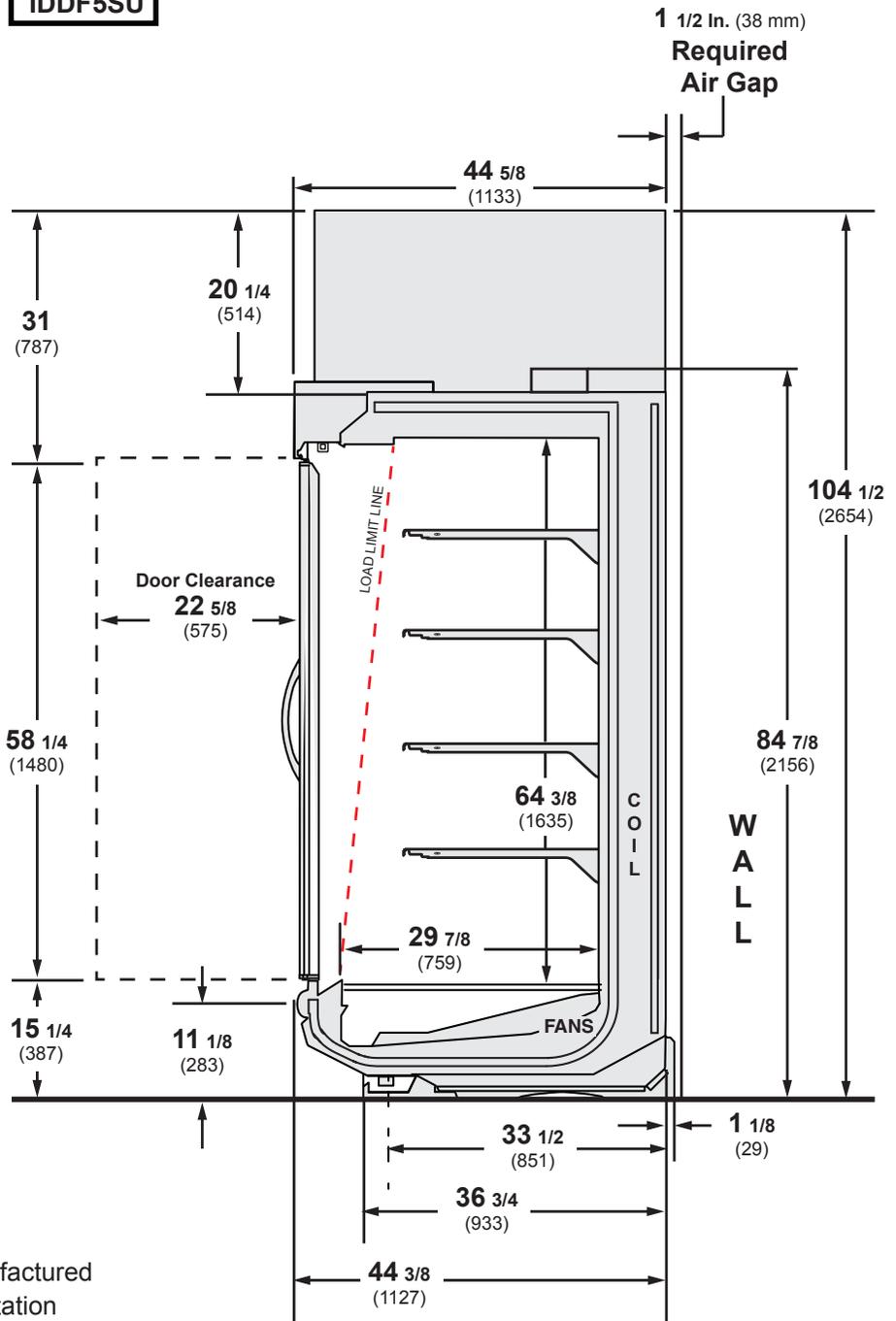
Other optional kits (top piping and vent fans) add to the overall case height.

A minimum 1 ¹/₂-in. clearance required to remove raceway cover, 6 ¹/₂-in. for full access. See the Installation manual for instructions.

3-in. between back to back cases.

Shown with Ellipse Option Canopy and Bumper.

IDDF5SU

1 1/2 In. (38 mm)
Required Air Gap

44 **5/8**
(1133)

20 **1/4**
(514)

31
(787)

104 **1/2**
(2654)

Door Clearance
22 **5/8**
(575)

LOAD LIMIT LINE

84 **7/8**
(2156)

58 **1/4**
(1480)

64 **3/8**
(1635)

C O I L

W A L L

29 **7/8**
(759)

15 **1/4**
(387)

11 **1/8**
(283)

FANS

1 **1/8**
(29)

33 **1/2**
(851)

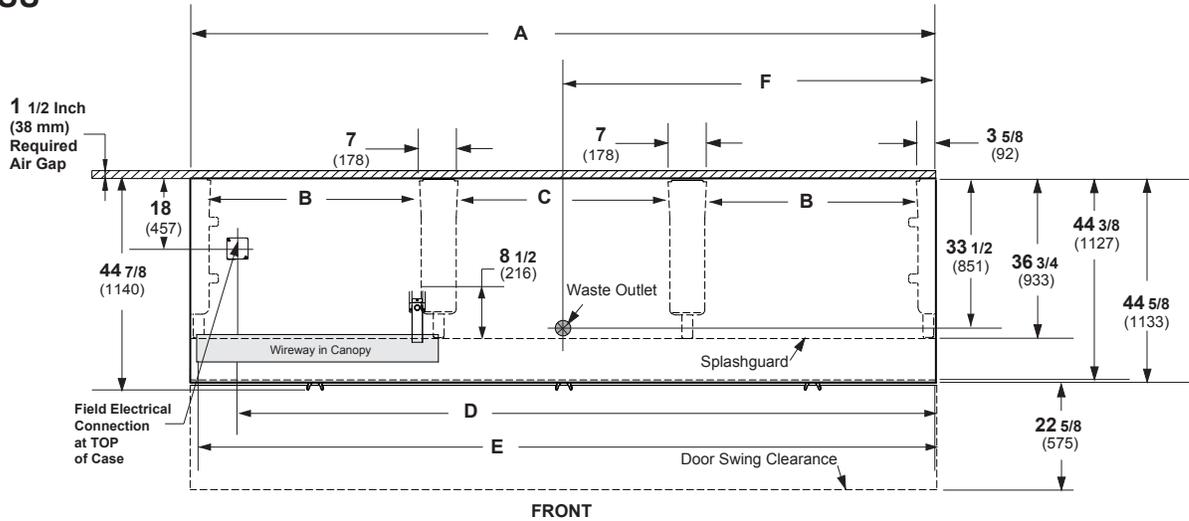36 **3/4**
(933)

44 **3/8**
(1127)

NSF Certification

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

Dimensions shown as in. and (mm).

IDDF5SU

(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)

Exterior front drain

Elbow may require field cut to meet local code

1 (25)

3 (76)

Floor drain

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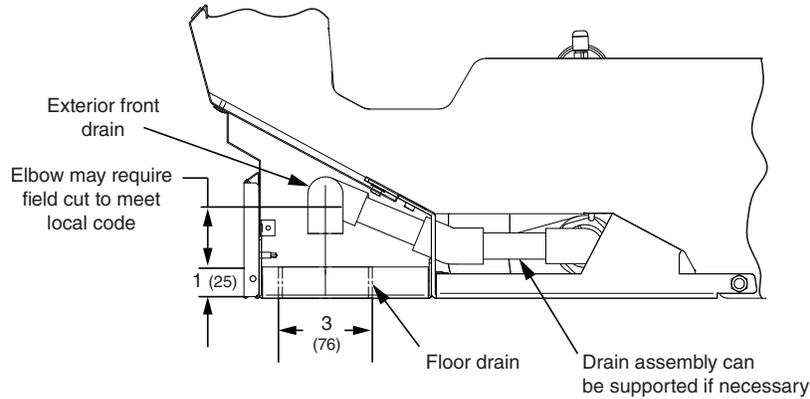
IMPORTANT: If hub drain is used in lieu of flush floor sink, a drain extension kit must be installed. Hub drains must be located in front of the waste outlet to achieve adequate air gap.

Engineering
Plan View

Dimensions shown as in. and (mm).

A

B

1 1/2 Inch (38 mm) Required Air Gap

33 1/2 (851)

38 1/8 (968)

41 (1041)

Interior case drain

Exterior front drain & floor drain

Relocated Splashguard
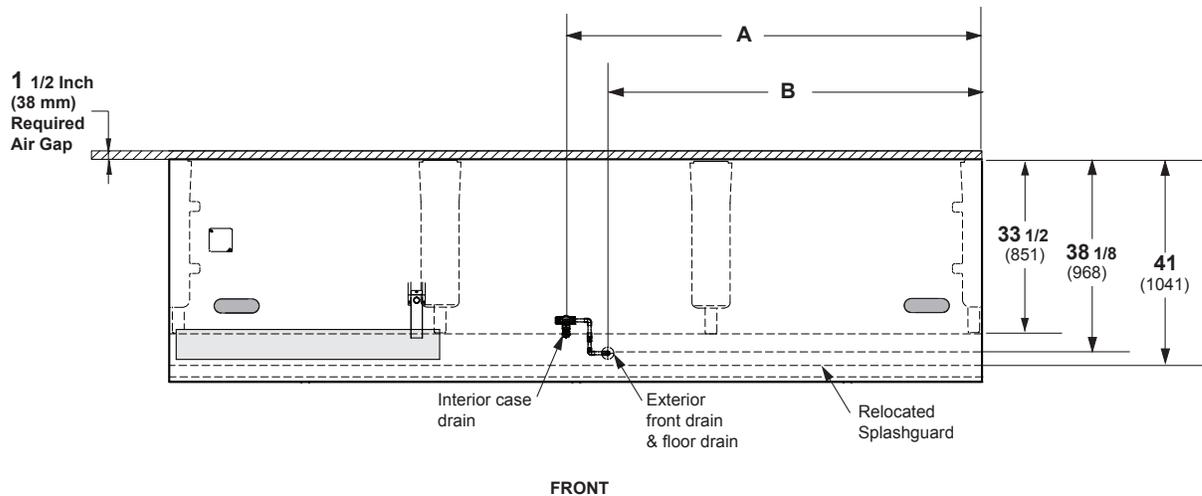
FRONT

(12 Foot Model shown above)

		4 ft	6 ft	8 ft	12 ft
Waste Outlet Drain Option					
(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								
EcoShine II Canopy								
1 Row EcoShine II	0.16	0.26	0.32	0.48	19.3	31.6	38.6	58.0
OPTIONAL LIGHTING								
EcoShine II Canopy								
1 Row EcoShine II HO	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4
Shelf								
None								
Mullion								
EcoShine II 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

<table>
<tr><td colspan="2">

ENDS or PARTITIONS

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

</td></tr>
</table>

PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 $\frac{1}{4}$
Schedule 40 PVC	
Merchandiser Liquid Line (in.)	$\frac{3}{8}$
Merchandiser Suction Line (in.)	$\frac{5}{8}$

ESTIMATED SHIPPING WEIGHT †

Case

	4 ft	6 ft	8 ft	12 ft	Solid End (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.
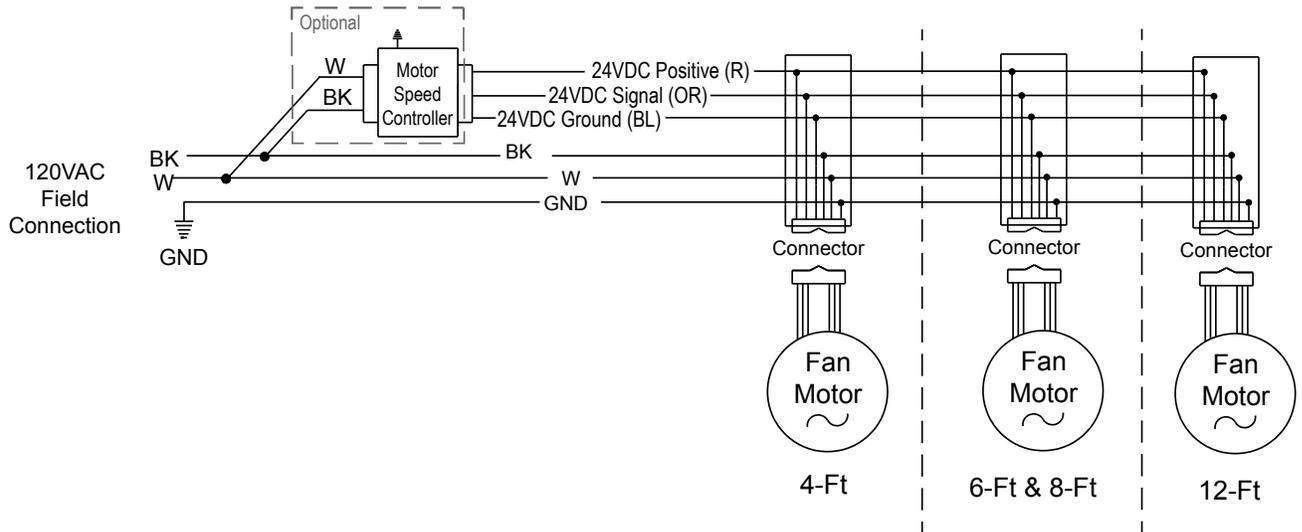
Replacement Parts List

Part #	Description

FAN ASSEMBLIES
Standard HE Fan Assembly
4 Ft, 6 Ft, 8 Ft & 12 Ft

0535563	8.25-in. Fan Assembly
0534013	Fan Speed Controller

FAN SPEED KEY
1500 RPM

0534361	4 ft, 8 ft, 12 ft

THERMOSTATS

    OPTIONAL

LED FIXTURES AND POWER SUPPLY

0501213	Power Supply
	LED Canopy Fixture
	Replace with like fixtures.
	LED Mullion Fixture
	Replace with like fixtures.

Part #	Description

COILS

0534323	4 ft, 8 ft, 12 ft
0534322	6 ft only

HONEYCOMB - WHITE

0536831	4 ft, 8 ft, 12 ft
0536829	6 ft only

THERMO-EXPANSION VALVE

    Pre-set Adjustable
    Varies with Refrigerant and Size

ECOVISION HA+ FRAME HEATERS (OPTIONAL)
4 Ft, 8 Ft & 12 Ft

0549873	Heater - Mullion End LH
0549872	Heater - Mullion Center
0548655	Heater - Retainer Bottom
0549874	Heater - Mullion End RH

6 Ft

0549873	Heater - Mullion End LH
0549875	Heater - Mullion Center
0548656	Heater - Retainer Bottom
0549874	Heater - Mullion End RH

NOTE: For LED lighting parts contact your Hussmann service representative at 1-800-922-1919. Please have your model and serial number available. Descriptions including size and color are at HTTP://WWW.HUSSMANN.COM/ EN/PRODUCTS/LED-LIGHTING/PAGES/DEFAULT.ASPX.

FOR ADDITIONAL PARTS INFORMATION, VISIT
HTTP://WWW.HUSSMANN.COM/EN/PAGES/AFTERMARKET-PARTS.ASPX

Optional

Motor Speed Controller

W
BK

24VDC Positive (R)
24VDC Signal (OR)
24VDC Ground (BL)

BK
W
GND

BK
W
GND

120VAC Field Connection

Connector
Connector
Connector

Fan Motor
Fan Motor
Fan Motor

4-Ft
6-Ft & 8-Ft
12-Ft

LED Canopy Light Circuits

EcoShine II LED Canopy Lighting — 1 Row

Power Supply

4-Ft Case

Case Ground Bar
Orange or Tan Band

LED Canopy Fixture

Power Supply

6-Ft or 8-Ft Case

Case Ground Bar
Orange or Tan Band

LED Canopy Fixture
LED Canopy Fixture

Case Ground Bar
Orange or Tan Band

Power Supply

12-Ft Case

LED Canopy Fixture
LED Canopy Fixture
LED Canopy Fixture

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

Mullion LED Lighting

LED Power Supply 24VDC

BK — BK — Blue
W — W — Red
G

Red
Blue
RH LED Light
LH LED Light
Blue
Red

4 Ft Case

LED Power Supply 24VDC

BK — BK — Blue
W — W — Red
G

Red
Blue
LH LED Light
Blue
Red

Red
Blue
Ctr LED Light
Blue
Red

Red
Blue
RH LED Light
Blue
Red

6 Ft or 8 Ft Case

BK
W
G

LED Power Supply 24VDC
BK — Red
W — Blue

LED Power Supply 24VDC
BK — Red
W — Blue

Red
Blue
LH LED Light
Blue
Red

Blue
Red
Ctr LED Light
Blue
Red

Red
Blue
Ctr LED Light
Blue
Red

Red
Blue
RH LED Light
Blue
Red

12 Ft Case

Door Frame Heater
EcoVision HA+ Only

RACEWAY

GN
BK
WT
BK
WT

FIELD WIRING CONNECTIONS

BK

WT

(CANOPY AND MULLIONS SHOWN TOGETHER FOR REFERENCE; BOTH MAY NOT BE ON CONFIGURED CASE.)

MULLION HEATER

RETAINER HEATER

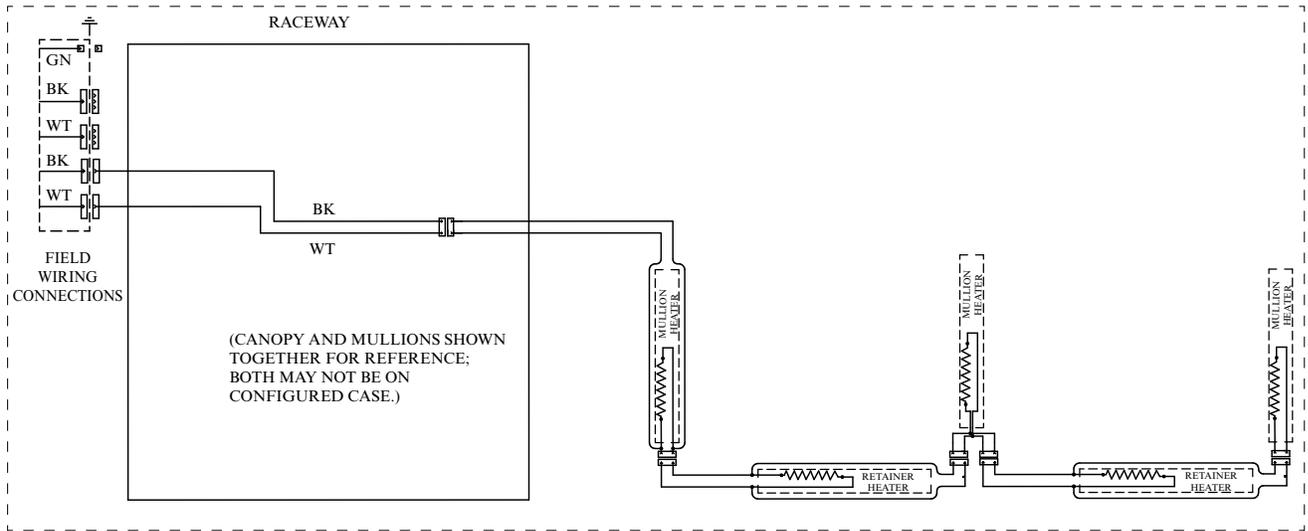6 DOOR (12 FT)

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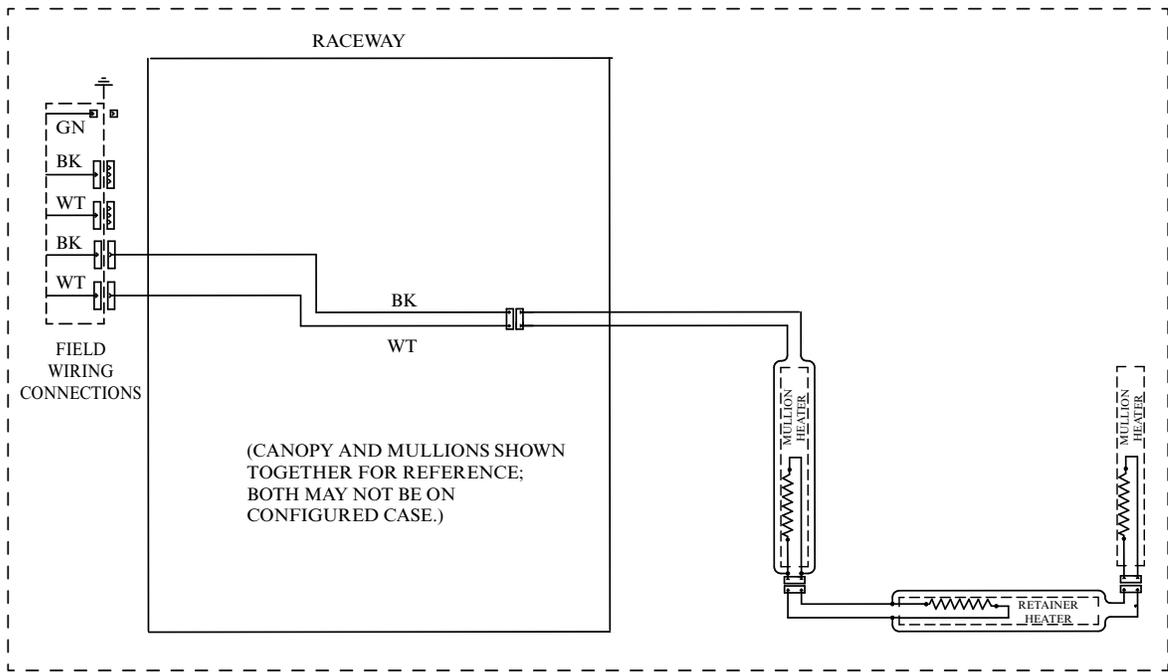All components must have mechanical ground, and the merchandiser must be grounded.

R = Red   Y = Yellow   G = Green   BL = Blue   BK = Black   W = White
● = 120V Power   O = 120V Neutral   ⏚ = Field Ground   ⏚ = Case Ground

RACEWAY

GN
BK
WT
BK
WT

FIELD
WIRING
CONNECTIONS

BK

WT

(CANOPY AND MULLIONS SHOWN
TOGETHER FOR REFERENCE;
BOTH MAY NOT BE ON
CONFIGURED CASE.)

MULLION HEATER

MULLION HEATER

MULLION HEATER

RETAINER HEATER

RETAINER HEATER

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

RACEWAY

GN
BK
WT
BK
WT

FIELD
WIRING
CONNECTIONS

BK

WT

(CANOPY AND MULLIONS SHOWN
TOGETHER FOR REFERENCE;
BOTH MAY NOT BE ON
CONFIGURED CASE.)

MULLION HEATER

MULLION HEATER

RETAINER HEATER

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 QR code to access product information on your mobile device.

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.