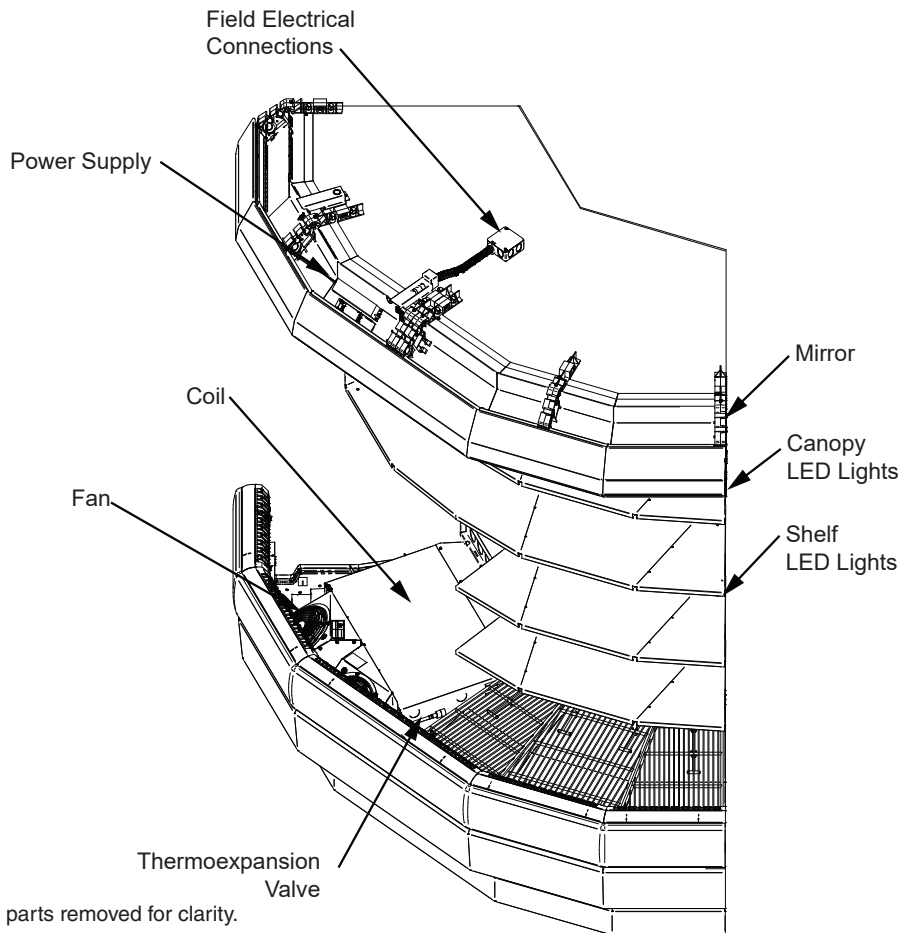




Insight standard field electrical connections are at the top left of the merchandiser



Portion of parts removed for clarity.

Outside 90° wedge merchandiser shown.

NSF Certification

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

Performance Data	Page 2	Estimated Shipping Weights	Page 6
Product Data (AHRI Statistics)	Page 2	Shelf Options	Page 6
Cross Section	Page 3	Replacement Parts List	Page 7
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Data sheet-Insight ID5SMO90X

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.

Insight ID5SMO90X

Dairy / Delicatessen

Refrigeration Data ¹

ID5SMO90X Wedge		Optimal Shelf Life		Energy Comparison
Application		Dairy/Deli/ Beverage/ Produce	Convertible / Meat	AHRI 1200 Rating Point ³
Unlit Shelves	Discharge Air °F (°C)	33 (0.6)	32 (0.0)	35 (1.7)
	Average Evaporator °F (°C) ²	26 (-3.3)	24 (-4.4)	28 (-2.2)
	Parallel Btu/hr/case (Watts/case)	11403 (3342)	15455 (4529)	11000 (3224)
	Conventional Btu/hr/case (Watts/case)	12440 (3646)	16860 (4941)	12000 (3517)
Lit Shelves	Discharge Air °F (°C)	32 (0.0)	31 (-0.6)	34 (1.1)
	Average Evaporator °F (°C) ²	25 (-3.9)	23 (-5.0)	27 (-2.8)
	Parallel Btu/hr/case (Watts/case) ⁴	11513 (3374)	15822 (4637)	11110 (3256)
	Conventional Btu/hr/case (Watts/case) ⁴	12560 (3681)	17260 (5058)	12120 (3552)
Fan Speed ⁵	ID5SMO90X (8.25")	1600 ⁵	1600 ⁵	1600 ⁵

Notes:

- 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.
- 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.
- AHRI 1200 Rating Point for energy consumption comparison only.
- Add 10 Btu/hr/case (2.9 Watts/case) per shelf row for LED shelf light fixtures.
- Some lengths and/or applications require optional fan speed control kits applied by the Hussmann Product Configurator.

Defrost Data

Frequency (hours between defrost) 4

OFFTIME ID5SMO90X
Time (minutes) 20

ELECTRIC OR GAS Not Available

Defrost Water ⁶ 92.2 lb/day
(41.8 kg/day)

⁶ (± 15% based on case configuration and product loading).

Conventional Controls

ID5SMO90X
**Low Pressure Backup
Control CI/CO** ⁷
20°F / 10°F
-6.67°C / -12.2°C

**Indoor Unit Only,
Pressure Defrost
Termination** ⁷
48°F (8.89°C)

⁷ Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge ⁸ ID5SMO90X
O90X 1.2 lb 19.2 oz 0.6 kg

⁸ This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

Product Data

Gross Refrigerated Volume ⁹ (Cu Ft) 87.92 ft³ (2.48 m³)

AHRI Total Display Area ¹⁰ (Sq Ft) 40.54 ft² (3.76 m²)

Shelf Area ¹¹ (Sq Ft) 77.74 ft² (7.22 m²)

⁹ AHRI Gross Refrigerated Volume: Refrigerated Volume, ft³ [m³]

¹⁰ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]

¹¹ Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (5) rows of 20-inch shelves

Insight Multideck Merchandiser, 5 Display Levels,
Standard Bottom, Medium Height Front, Wedge

Insight ID5SMO90X
Dairy / Delicatessen

DOE 2017
Energy Efficiency
Compliant

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

Shelf complement shown as tested:

Five rows of 20-in. shelves spaced equally between bottom display pan and interior top panel.

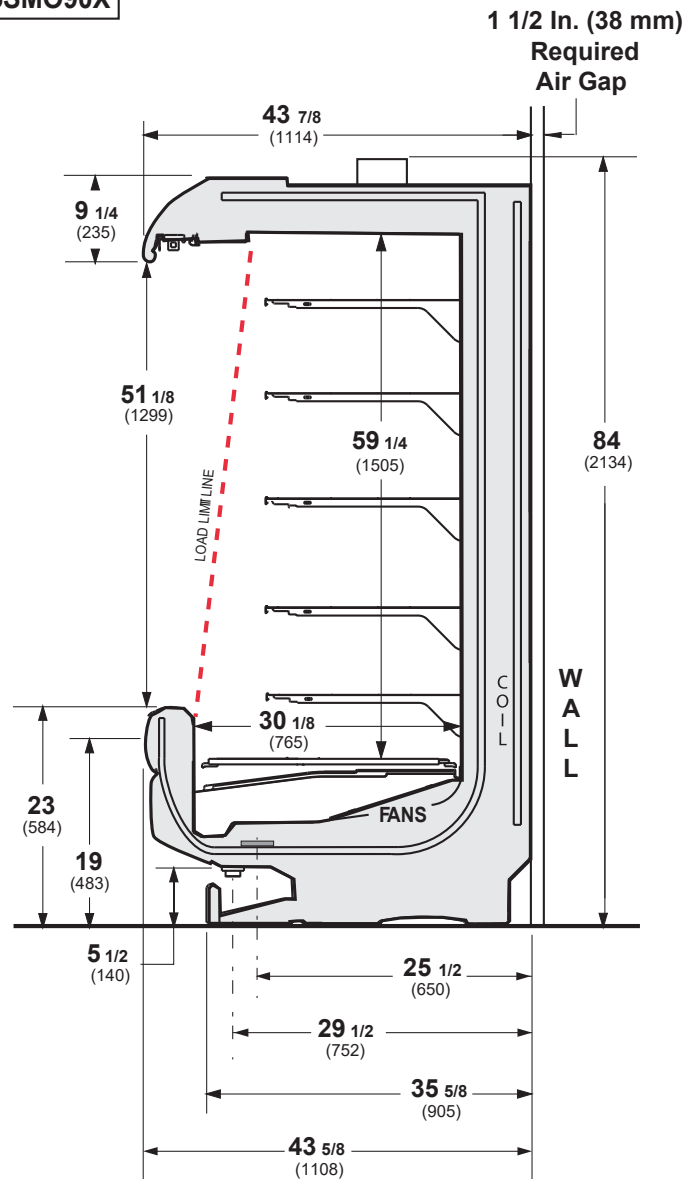
Other optional kits (top piping and vent fans) add to the overall case height.

3-in. between back to back cases.

Shown with Ellipse Option Canopy and Bumper.

Dimensions shown as in. and (mm).

ID5SMO90X



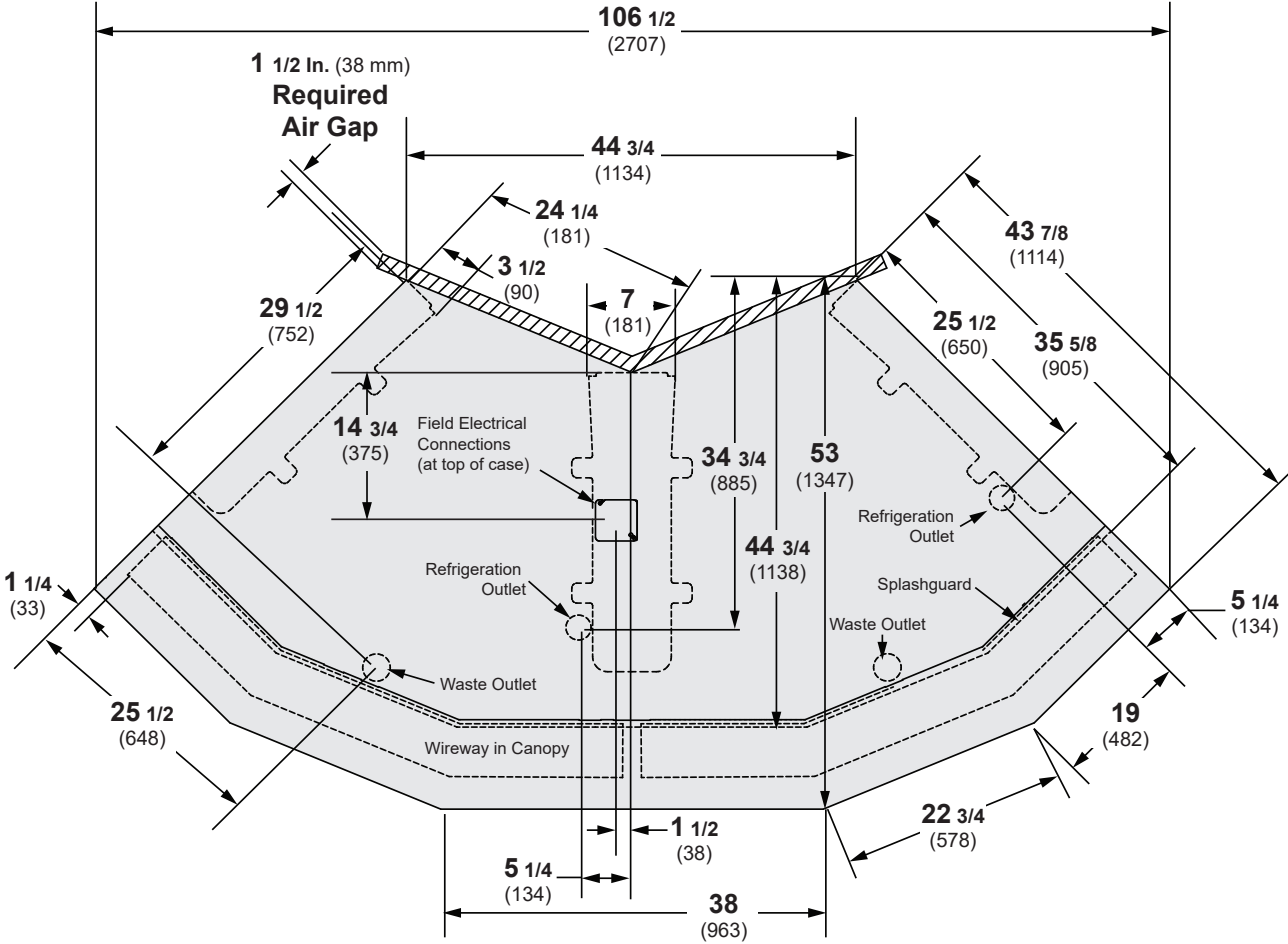
NSF Certification

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

Engineering Plan View

ID5SMO90X

Dimensions shown as in. and (mm).



(ID5SMO90X Wedge shown above)

Electrical Data

Number of Fans	O90X		
8.25-in.	4		
	Amperes		Watts
Evaporator Fan	O90X		O90X
120V 60Hz Energy Efficient	1.48		108
230V 50/60Hz Energy Efficient	0.78		108
Minimum Circuit Ampacity			
120V 60Hz Energy Efficient	1.68		
230V 50/60Hz Energy Efficient	0.98		
Maximum Over Current Protection 120V	20		
Maximum Over Current Protection 230V	15		

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	Amperes	Watts
EcoShine II Canopy	O90X	O90X
1 Row EcoShine II	0.32	38.6
OPTIONAL LIGHTING		
EcoShine II Canopy		
1 Row of EcoShine II HO	0.44	53.0
EcoShine II Shelf		
1 Row of Shelves	0.08	9.9
2 Rows of Shelves	0.16	19.8
3 Rows of Shelves	0.25	29.7
4 Rows of Shelves	0.33	39.5
5 Rows of Shelves	0.41	49.4
6 Rows of Shelves	0.49	59.3
EcoShine II Rail Light		
1 Row	0.13	15.6

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

PHYSICAL DATA

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

ESTIMATED SHIPPING WEIGHT †

Case

O90X

lb (kg)

1300 (591)

† 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: 6

Standard shelf complement for test purposes: (5) 20-in. shelves, evenly distributed vertically

Replacement Parts List

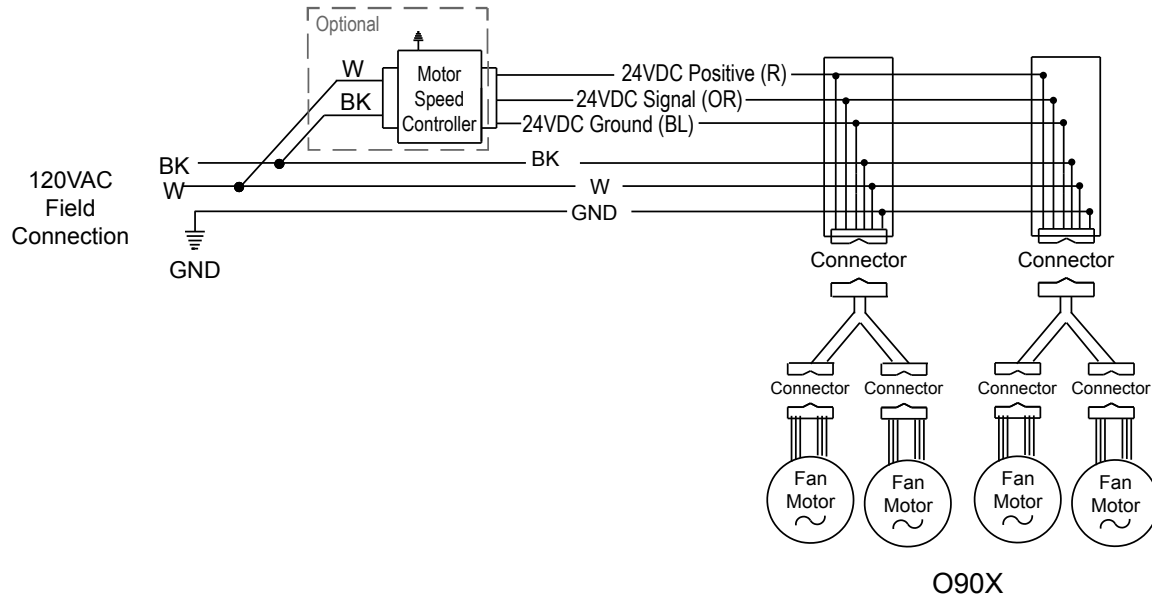
Part #	Description	Part #	Description
FAN ASSEMBLIES		COILS	
O90X			
Standard HE Fan Assembly		0547193	O90X
0535563	8.25-in. Fan Assembly	HONEYCOMB - WHITE	
		3036371	Left
		3036372	Right
		3036373	Center (Left/Right)
		3039418	Center
THERMOSTATS		OTHER	
OPTIONAL		0534013	Fan Speed Selector
		0534363	Fan Speed Key 1600 RPM
		Varies	Thermo-expansion Valve
LED FIXTURES AND POWER SUPPLY			
3018291	Power Supply		
	LED Canopy Fixture		
	<i>Replace with like fixtures.</i>		
	LED Shelf Fixture		
	<i>Replace with like fixtures.</i>		
	LED Rail Fixture		
	<i>Replace with like fixtures.</i>		

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](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](http://www.hussmann.com/en/pages/aftermarket-parts.aspx)

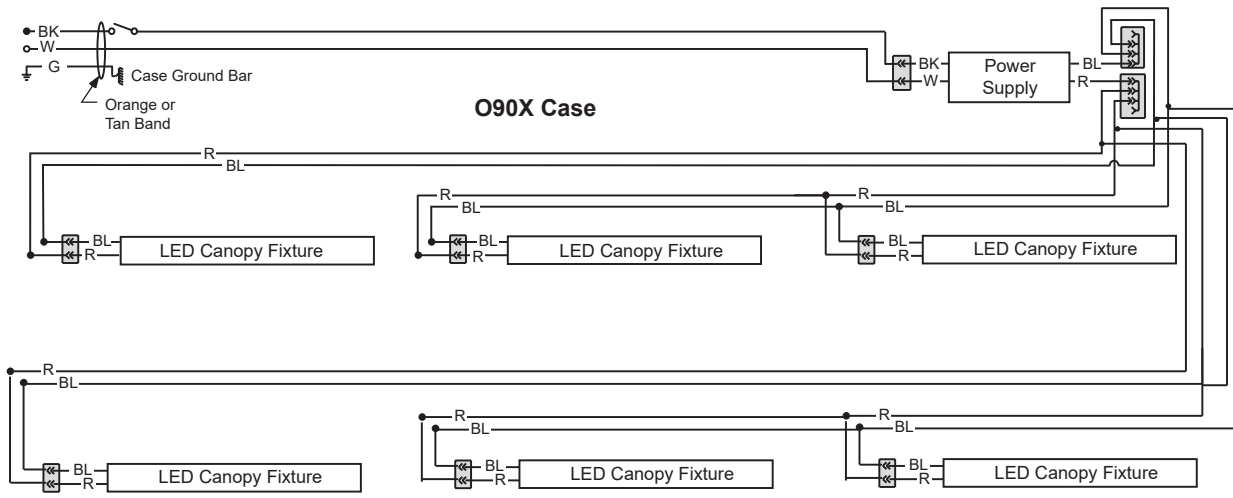
Insight ID5SMO90X
Dairy / Delicatessen

Fan Wiring
Offtime Defrost



LED Canopy Light Circuits

EcoShine II LED Canopy Lighting — 1 Row

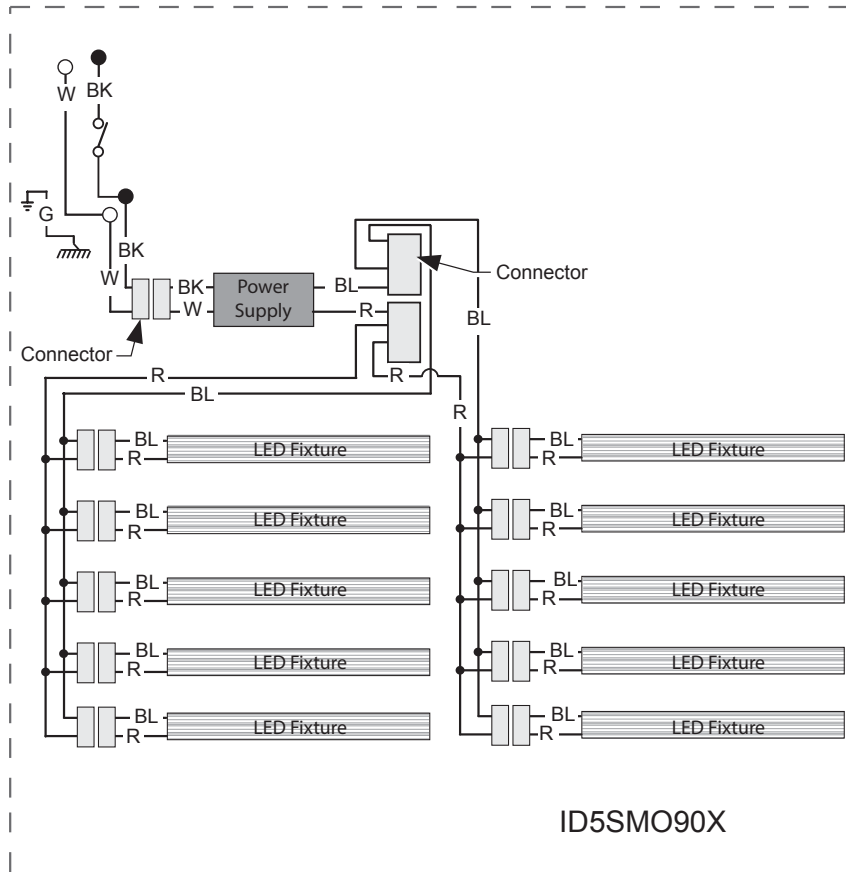


WARNING

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

Optional Shelf Harness and LED Light Circuits for 4 or 5 Rows of Shelves

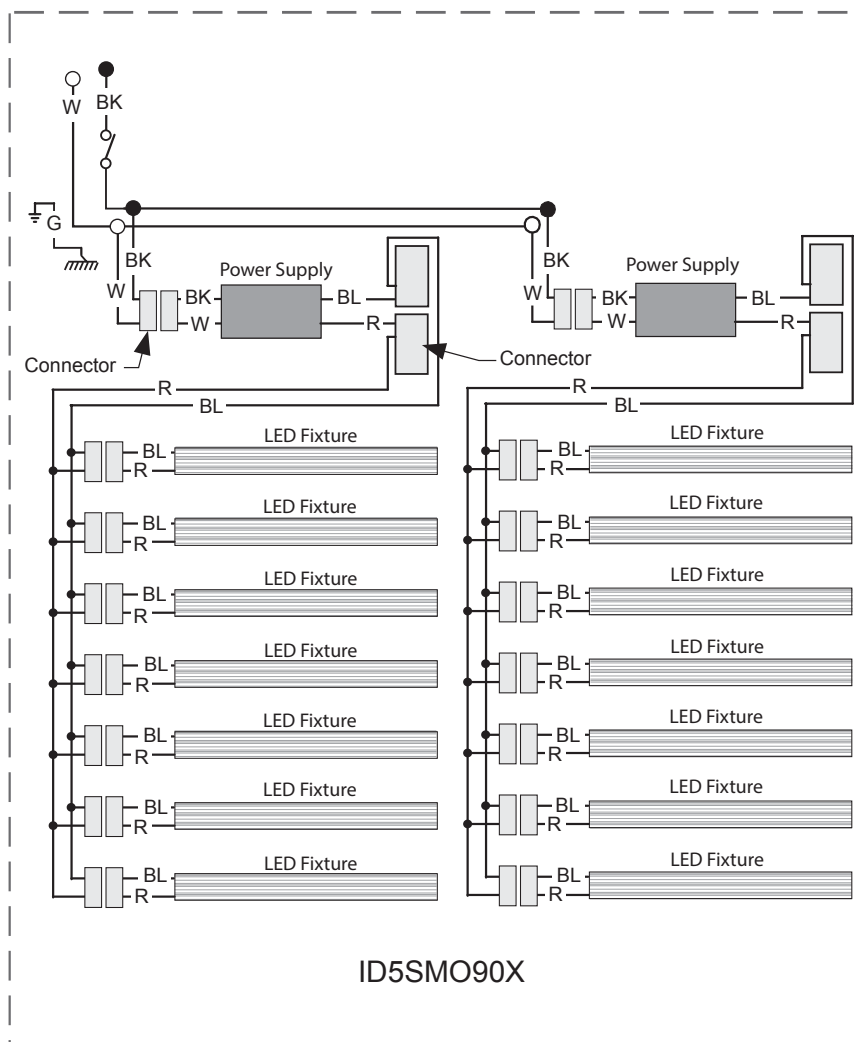


WARNING

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

Optional Shelf Harness and LED Light Circuits for 6 or 7 Rows of Shelves



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/case. Add 10 BTU/HR/CASE for each row of LED shelf lights.

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 5. The store legend specifies fans on a 230V circuit. In this instance, fans use 0.78 Amps and the MCA is 0.98. 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 canopy lighting [standard or optional] (here 0.32 for standard), and shelf or rail lighting [maximum for which case is wired] (0.41 for five shelves); then add together $[0.32 + 0.41 = 0.73$ amps for 120V] (for 230V, multiply $0.73 * 0.52 = 0.38$).

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: December 2017: Original Issue

Revision B: December 2017: Updated cover image, cross section and plan view.

Revision C: August 2018: Updated cover image, cross section and plan view.

Revision D: January 2019: Updated lighting.