# HUSSMANN®

## Insight® ID5SMI45

Dairy / Deli / Beverage / Produce / Meat

**Merchandiser Data Sheet** 

P/N 3047918\_D

**NSF**® Certified

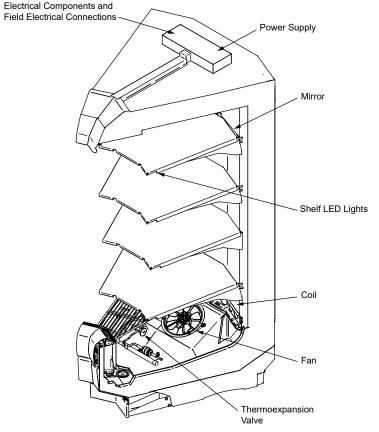
December 2023

DOE 2017
Energy Efficiency
Compliant





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



Portion of parts removed for clarity.

Inside 45° 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.

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Data sheet-Insight ID5SMI45

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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## Refrigeration Data 1

ID5SMI45 Wedge		Optimal Shelf Life		Energy Comparison
Application		Dairy/Deli/ Beverage/ Produce	Convertible / Meat	AHRI 1200 Rating Point <sup>3</sup>
	Discharge Air °F (°C)	34 (1.1)	31 (-0.55)	35 (1.66)
Unlit	Average Evaporator °F (°C) <sup>2</sup>	28 (-2.22)	23 (-5.0)	27 (-2.77)
Shelves	Parallel Btu/hr/case (Watts/case)	1357 (398)	1644 (482)	1531 (449)
	Conventional Btu/hr/case (Watts/case)	1480 (434)	1835 (538)	1670 (489)
	Discharge Air °F (°C)	34 (-1.11)	31 (-0.55)	34 (1.11)
Lit	Average Evaporator °F (°C) <sup>2</sup>	27 (-2.77)	23 (-5.0)	26 (-3.33)
Shelves	Parallel Btu/hr/case (Watts/case) <sup>4</sup>	1366 (400)	1653 (484)	1540 (451)
	Conventional Btu/hr/case (Watts/case) <sup>4</sup>	1490 (437)	1845 (541)	1680 (492)
Fan Speed⁵	ID5SMI456 (8.25")	1300	1600 <sup>5</sup>	1300

#### 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. AHRI 1200 Rating Point for energy consumption comparison only.
- 4. Add 10 Btu/hr (3 Watts) per shelf row for LED shelf light fixtures.
- 5. Some lengths and/or applications require optional fan motor kits applied by the Hussmann Product Configurator (HPC).

Defrost Data		Conventional Controls	Estima	ted Charge 8	ID	5SMI45
Frequency (hours between	een defrost) 4	ID5SMI45 Low Pressure Backup	145	0.4 lb	7 oz	0.2 kg
Оғғтіме Time (minutes)	<b>ID5SMI45</b> 20	Control CI/CO <sup>7</sup> 20°F / 10°F  -6.67°C / -12.2°C				
ELECTRIC OR GAS	Not Available	Indoor Unit Only,	8 This is	an average for	all refrige	rant types
Defrost Water <sup>6</sup>	<b>10.47</b> lb/day (4.75 kg/day)	Pressure Defrost Termination 7 48°F (8.89°C)	Actual re	efrigerant charg	_	
<sup>6</sup> (± 15% based on case loading).	e configuration and product	<sup>7</sup> Use a Temperature Pressure Chart to determine PSIG conversions.				

#### **Product Data**

 Gross Refrigerated Volume 9 (Cu Ft)
 22.10 ft3 (0.63 m3)

 AHRI Total Display Area 10 (Sq Ft)
 13.80 ft2 (1.28 m2)

 Shelf Area 11 (Sq Ft)
 18.05 ft2 (1.68 m2)

- <sup>9</sup> AHRI Gross Refrigerated Volume: Refrigerated Volume, ft<sup>3</sup> [m<sup>3</sup>]
- <sup>10</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]
- 11 Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of 20-inch shelves

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.

Shelf complement shown as tested:

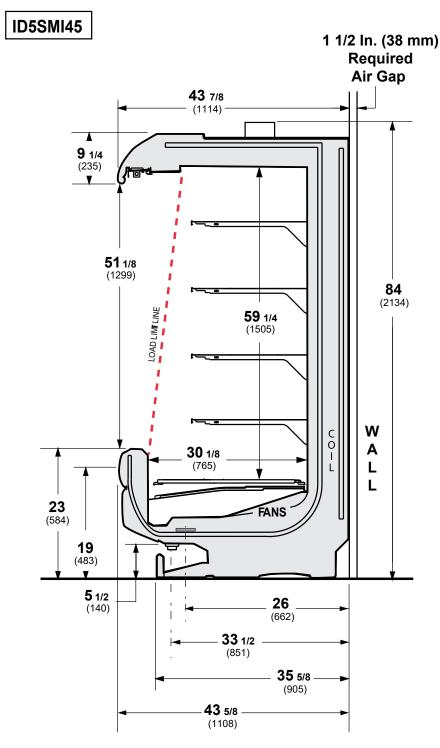
Four rows of 20-in. shelves spaced equally between bottom display pan and interior top panel.

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).



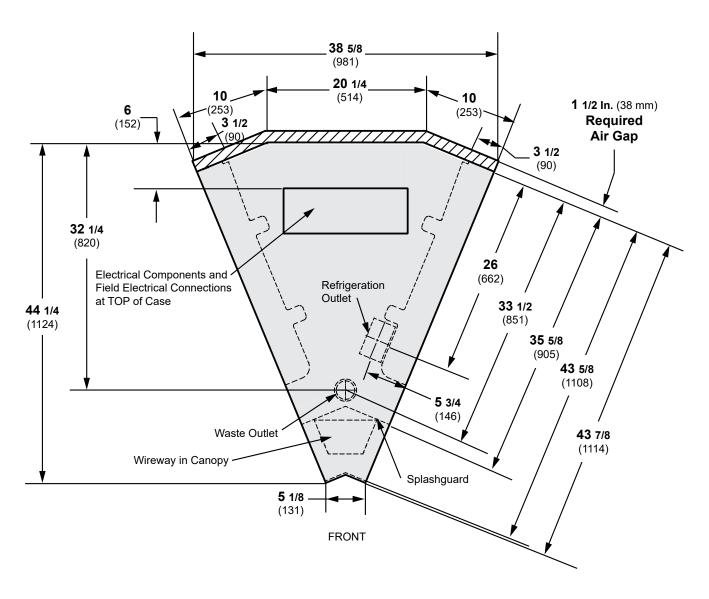
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# Engineering Plan View

ID5SMI45

Dimensions shown as in. and (mm).



(ID5SMI45 Wedge shown above)

## **Electrical Data**

Number of Fans	145
8.25-in.	1

			Amperes	Watts
Evaporator Fan		145	145	
120V	60Hz	Energy Efficient	0.32	22
230V	50/60Hz	Energy Efficient	0.17	22
Minimun	n Circuit A	Ampacity		
120V	60Hz	Energy Efficient	0.52	
230V	50/60Hz	Energy Efficient	0.37	
Maximu	m Over Cu	irrent Protection 120V	20	
Maximun	n Over Cur	rent 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.

## **Optional LED Shelf Lights**

1 Row of Shelves	0.04	4
2 Rows of Shelves	0.07	8
3 Rows of Shelves	0.10	12
4 Rows of Shelves	0.14	16
5 Rows of Shelves	0.17	20
6 Rows of Shelves	0.20	24

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

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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

145

**Ib** (*kg*) 250 (114)

† 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

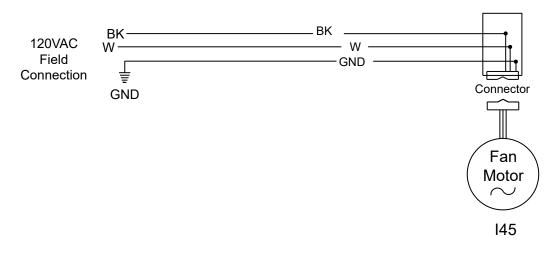
Maximum number of Lighted Shelves: 6

Standard shelf complement for test purposes: (4) 20-in. shelves, evenly distributed vertically

## Fan Wiring Offtime Defrost

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## **WARNING**

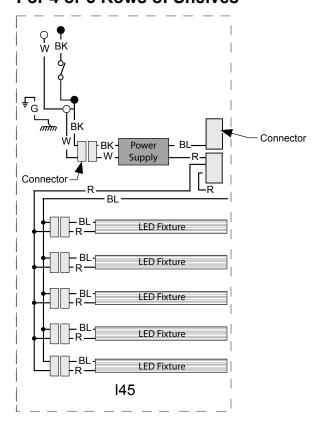
All components must have mechanical ground, and the merchandiser must be grounded.

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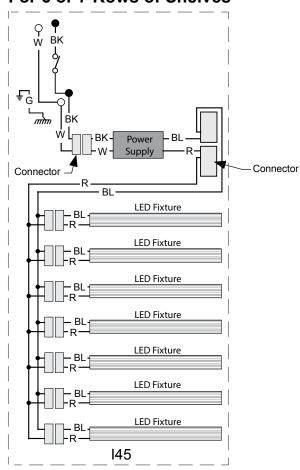
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## **Optional Shelf Harness and LED Light Circuits**

## For 4 or 5 Rows of Shelves



## 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 
$$\bullet$$
 = 120V Power  $\circ$  = 120V Neutral  $\stackrel{\perp}{=}$  = Field Ground  $\stackrel{\text{min}}{=}$  = 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. Add 10 BTU/HR 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 fan voltage on page 5. For example, the store legend specifies fans on a 230V circuit. In this instance, fans use 0.17 Amps and the MCA is 0.37. 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 shelf lighting [maximum for which case is wired] (0.20 for six shelves); then add together [0.20 amps for 120V] (for 230V, multiply 0.20 \* 0.52 = 0.11).

### Line Sizing — Refer to store legend.

Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.



Scan the QR code on 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: November 2017: Original Issue

Revision B: April 2018: Updated plan view and cross section. Other changes marked with a bar, circle or underline.

Revision C: October 2019: Updated Refrigeration Data, removed Replacement Parts page.

Revision D: December 2023: Updated fan and lighting information. Updated wiring diagrams.