# HUSSMANN

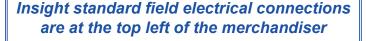
# Insight® IDF5SL-TE

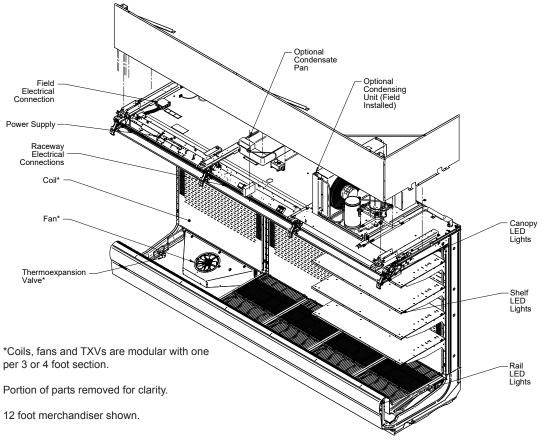
Dairy / Delicatessen
Merchandiser Data Sheet

P/N 3098687\_B

**NSF**® Certified

September 2019











#### **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 | Shelf Options                               | Page 6 |
|--------------------------------|--------|---|--------|
| Product Data (AHRI Statistics) | Page 2 | Wiring Diagrams                             | Page 7 |
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Data sheet-Insight IDF5SL-TE

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 IDF5SL-TE

#### Dairy / Delicatessen

| Refri | geration | Data 1 |
|-------|----------|--------|
|       |          |        |

|                        | IDF5SL-TE                                     |                                     | Energy<br>Comparison |                                    |             |  |
|------------------------|---|-------------------------------------|----------------------|------------------------------------|-------------|--|
| Application            |   | Dairy/Deli/<br>Beverage/<br>Produce | Convertible/<br>Meat | NSF Type 2<br>Ambient <sup>3</sup> | Pegs⁴       | AHRI 1200<br>Rating Point <sup>5</sup> |
|                        | Discharge Air °F (°C)                         | 32 (0)                              | 31 (-0.55)           | 30 (-1.11)                         | 30 (-1.11)  | 35 (1.66)                              |
| Unlit                  | Average Evaporator °F (°C) <sup>2</sup>       | 28 (-2.22)                          | 27 (-2.77)           | 26 (-3.33)                         | 26 (-3.33)  | 31 (-1.1)                              |
| Shelves                | Parallel Btu/hr/ft (Watts/m) <sup>6</sup>     | 1020 (981)                          | 1120 (1077)          | 1295 (1245)                        | 1245 (1197) | 955 (918)                              |
|                        | Conventional Btu/hr/ft (Watts/m) <sup>6</sup> | 1115 (1072)                         | 1220 (1173)          | 1410 (1356)                        | 1360 (1308) | 1040 (1000)                            |
|                        | Discharge Air °F (°C)                         | 31 (-0.55)                          | 30 (-1.11)           | 29 (-1.66)                         |             | 34 (1.11)                              |
| Lit                    | Average Evaporator °F (°C) <sup>2</sup>       | 27 (-2.77)                          | 26 (-3.33)           | 25 (-3.88)                         |             | 30 (-1.11)                             |
| Shelves                | Parallel Btu/hr/ft (Watts/m) 5,6              | 1040 (1000)                         | 1130 (1087)          | 1320 (1269)                        |             | 965 (928)                              |
|                        | Conventional Btu/hr/ft (Watts/m) 5,6          | 1135 (1091)                         | 1230 (1183)          | 1440 (1385)                        |             | 1055 (1014)                            |
| F C18                  | IDF5SL-TE (8.25")                             | 1300                                | 1500 <sup>8</sup>    | 1500 <sup>8</sup>                  | 1300        | 1300                                   |
| Fan Speed <sup>8</sup> | IDF5SL4, 8, 12TE (8.25")                      | 1300                                | 1500 <sup>8</sup>    | 1500 <sup>8</sup>                  | 1300        | 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. Data for operation in NSF Type 2 ambient of 80°F and 55% relative humidity.
- 4. AHRI 1200 Rating Point for energy consumption comparison only.
- 5. Add 10 Btu/hr/ft (9.6 Watts/m) per shelf row for LED shelf light fixtures.
- 6. Subtract 60 Btu/hr/ft (57.7 Watts/m) for front glass (on applicable models).
- 7. Some lengths and/or applications require optional fan speed control kits applied by the Hussmann Product Configurator.
- 8. This application data is based on testing with the rear of the case exposed to a 38°F cooler. A cooler is required for proper case performance.
- Reduce refrigeration load by 15% if fitted with CaseShieldPTM.

#### **Defrost Data**

**Frequency** (hours between defrost) **Defrost Water** 10

8.1 lb/ft/day

(12.1 kg/m)

10 (± 15% based on case configuration and product

loading).

OFFTIME IDF5SL-TE
Time (minutes) 20

ELECTRIC OR GAS Not Available

#### **Conventional Controls**

IDF5SL-TE Low Pressure Backup Control CI/CO <sup>11</sup>

> 20°F /10°F -6.67°C / -12.2°C

Indoor Unit Only, Pressure Defrost Termination <sup>11</sup>

48°F (8.89°C)

<sup>11</sup> Use a Temperature Pressure Chart to determine PSIG conversions.

| Estima | ge 12 ID | F5SL-TE  |         |
|--------|----------|----------|---------|
| 4 ft   | 5.4 lb   | 86.4 oz  | 2.45 kg |
| 6 ft   | 4.5 lb   | 72 oz    | 2.04 kg |
| 8 ft   | 7.4 lb   | 118.4 oz | 3.35 kg |
| 12 ft  | 8.8 lb   | 140.8 oz | 3.99 kg |
|        |          |          |         |

<sup>12</sup> This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

#### **Product Data**

 Gross Refrigerated Volume 13 (Cu Ft/Ft)
 11.2 ft3/ft (1.04 m3/m)

 AHRI Total Display Area 14 (Sq Ft/Ft)
 4.6 ft2/ft (1.4 m2/m)

 Shelf Area 15 (Sq Ft/Ft)
 9.85 ft2/ft (3.00 m2/m)

<sup>13</sup> AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]

<sup>14</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

15 Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of 22-in. 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:

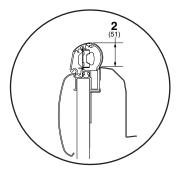
Four rows of 22-in. shelves spaced equally between bottom display pan and interior top panel.

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

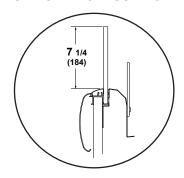
Shown with Ellipse Option Canopy and Bumper.

3 in. between back-to-back cases.

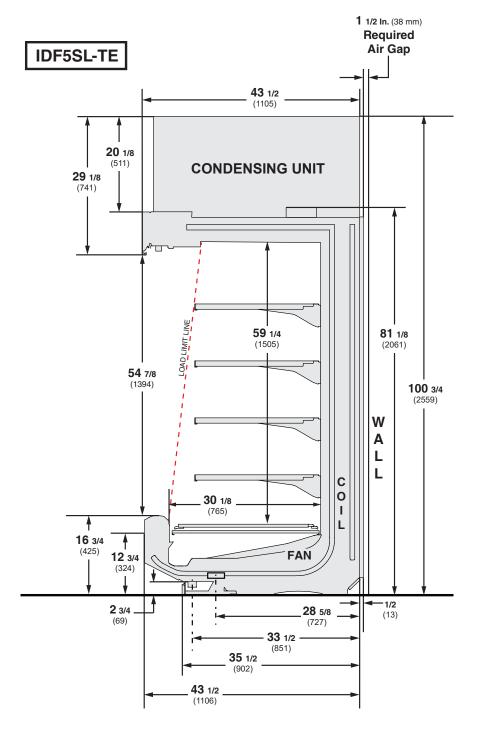
#### **OPTIONAL RAIL LIGHT**



#### **OPTIONAL GLASS FRONT**

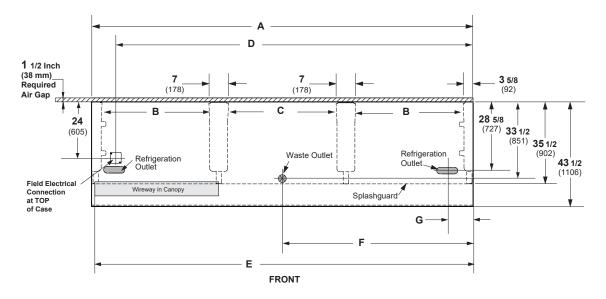


#### Dimensions shown as in. and (mm).



# Engineering Plan View

#### **IDF5SL-TE**



(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 (3668) |
|   | Maximum O/S dimension of case back to front (includes bumper)  | 43 5/8 (1108) | 43 5/8 (1108) | 43 5/8 (1108) | 43 5/8 (1108)  |
|   | Back of case to front of splashguard   | 35 5/8 (905)  | 35 5/8 (905)  | 35 5/8 (905)  | 35 5/8 (905)   |
| (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)   | 38 (958)      | 62 (1570)     | 87 7/8 (2232) | 135 3/8 (3451) |
|   | Back of case to center of Field Electrical Wiring Connection   | 24 (605)      | 24 (605)      | 24 (605)      | 24 (605)       |
|   | 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) |
| Wast  | e Outlets  |               |               |               |                |
| (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)     |
| Refri   | geration Outlet  |               |               |               |                |
| (G)   | Back of case to center of refrigeration outlet   | 29 (737)      | 29 (737)      | 29 (737)      | 29 (737)       |
|   | End of case to center of refrigeration outlet  | 8 1/2 (216)   | 8 1/2 (216)   | 8 1/2 (216)   | 8 1/2 (216)    |

### **Electrical Data**

Insight IDF5SL-TE
Dairy / Delicatessen

| Number  | of Fans     |                   | 4 ft | 6 ft | 8 ft  | 12 ft |                |    |      |       |
|---------|-------------|-------------------|------|------|-------|-------|----------------|----|------|-------|
| 8.25 in |             |                   | 1    | 2    | 2     | 3     |                |    |      |       |
|         |             |                   |      |      |       |       |                |    |      |       |
|         |             |                   |      | Amp  | oeres |       |                | Wa | itts |       |
| Evapora | tor Fan     |                   | 4 ft | 6 ft | 8 ft  | 12 ft | 4 ft 6 ft 8 ft |    |      | 12 ft |
| 120V    | 60Hz        | Energy Efficient  | 0.25 | 0.56 | 0.50  | 0.75  | 16             | 36 | 32   | 48    |
| 230V    | 50/60Hz     | Energy Efficient  | 0.13 | 0.27 | 0.26  | 0.39  | 16             | 36 | 32   | 48    |
|         |             |                   |      |      |       |       |                |    |      |       |
| Conden  | sate Pump   | )                 |      |      |       |       |                |    |      |       |
| 120V    | 60Hz        |                   | 1.9  | 1.9  | 1.9   | 1.9   |                |    |      |       |
| 230V    | 50/60Hz     |                   | 1.0  | 1.0  | 1.0   | 1.0   |                |    |      |       |
|         |             |                   |      |      |       |       |                |    |      |       |
| Minimur | n Circuit A | Ampacity          |      |      |       |       |                |    |      |       |
| 120V    | 60Hz        | Energy Efficient  | 2.83 | 3.14 | 3.08  | 3.33  |                |    |      |       |
| 230V    | 50/60Hz     | Energy Efficient  | 1.58 | 1.72 | 1.71  | 1.84  |                |    |      |       |
|         |             |                   |      |      |       |       |                |    |      |       |
| Maximu  | m Over Cເ   | irrent Protection |      |      |       |       |                |    |      |       |
| 120V    |             |                   | 20   | 20   | 20    | 20    |                |    |      |       |
| 230V    |             |                   | 15   | 15   | 15    | 15    |                |    |      |       |
|         |             |                   |      |      |       |       |                |    |      |       |

# Lighting

|                              |      | Amperes |      |       | Watts |      |      |       |
|------------------------------|------|---------|------|-------|-------|------|------|-------|
|                              | 4 ft | 6 ft    | 8 ft | 12 ft | 4 ft  | 6 ft | 8 ft | 12 ft |
| LED LIGHTING                 |      |         |      |       |       |      |      |       |
| EcoShine ULTRA Canopy Lights |      |         |      |       |       |      |      |       |
| 1 Row EcoShine ULTRA         | 0.16 | 0.26    | 0.36 | 0.54  | 19    | 31   | 43   | 64    |
| EcoShine II Canopy Lights    |      |         |      |       |       |      |      |       |
| 1 Row EcoShine II            | 0.16 | 0.26    | 0.32 | 0.48  | 19    | 32   | 39   | 58    |
| 1 Row EcoShine II HO         | 0.22 | 0.33    | 0.44 | 0.66  | 27    | 40   | 53   | 79    |
| EcoShine II Shelf Lights     |      |         |      |       |       |      |      |       |
| 1 Row of Shelves             | 0.08 | 0.12    | 0.16 | 0.25  | 10    | 14   | 20   | 30    |
| 2 Rows of Shelves            | 0.16 | 0.23    | 0.33 | 0.49  | 20    | 28   | 40   | 59    |
| 3 Rows of Shelves            | 0.25 | 0.35    | 0.49 | 0.74  | 30    | 42   | 59   | 89    |
| 4 Rows of Shelves            | 0.33 | 0.47    | 0.66 | 0.99  | 40    | 56   | 79   | 119   |
| 5 Rows of Shelves            | 0.41 | 0.59    | 0.82 | 1.24  | 49    | 71   | 99   | 148   |
| 6 Rows of Shelves            | 0.49 | 0.70    | 0.99 | 1.48  | 59    | 85   | 119  | 178   |
| EcoShine II Rail Light-1 Row | 0.08 | 0.12    | 0.16 | 0.25  | 10    | 14   | 20   | 30    |

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

# Insight IDF5SL-TE Dairy / Delicatessen

#### **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.) 1 \(^{1}/\_{4}\)
Schedule 40 PVC
Merchandiser Liquid Line (in.) \(^{3}/\_{8}\)

#### **ESTIMATED SHIPPING WEIGHT †**

| Case    |           |           |            |            | Solid End |
|---------|-----------|-----------|------------|------------|-----------|
|         | 4 ft      | 6 ft      | 8 ft       | 12 ft      | (each)    |
| lb (kg) | 770 (350) | 930 (422) | 1080 (490) | 1190 (540) | 80 (36)   |

† 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

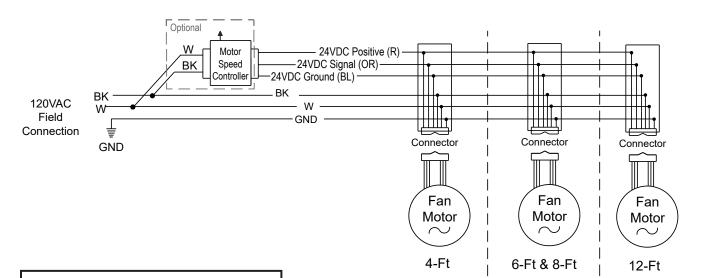
Maximum number of Shelves: 8

Maximum number of Lighted Shelves: 6

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

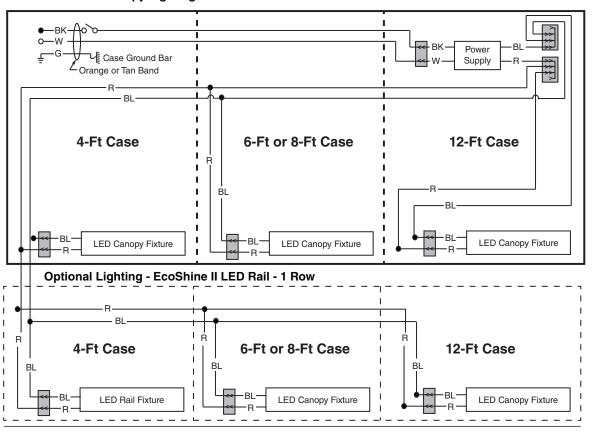
# Fan Wiring Offtime Defrost

# Insight IDF5SL-TE Dairy / Delicatessen



# **LED Canopy Light Circuits**

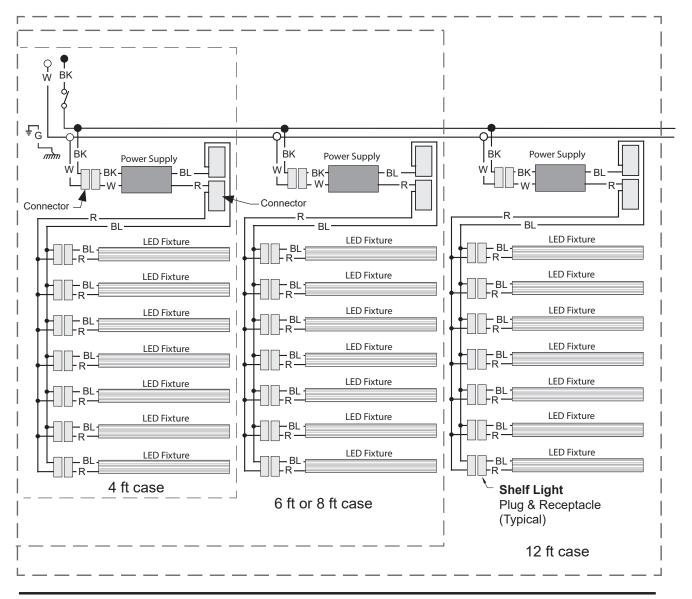
#### **EcoShine II LED Canopy Lighting - 1 Row**



#### **WARNING**

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

### 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 
$$\bullet$$
 = 120V Power  $\circ$  = 120V Neutral  $\frac{1}{+}$  = Field Ground  $\stackrel{min}{\longrightarrow}$  = 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 1.00 Amps and the MCA is 1.20. 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 shelf or rail lighting [maximum for which case is wired] (1.48 for six shelves); then add together [0.48 + 1.48 = 1.96 amps for 120V] (for 230V, multiply 1.96 \* 0.52 = 1.02).

#### 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: August 2019: Original Issue.

Revision B: September 2019: Updated cross section and plan view.