Insight[®] IP2SL HUSSMANN® **Cut / Bulk Produce** Merchandiser Data Sheet P/N 0541484 L **NSF**[®]Certified Insight standard field electrical connections September 2017 are at the top left of the merchandiser **DOE 2017** Field Electrical **Energy Efficiency** Connection Compliant Powe Supply Coil Fan⁴ Mirror Thermoexpansion Canopy Valve* LED Lights Shelf LED Lights Rail LED *Coils, fans and TXVs are modular with one per Liahts 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.

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Data sheet-Insight IP2SL

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.

Refrigeration Data 1

	IP2SL		Optimal Shelf Life				
Application		Cut Produce	Bulk Produce	NSF Type 2 Ambient ³ (Cut)	AHRI 1200 Rating Point⁴		
	Discharge Air °F (°C)	33 (0.55)	39 (3.89)	32 (0)	33 (0.55)		
Unlit Shelves	Average Evaporator °F (°C) ²	28 (-2.22)	34 (1.11)	26 (-3.33)	28 (-2.22)		
	Parallel Btu/hr/ft (Watts/m)	820 (789)	665 (640)	1080 (1039)	820 (789)		
	Conventional Btu/hr/ft (Watts/m)	895 (861)	725 (697)	1180 (1135)	895 (861)		
	Discharge Air °F (°C)	32 (0)	38 (3.33)	31 (-0.55)	32 (0)		
Lit	Average Evaporator °F (°C) ²	27 (-2.77)	33 (0.55)	25 (-3.89)	27 (-2.77)		
Shelves	Parallel Btu/hr/ft (Watts/m) 5	845 (813)	675 (649)	1100 (1058)	845 (813)		
	Conventional Btu/hr/ft (Watts/m) 5	920 (885)	735 (707)	1195 (1149)	920 (885)		
Fan Spood	IP2SL6 (8.25")	1300	1300	1300	1300		
Fan Speed	IP2SL4, 8, 12 (8.25")	1300	1300	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.

Defrost Data		Conventional Controls	Estima	ted Charg	ted Charge ⁸ IP2SL 0.6 lb 9.6 oz 0.3 kg			
Frequency (hours between of Defrost Water ⁶ 7.2 lb/ft/day	defrost) 4 (10.7 kg/m)	IP2SL Low Pressure Backup Control CI/CO ⁷ 20°F /10°F -6.7°C / -12.2°C	4 ft 6 ft 8 ft 12 ft	0.6 lb 1.1 lb 1.5 lb 2.9 lb	9.6 oz 17.6 oz 24 oz 46.4 oz	0.3 kg 0.5 kg 0.7 kg 1.3 kg		
⁶ (± 15% based on case confi loading). <i>Огятиме</i> Time (minutes)	iguration and product IP2SL 20	Indoor Unit Only, Pressure Defrost Termination ⁷ 48°F (8.9°C)	Actual r	0	for all refrige aarge may va a pound.			
ELECTRIC OR GAS	Not Available	⁷ Use a Temperature Pressure Chart to determine PSIG conversions.						

Product Data

Gross Refrigerated Volume⁹ (Cu Ft/Ft) AHRI Total Display Area¹⁰ (Sq Ft/Ft) Shelf Area¹¹ (Sq Ft/Ft) 7.0 ft³/ft (0.65 m³/m) 3.02 ft²/ft (0.92 m²/m) 4.35 ft²/ft (1.32 m²/m)

⁹ AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]

¹⁰ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

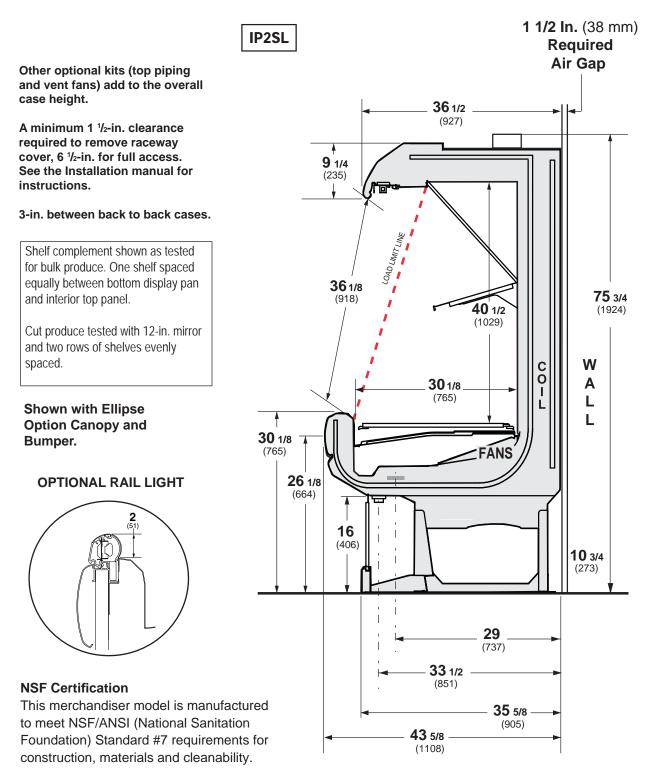
¹¹ Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (1) row of shelves

Insight Multideck Merchandiser, Produce, 2 Display Level, Standard Bottom, Low Height Front

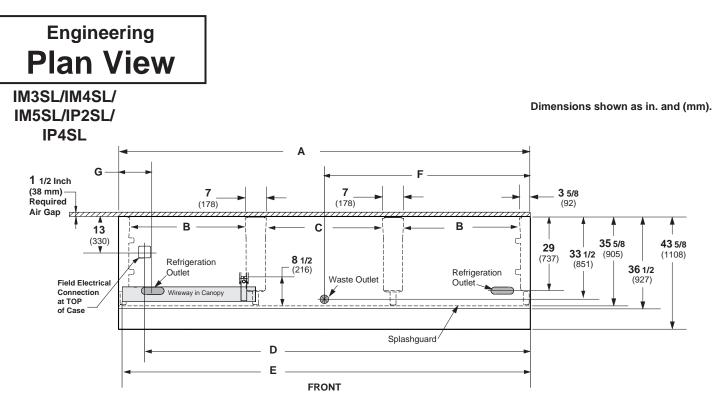
DOE 2017 Energy Efficiency Compliant

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).



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(12 Foot Model shown above)

		4 ft	6 ft	8 ft	12 ft
Gene	ral				
(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)
Elect	rical Service (Field Electrical Wiring Connection)				
(D)	RH End of case to center of Field Electrical Wiring Connection (top of case)	39 ³ / ₈ (1000)	63 ¹ /2 (1613)	87 ¹ /2 (2223)	135 1/2 (3442)
	Back of case to center of Field Electrical Wiring Connection	13 (330)	13 (330)	13 (330)	13 (330)
	Length of electrical wireway	44 5/8(1133)	33 ¹ / ₂ (851)	45 7/8(1191)	45 7/8 (1191)
(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 (3623)
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)
Refrigeration 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

Number	of Fans		4 ft	6 ft	8 ft	12 ft				
8.25-in			1	2	2	3				
				Amp	oeres			Wa	atts	
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	0.50	0.50	0.75	16	32	32	48
230V	50/60Hz	Energy Efficient	0.13	0.26	0.26	0.39	16	32	32	48
Minimun	n Circuit A	mpacity								
120V	60Hz	Energy Efficient	0.45	0.70	0.70	0.95				
230V	50/60Hz	Energy Efficient	0.33	0.46	0.46	0.59				
Maximu	m Over Cı	Irrent Protection								
120V			20	20	20	20				
230V			15	15	15	15				

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.

	Amperes				Watts			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
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
EcoShine II Shelf								
1 Row of Shelves	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7
2 Rows of Shelves	0.16	0.23	0.33	0.49	19.8	28.2	39.5	59.3
3 Rows of Shelves	0.25	0.35	0.49	0.74	29.7	42.3	59.3	89.0
4 Rows of Shelves	0.33	0.47	0.66	0.99	39.5	56.4	79.1	118.6
EcoShine II Rail Light								
1 Row	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf 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).				PHYSIC Merchandiser Drip Schedule 4 Merchandiser Liqui Merchandiser Sucti	0 PVC d Line (in.) ³	¹ /4 ³ /8 ⁵ /8	
ESTIMATED SHIPPING WEIGHT †							
Case	4 ft	6 ft	8 ft	12 ft	Solid End <i>(each)</i>		
lb (kg)	500 (227)	900 (408)	1050 (476)	1400 (635)	75 (34)		
† Actual weights will vary according to optional kits included.							

Shelf Options

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

14-inch 16-inch 18-inch 20-inch 22-inch

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

Minimum number of Shelves: 0

Optimal number of Shelves: 2

Maximum number of Shelves: 4

Maximum number of Lighted Shelves: 4

Standard shelf complement for test purposes: (1) row of shelves, evenly distributed vertically, titled at 15° with 26-in. mirror

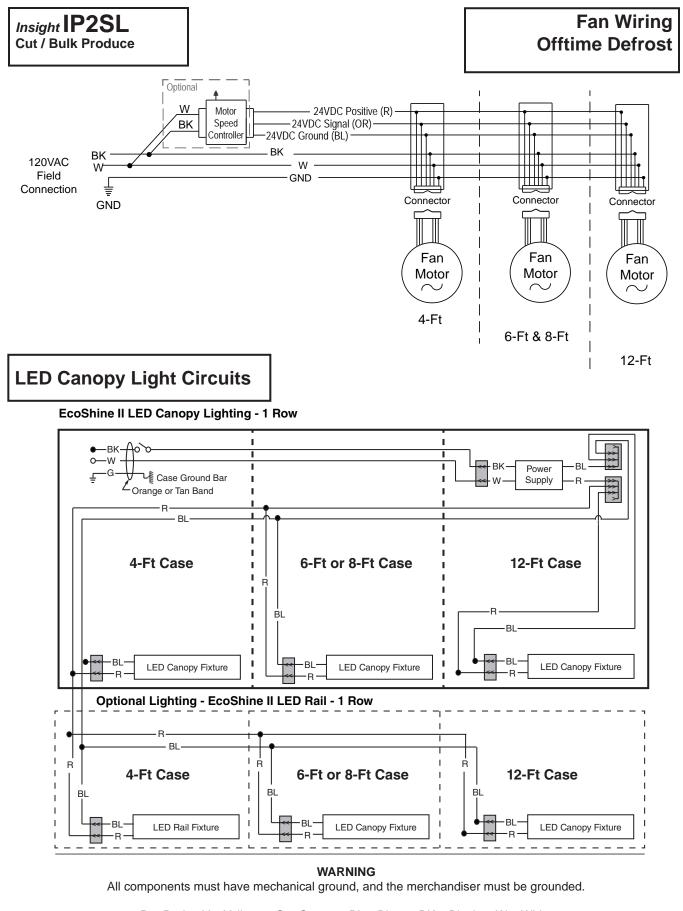
Replacement Parts List

Part #	Description	Part #	Description		
FAN ASSEMBLIES		Coils			
Standard HE Far	h Assembly	0534323	4 ft, 8 ft, 12 ft		
4 Ft, 6 Ft, 8 Ft &	12 Ft	0534222	6 ft only		
0535563	8.25-in. Fan Assembly				
		HONEYCOMB - WHIT	E		
FAN SPEED KEY		0536831	4 ft, 8 ft, 12 ft		
OPTIONAL		0536829	6 ft only		
THERMOSTATS		THERMO-EXPANSION VALVE			
OPTIONAL		Pre-set Adjustable			
		Varies with	Refrigerant and Size		
LED FIXTURES AND	POWER SUPPLY				
0501213	Power Supply				
	LED Canopy Fixture				
	Replace with like fixtures.				
	LED Shelf Fixture				
	Replace with like fixtures.				
	LED Rail Fixture				

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.

Replace with like fixtures.

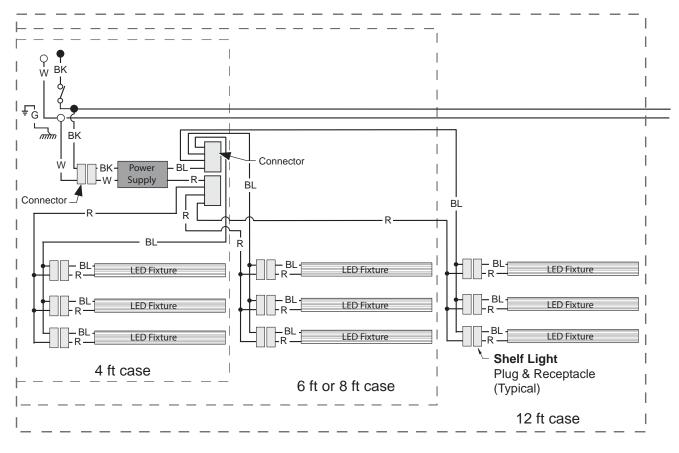
For additional parts information, visit http://www.hussmann.com/en/Pages/Aftermarket-Parts.aspx



R = Red Y = Yellow G = Green BL = Blue BK = Black W = White = 120V Power \bigcirc = 120V Neutral $\frac{1}{2}$ = Field Ground mm = Case Ground

Optional LED Shelf Lighting

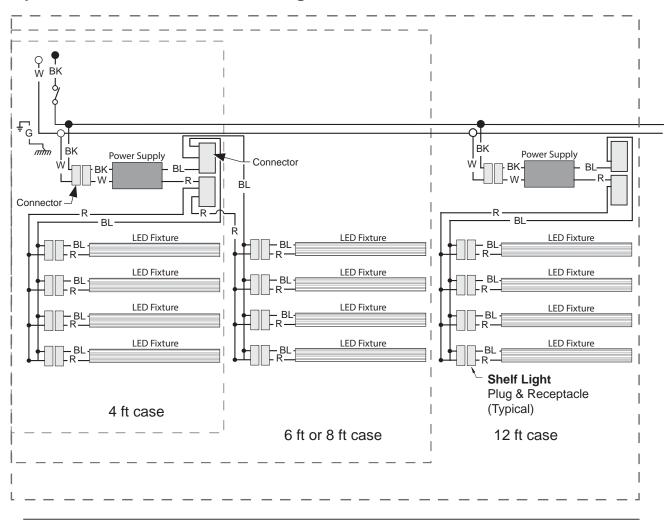
Optional Shelf Harness and LED Light Circuits for 2 or 3 Rows of Shelves



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 Pov	ver 0 = 12	OV NEUTRAL	± = Field G	ROUND	= CASE GROUND



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

WARNING

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

R = RedY = YellowG = GreenBL = BlueBK = BlackW = White• = 120V Power• = 120V Neutral $\frac{1}{2}$ = Field Groundmm = 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 0.39 Amps and the MCA is 0.59. 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] (0.99 for four shelves); then add together [0.48 + 0.99 = 1.47 amps for 120V] (for 230V, multiply $1.47 \times 0.52 = 0.76$).

Line Sizing — Refer to store legend.

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



Revision History

Revision A: March 2014: Original Issue

Revision B: March 2014: Fixed location of shelf on cross section.

Revision C: December 2015: Updated cross section and plan view.

Revision D: April 2016: Updated cover image, updated application data, added Gross Refrigerated Volume and updated plan view.

Revision E: August 2016: Updated cross section and plan view.

Revision F: January 2017: Added rail light updates.

Revision G: March 2017: Updated defrost data.

Revision H: April 2017. Updated LED energy values.

Revision J: April 2017. Updated LED energy values.

Revision K: June 2017. Updated defrost frequency.

Revision L: September 2017. Updated notes page. Other changes marked with a bar, circle or underline.