HUSSMANN®
Excel

PF2X

Bulk Produce

Freedom

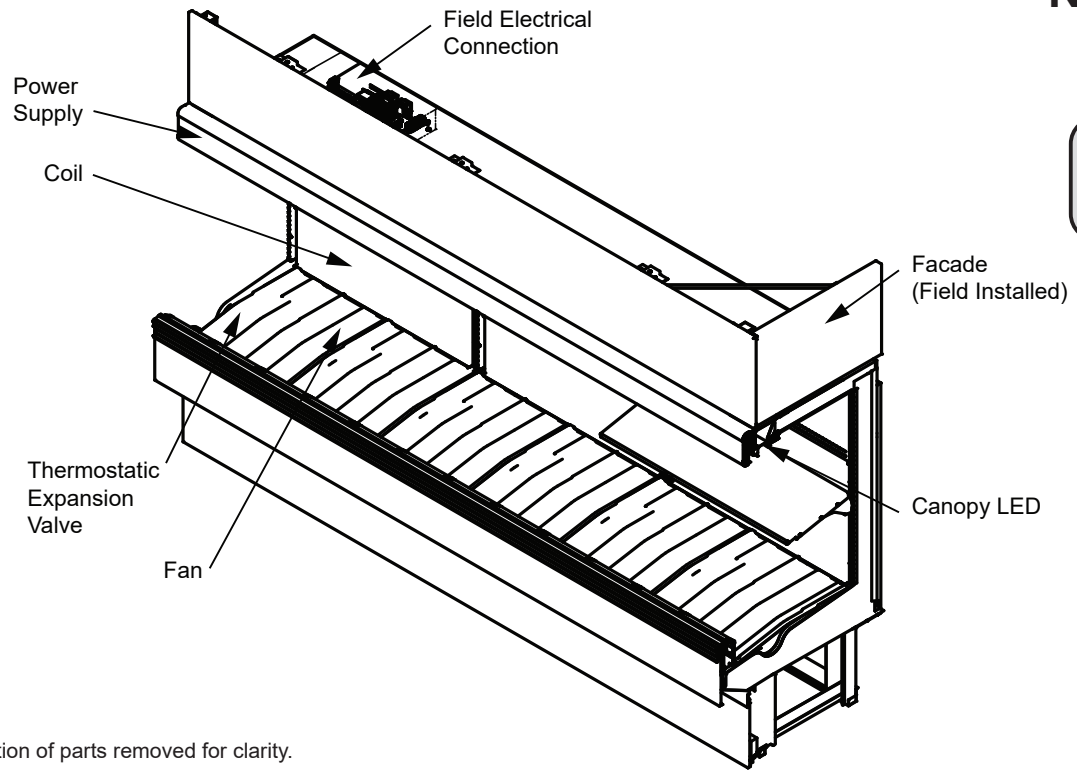
Merchandiser Data Sheet

P/N 3046112_B

NSF® Certified

March 2024

DOE 2017
Energy Efficiency Compliant



Portion of parts removed for clarity.

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

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.

Performance Data	Page 2	Estimated Shipping Weights	Page 6
Product Data (AHRI Statistics)	Page 2	Shelf Options	Page 6
Cross Section	Page 3	Wiring Diagrams	Page 7
Plan View	Page 4	QR Code for Parts and Product Information	Page 10
Electrical Loads	Page 5	Revision History	Page 10

Data sheet-Excel PF2X

Note: Revision B: Updated refrigeration charges, page 3.

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Spanish P/N 3046113

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Refrigeration Data [1]

PF2X		Optimal Shelf Life
Application		Bulk Produce
Unlit Shelves	Discharge Air °F (°C)	39 (3.89)
	Average Evaporator °F (°C) [2]	34 (-1.11)
	Unit Sizing °F (°C)	32 (0)
	Parallel Btu/hr/ft (Watts/m)	840 (807)
	Conventional Btu/hr/ft (Watts/m)	889 (853)
Lit Shelves	Discharge Air °F (°C)	39 (3.89)
	Average Evaporator °F (°C) [2]	34 (-1.11)
	Unit Sizing °F (°C)	32 (0)
	Parallel Btu/hr/ft (Watts/m)	849 (814)
	Conventional Btu/hr/ft (Watts/m)	899 (863)

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.

Defrost Data

Frequency (hours between defrost) 24

Defrost Water [3] 6 lb/ft/day (8.92 kg/m)

[3] **(± 15%** based on case configuration and product loading).

Offtime
Time (minutes) 60

Electric or Gas Not Available

Conventional Controls

Low Pressure Backup Control CI/CO 17°F /7°F –8.3°C / –13.9°C

Total Working Refrigerant Charge [4]

Air-Cooled

With Recommended Condensing Unit Installed

6 ft	3 lbs, 10 oz	/	1.63 kg
8 ft	6 lbs, 2 oz	/	2.74 kg
12 ft	9 lbs, 13 oz	/	4.44 kg

Water-Cooled

With Recommended HMDSLMT Condensing Unit Installed

6 ft	2 lbs, 10 oz	/	1.18 kg
8 ft	3 lbs, 8 oz	/	1.59 kg
12 ft	4 lbs, 10 oz	/	2.09 kg

[4] The Total Refrigerant Charge includes the case and condensing unit. Both ship pre-charged with a portion of the total refrigerant.

Product Data

Recommended Usable Cube [6] (Cu Ft/Ft) 6.97 ft^3/ft (2.12 m^3/m)

AHRI Total Display Area [5] (Sq Ft/Ft) 3.96 ft^2/ft (1.20 m^2/m)

Shelf Area [6] (Sq Ft/Ft) 3.83 ft^2/ft (1.18 m^2/m)

[5] Computed using AHRI 1200 standard methodology: Total Display Area, ft^2 [m^2]/Unit of Length, ft [m]

[6] Shelf Surface Area and Recommended Usable Cube is composed of bottom deck plus standard shelf complement for this model: (1) row of 16-in. shelves.

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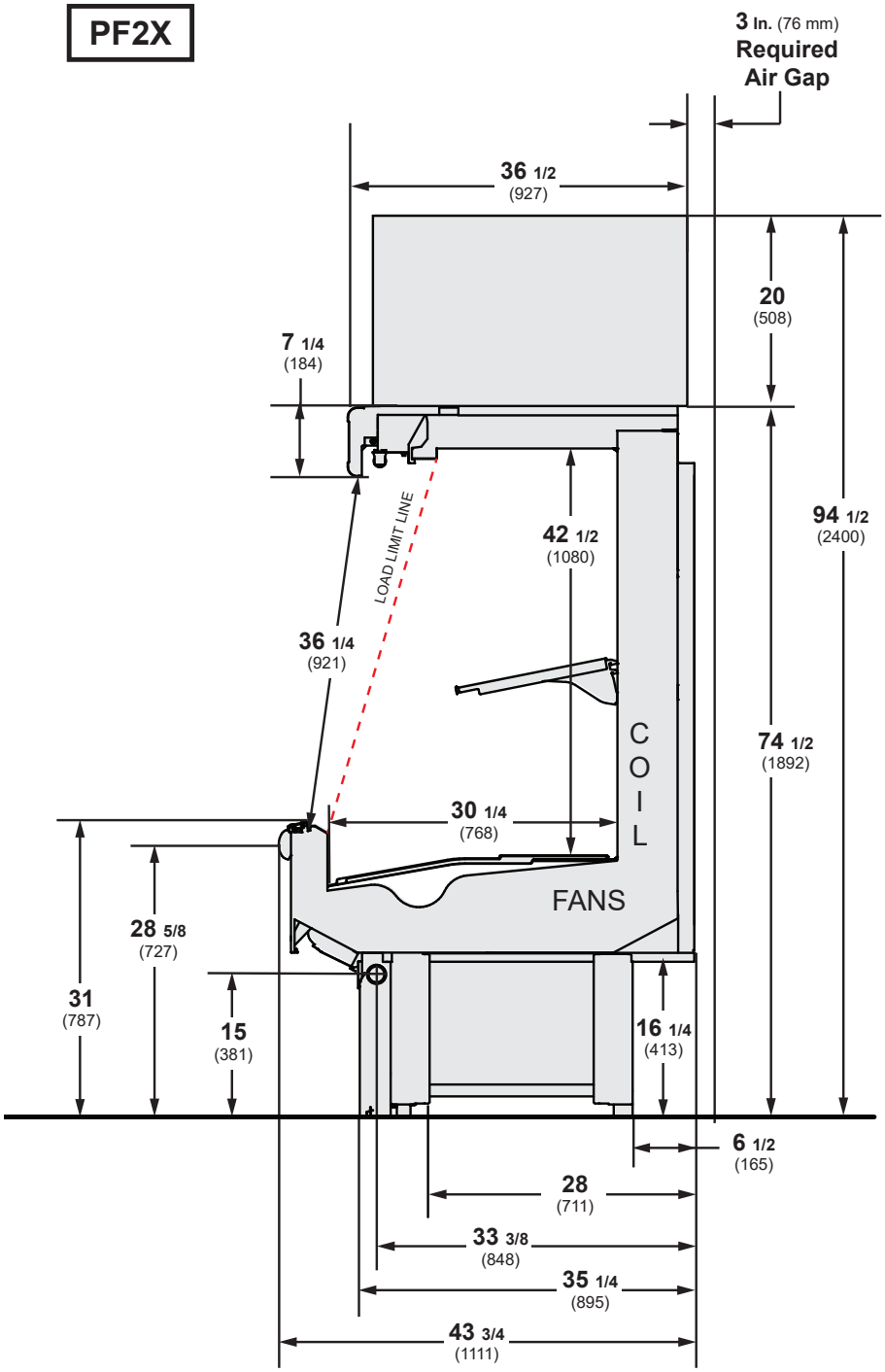
Other optional kits (top piping and vent fans) add to the overall case height.

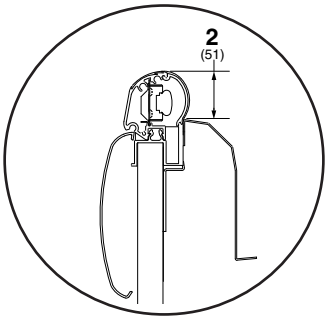
3-in. between back to back cases.

Shelf complement shown as tested:

1 row of 16-in. shelves spaced equally between bottom display pan and interior top panel.



OPTIONAL RAIL LIGHT



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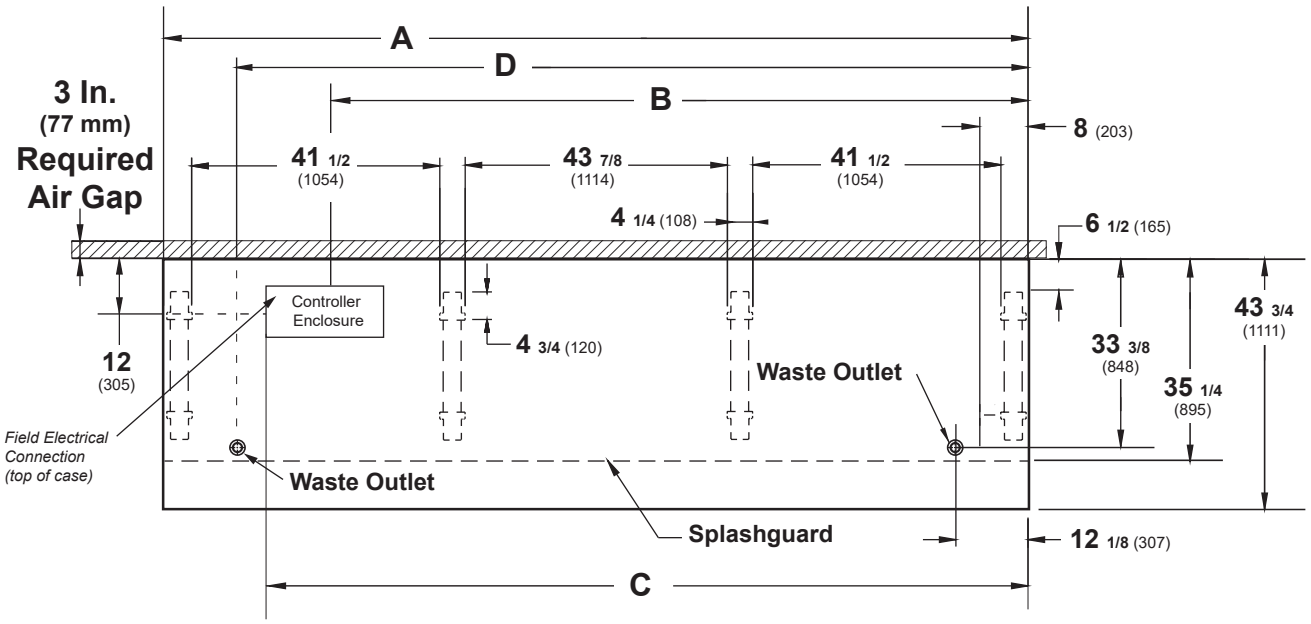
Engineering
Plan View

Dimensions shown as inches and (mm).



	6 ft	8 ft	12 ft
General			
(A) Case Length *(without ends or partitions)*	72 3/8 (1838)	96 3/8 (2448)	144 1/2 (3670)
(Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)			
Maximum O/S dimension of case back to front			
(includes bumper)	43 3/4 (1111)	43 3/4 (1111)	43 3/4 (1111)
Back of case to front of splashguard	35 1/4 (895)	35 1/4 (895)	35 1/4 (895)
Back of case to O/S edge of front leg	32 (813)	32 (813)	32 (813)
Distance between edges of external legs and center legs	29 1/2 (750)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
Electrical Service *(Electrical Field Wiring connection point)*			
(B) RH End of case to center of top electrical enclosure	48 (1219)	72 (1829)	120 1/8 (3051)
Back of case to center of top eletrical enclosure	12 (305)	12 (305)	12 (305)
Length of top electrical enclosure	24 1/8 (613)	24 1/8 (613)	24 1/8 (613)
(C) RH End of case to LH end of top electical enclosure	60 (1524)	84 (2134)	132 1/8 (3356)
Waste Outlets *(One each end)*			
(D) RH End of case to the center of LH waste outlet	60 1/4 (1530)	84 1/4 (2140)	132 3/8 (3363)
RH End of case to the center of RH waste outlet	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)
Back O/S of case to center of waste outlets	33 3/8 (848)	33 3/8 (848)	33 3/8 (848)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)

Electrical Data

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Number of Fans	6ft	8 ft	12 ft
8 in. (7W)	-	2	3
7 in. (4W)	2	-	-

	Amperes			Watts		
Evaporator Fan	**6 ft**	**8 ft**	**12 ft**	**6ft**	**8 ft**	**12 ft**
120V 50/60Hz Energy Efficient	0.24	0.38	0.57	16	28	42
Minimum Circuit Ampacity						
120V 50/60Hz Energy Efficient	0.44	0.58	0.77			
Maximum Over Current Protection						
120V	20	20	20			

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			
	6 ft	**8 ft**	**12 ft**		**6 ft**	**8 ft**	**12 ft**	
STANDARD LIGHTING								
Ultra Canopy								
1 Row	0.16	0.26	0.32	0.48	19	31	43	64
Canopy								
1 Row	0.16	0.26	0.32	0.48	19	32	39	58
1 Row HO	0.22	0.33	0.44	0.66	27	40	53	79
Shelf								
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
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

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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.) Schedule 40 PVC	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

ESTIMATED SHIPPING WEIGHT †

Case				**Solid End**
	6 ft	***8 ft***	***12 ft***	***(each)***
lb *(kg)*	800 (363)	1000 (454)	1200 (544)	75 (34)

† Actual weights will vary according to optional kits included.

Shelf Options

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

12-inch
14-inch
16-inch
18-inch

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

Standard shelf complement for test purposes: (1) 16-in. shelf, evenly distributed vertically

Fan Wiring
Offtime Defrost

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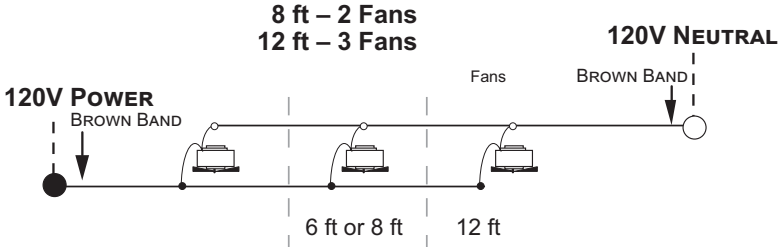
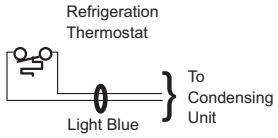
2 & 3 Fans

6 ft – 2 Fans
8 ft – 2 Fans
12 ft – 3 Fans





WARNING

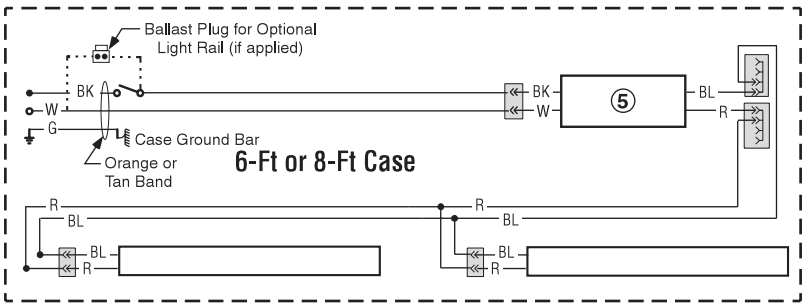
All components must have mechanical ground, and the merchandiser must be grounded.

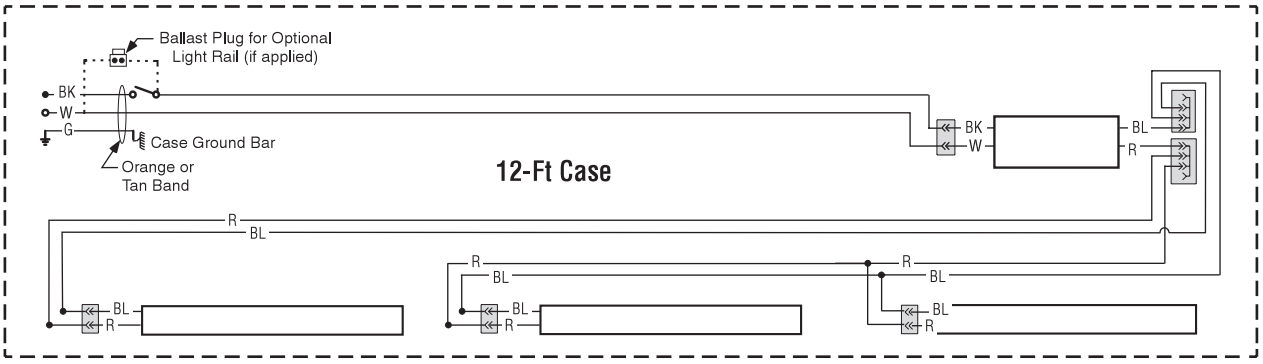
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

● = **120V POWER** ○ = **120V NEUTRAL** ⏚ = **FIELD GROUND** = **CASE GROUND**

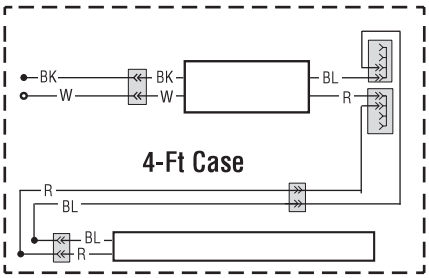
Optional Canopy & Rail Light Circuits LED Fixtures

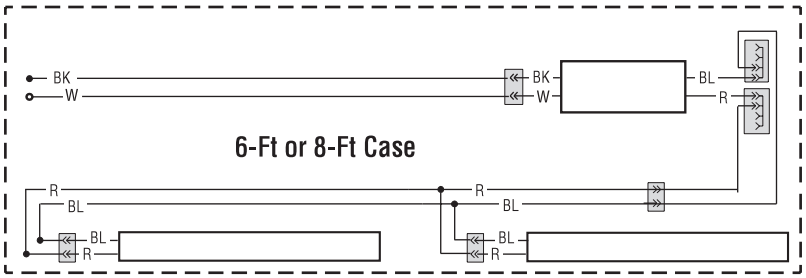
LED Canopy Lighting — 1 Row

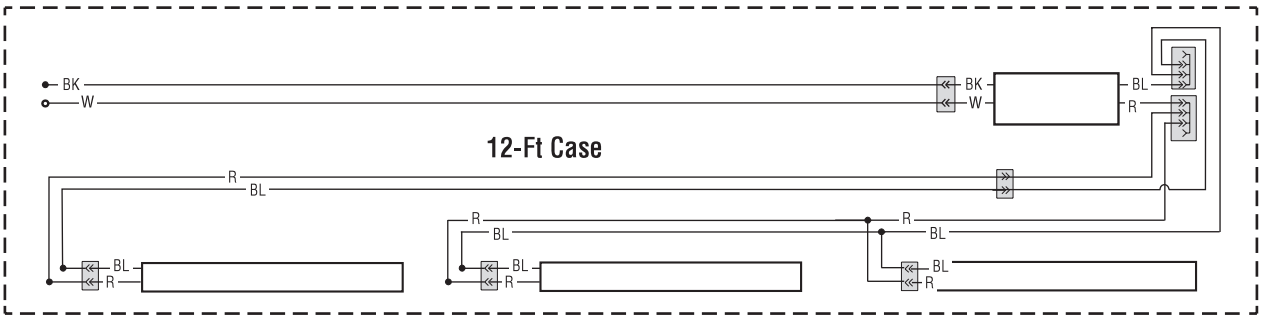




LED Rail Lighting — 1 Row







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Optional Shelf Lighting LED Fixtures

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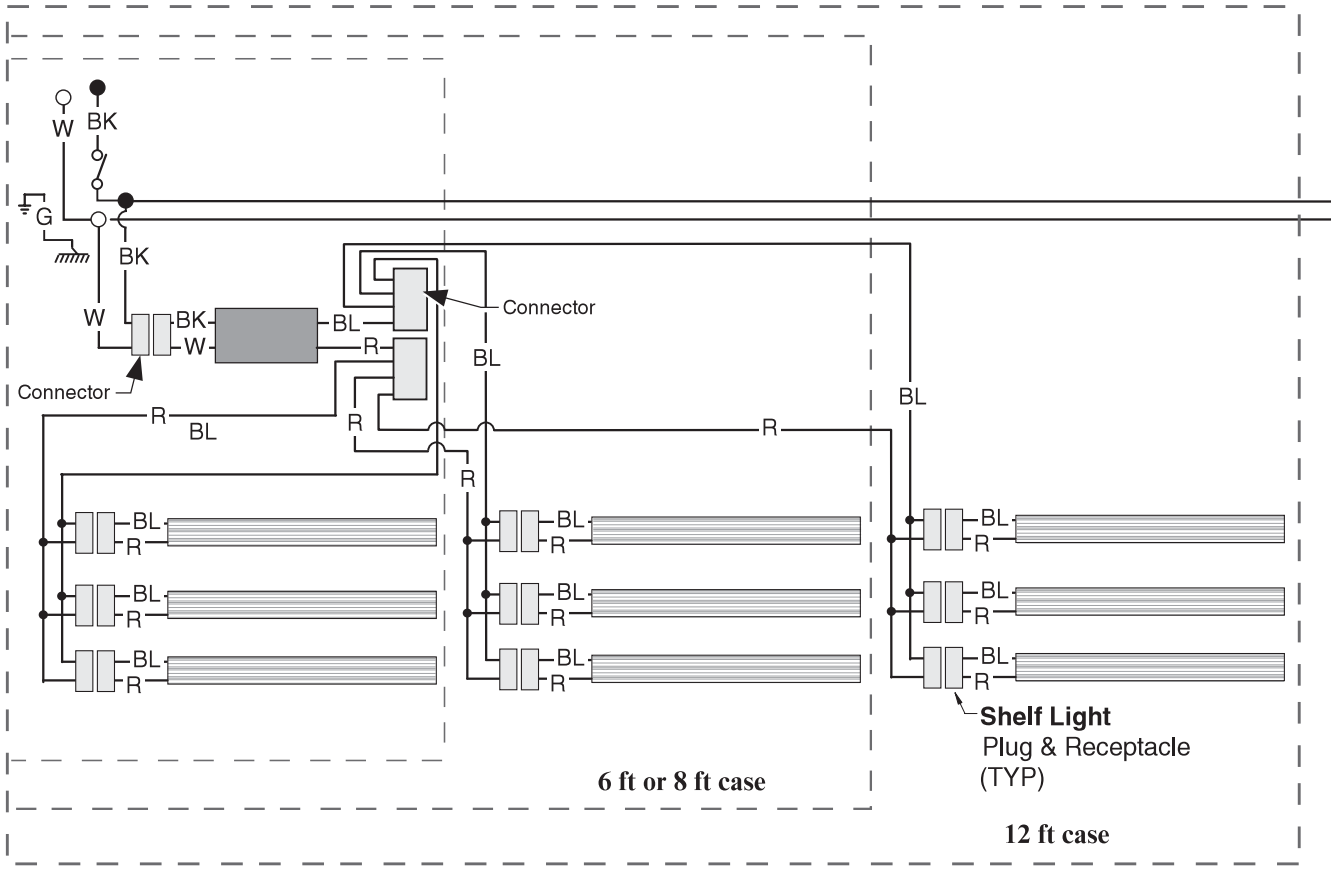
Optional Shelf Harness and LED Light Circuits for 2 or 3 Rows of Shelves



WARNING

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● = 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 5. 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 0.70. 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 with 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: April 2020: Original Issue.

Revision B: Updated refrigeration charges, page 3.