

# HUSSMANN®

# microDS™

## Insight® IC5BU-W

Dairy / Delicatessen / Beverage

Water-cooled

Self-Contained

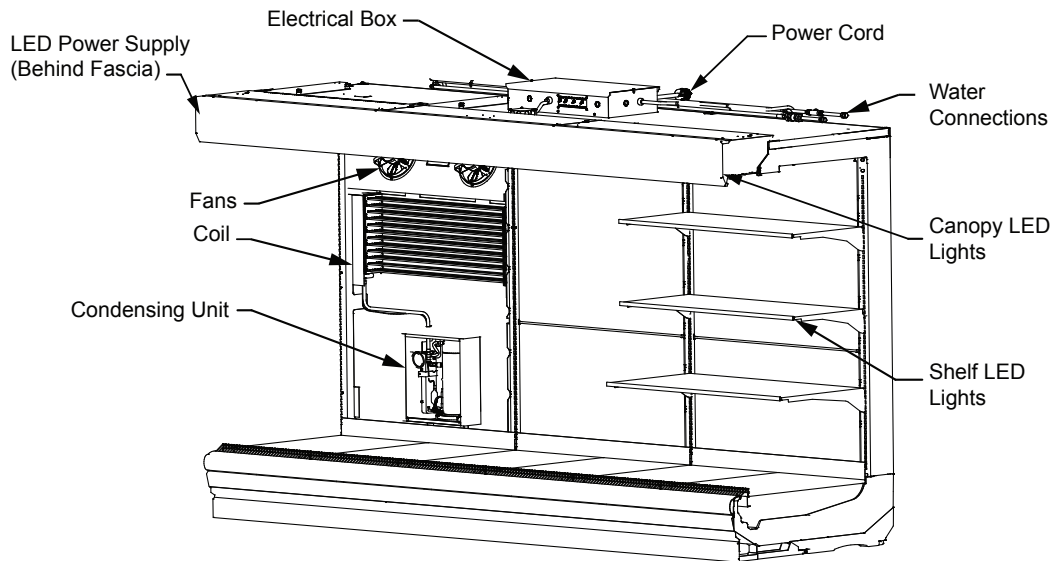
R290 (Propane)

Merchandiser Data Sheet

**P/N 3047946\_G**

**UL EPH® Certified**

September 2021



\*Coils, fans and condensing units are modular with one per 3 or 4 foot section.

Portion of parts removed for clarity.

12 foot merchandiser shown.

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

### UL EPH Certification

This merchandiser model is manufactured to meet ANSI/SCC Standards requirements for construction, materials, and cleanability.

**IMPORTANT**

**ONE FLOOR DRAIN IS REQUIRED FOR EACH CASE.**

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 8
Plan View	Page 4	QR Code for Parts and Product Information	Page 14
Electrical Loads	Page 5	Revision History	Page 14

Data sheet-Insight IC5BU-W

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 IC5BU-W**  
Dairy / Delicatessen

**Refrigeration Data <sup>1</sup>**

IC5BU-W		Optimal Shelf Life
Application		Dairy/Deli/ Beverage/ Produce
Unlit Shelves	Discharge Air °F (°C)	29 (-1.7)
	Average Evaporator °F (°C)	26 (-3.3)
Lit Shelves	Discharge Air °F (°C)	28 (-2.2)
	Average Evaporator °F (°C)	25 (-3.9)
Fan Speed <sup>2</sup>	IC5BU6W (8.25")	1300 <sup>2</sup>
	IC5BU8W, 12 (8.25")	1500 <sup>2</sup>

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. Some lengths and/or applications require optional fan speed control kits applied by the Hussmann Product Configurator.
3. Water supply design conditions are 41 to 118°F (5 to 48°C).

**Compressor Data**

Total Heat of Rejection	BTU/Hr
6 ft	12,685
8 ft	16,913
12 ft	25,390

**Defrost Data**

Frequency (hours between defrost)	4
<b>OFFTIME</b>	<b>IC5BU-W</b>
Time (minutes)	20
<b>ELECTRIC OR GAS</b>	Not Available
<b>Defrost Water <sup>4</sup></b>	8.1 lb/ft/day (12 kg/m)

<sup>4</sup> (± 15% based on case configuration and product loading).

**Glycol/Water Flow Rate <sup>5</sup>**

	IC5BU-W	
	GPM	LPM
6 ft	6.0	22.7
8 ft	6.0	22.7
12 ft	8.0	30.3

<sup>5</sup> Use a pre-mixed inhibited glycol solution. If the mixing is to be done on site, use only distilled or de-ionized water (do not use city water).

**Charge per unit <sup>6</sup>**

IC5BU-W			
6 ft	0.33 lb	5.3 oz	150 g
8 ft	0.33 lb	5.3 oz	150 g
12 ft	0.33 lb	5.3 oz	150 g

<sup>6</sup> Maximum charge per condensing unit = 150 g.

**Product Data**

<b>Gross Refrigerated Volume<sup>7</sup> (Cu Ft/Ft)</b>	12.9 ft <sup>3</sup> /ft (1.20 m <sup>3</sup> /m)
<b>AHRI Total Display Area<sup>8</sup> (Sq Ft/Ft)</b>	5.1 ft <sup>2</sup> /ft (1.55 m <sup>2</sup> /m)
<b>Shelf Area<sup>9</sup> (Sq Ft/Ft)</b>	8.2 ft <sup>2</sup> /ft (2.49 m <sup>2</sup> /m)

<sup>7</sup> AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft<sup>3</sup>/ft [m<sup>3</sup>/m]

<sup>8</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]

<sup>9</sup> Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (2) 20-inch, (1) 24-inch shelves, evenly distributed vertically.

Insight Multideck Merchandiser, 5 Display Levels,  
Bulk Bottom, Ultra Low Height Front, Water-cooled,  
Self-Contained R290 (Propane)

**Insight IC5BU-W**  
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:  
  
Three rows of shelves (20-in, 20-in, 24-in) spaced equally between bottom display pan and interior top panel.

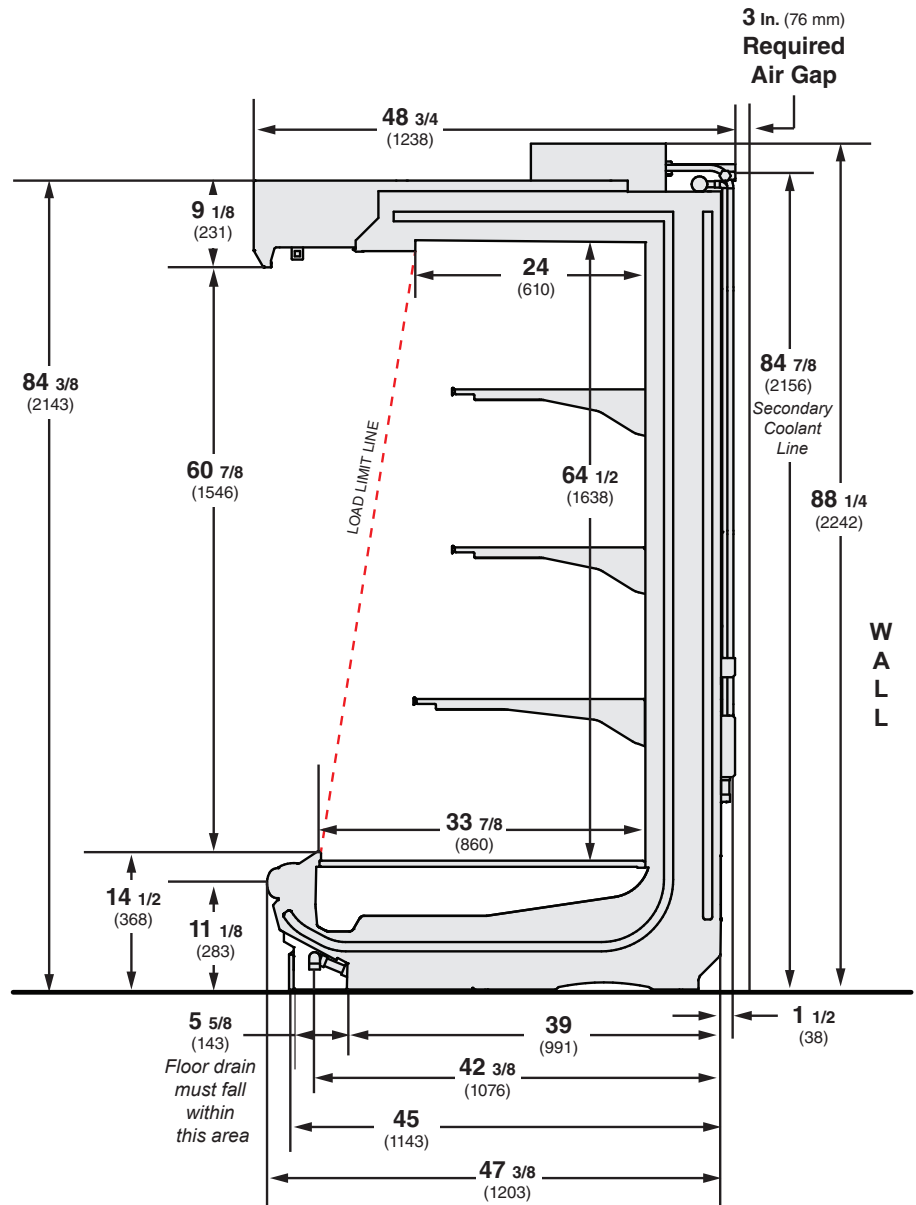
**IC5BU-W**

Dimensions shown as in. and (mm).

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

A minimum 1 1/2-in. clearance required to remove raceway cover, 6 1/2-in. for full access. See the Installation manual for instructions.

3-in. between back to back cases.



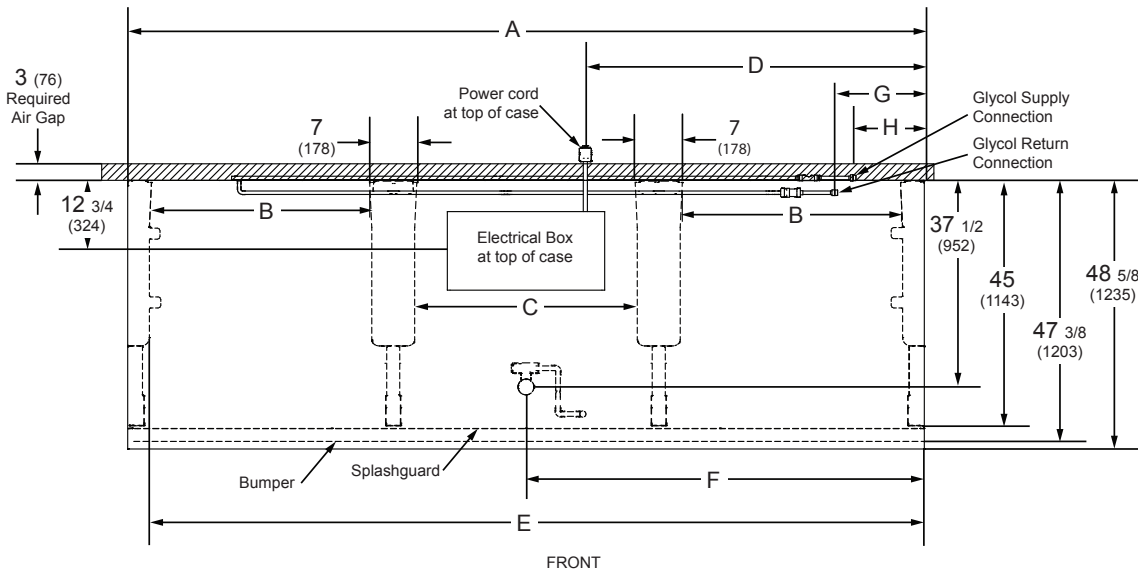
**UL EPH Certification**

This merchandiser model is manufactured to meet ANSI/SCC Standards requirements for construction, materials, and cleanability.

# Engineering Plan View

**IC5BU-W**

Dimensions shown as in. and (mm).



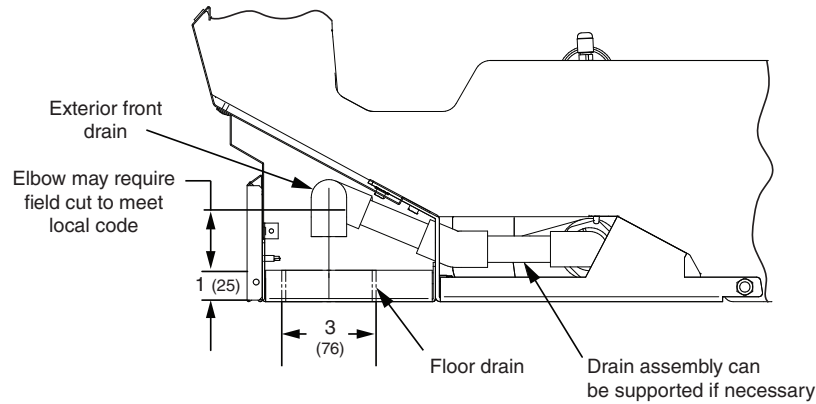
(12 Foot Model shown above)

	6 ft	8 ft	12 ft
<b>General</b>			
(A) Case Length ( <i>without ends or partitions</i> ) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)	72 1/4 (1835)	96 1/4 (2445)	144 3/8 (3668)
Maximum O/S dimension of case back to front ( <i>includes bumper</i> )	48 5/8 (1235)	48 5/8 (1235)	48 5/8 (1235)
Back of case to front of splashguard	45 (1143)	45 (1143)	45 (1143)
(B) Distance between edges of external legs and center legs	29 (737)	41 (1041)	41 (1041)
(C) Distance between edges of center legs	NA	NA	41 1/8 (1045)
Distance between front legs and splashguard	18 (457)	18 (457)	18 (457)
<b>Electrical Service</b> ( <i>Field Electrical Wiring Connection</i> )			
(D) RH End of case to center of Electrical Wiring Connection ( <i>top of case</i> )	9 (229)	13 1/8 (333)	61 1/2 (1562)
Back of case to center of Electrical Wiring Connection	12 3/4 (324)	12 3/4 (324)	12 3/4 (324)
Length of electrical wireway	33 1/2 (851)	45 7/8 (1165)	45 7/8 (1165)
(E) RH end of case to LH end of electrical wireway ( <i>top of case</i> )	70 1/2 (1791)	94 1/2 (2400)	142 5/8 (3630)
<b>Waste Outlets</b> (with required drain extension)			
(F) RH End of case to the center of waste outlet	24 1/8 (613)	24 1/8 (613)	72 1/4 (1835)
Back O/S of case to center of waste outlet(s)	42 3/8 (1076)	42 3/8 (1076)	42 3/8 (1076)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
<b>Refrigeration Outlet</b>			
(G) RH End of case to glycol/water outlet	9 1/2 (241)	15 1/2 (394)	15 3/4 (400)
(H) RH End of case to glycol/water inlet	6 1/2 (165)	12 1/4 (311)	12 3/8 (314)

**Waste Outlet  
Drain Extension  
Option**

**Insight IC5BU-W**  
Dairy / Delicatessen

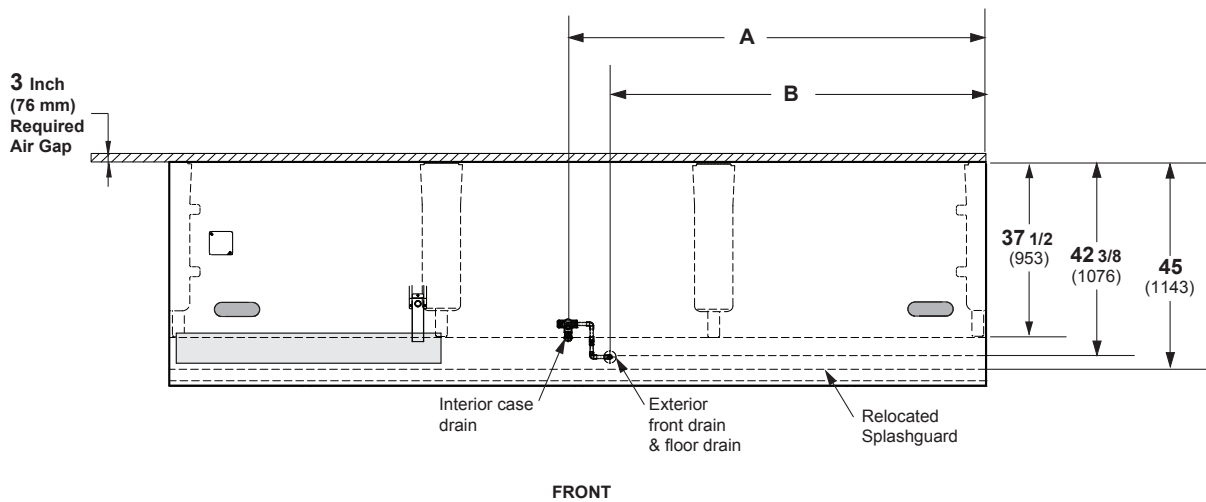
**Drain Extension Option  
(Partial End View)**



**IMPORTANT:** If hub drain is used in lieu of flush floor sink, a drain extension kit must be installed. Hub drains must be located in front of the waste outlet to achieve adequate air gap.

**Engineering  
Plan View**

Dimensions shown as in. and (mm).



(12 Foot Model shown above)

	4 ft	6 ft	8 ft	12 ft
<b>Waste Outlet Drain Option</b>				
(A) RH of case to center of interior case drain	24 1/8 (613)	24 1/8 (613)	24 1/8 (613)	72 1/4 (1835)
(B) RH of case to center of exterior front drain and floor drain	13 3/4 (349)	13 3/4 (349)	13 3/4 (349)	61 7/8 (1572)

## Electrical Data

<b>Number of Fans</b>	<b>6 ft</b>	<b>8 ft</b>	<b>12 ft</b>
8.25-in.	4	4	6

	Amperes			Watts		
	6 ft	8 ft	12 ft	6 ft	8 ft	12 ft
<b>Evaporator Fan</b>						
120V 60Hz Energy Efficient	1.60	1.60	2.40	102	102	153

### Condensing Unit (208V, 3 ph, 60 Hz) Standard

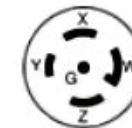
**NOTE:** One compressor can start at a time.

Compressor RLA	10.0	10.0	15.0
Compressor LRA	58/unit	58/unit	58/unit

### NEMA Plugs



L21-20P



L21-30P

### Merchandiser Circuit Requirements (208V, 3 Ph, 60 Hz)

Total Amps	12.6	12.9	19.4
MCA	13.8	14.1	20.6
Maximum Over Current Protection	20	30	30

**Electrical Plug - NEMA** L21-20 L21-30 L21-30

**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

#### Canopy

1 Row	0.26	0.32	0.48	31.6	38.6	58.0
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### OPTIONAL LIGHTING

#### Canopy

1 Row HO	0.33	0.44	0.66	39.5	53.0	79.4
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#### Shelf

1 Row of Shelves	0.12	0.16	0.25	14.1	19.8	29.7
2 Rows of Shelves	0.23	0.33	0.49	28.2	39.5	59.3
3 Rows of Shelves	0.35	0.49	0.74	42.3	59.3	89.0
4 Rows of Shelves	0.47	0.66	0.99	56.4	79.1	118.6
5 Rows of Shelves	0.59	0.82	1.24	70.5	98.9	148.3
6 Rows of Shelves	0.70	0.99	1.48	84.5	118.6	178.0

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting

**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

<b>ESTIMATED SHIPPING WEIGHT †</b>				
<b>Case</b>	<b>6 ft</b>	<b>8 ft</b>	<b>12 ft</b>	<b>Solid End (each)</b>
<b>lb (kg)</b>	1300 (591)	1500 (682)	2000 (909)	120 (55)
† 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

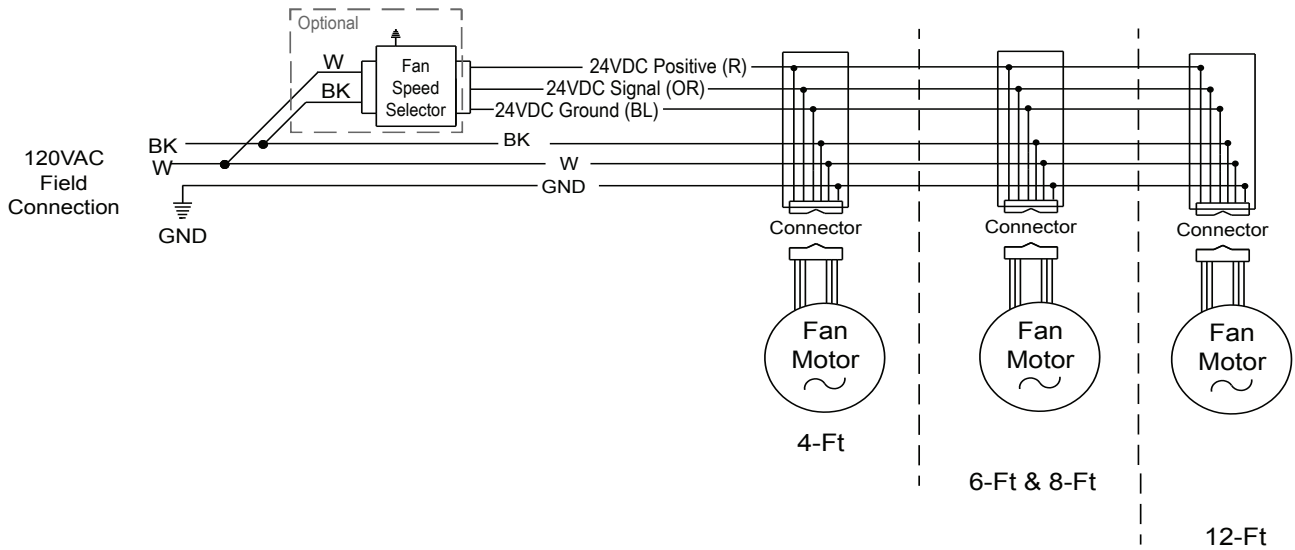
Maximum number of Shelves:8

Maximum number of Lighted Shelves:6

Standard shelf complement for test purposes: (2) 20-in., (1) 24-in. shelves, evenly distributed vertically

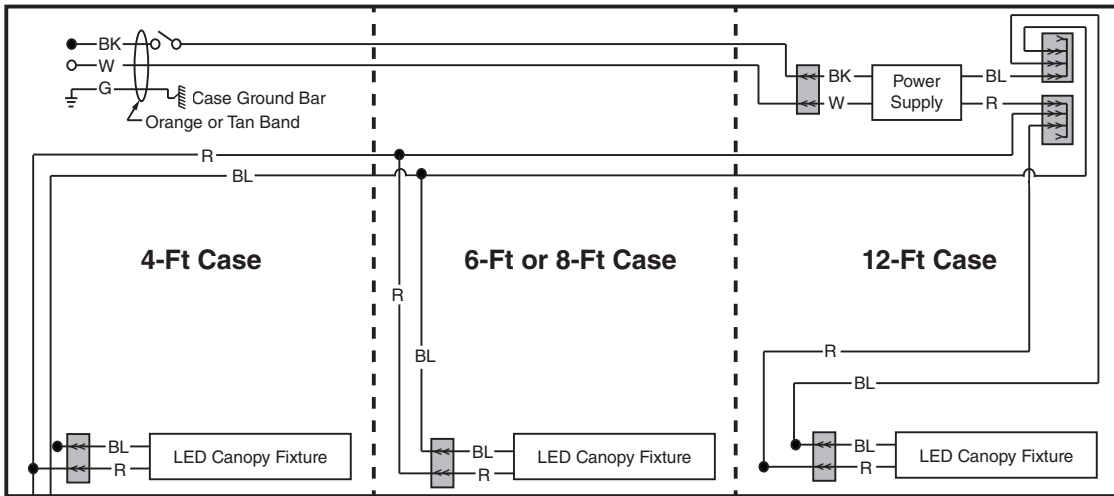
**Insight IC5BU-W**  
Dairy / Delicatessen

**Fan Wiring**  
Offtime Defrost

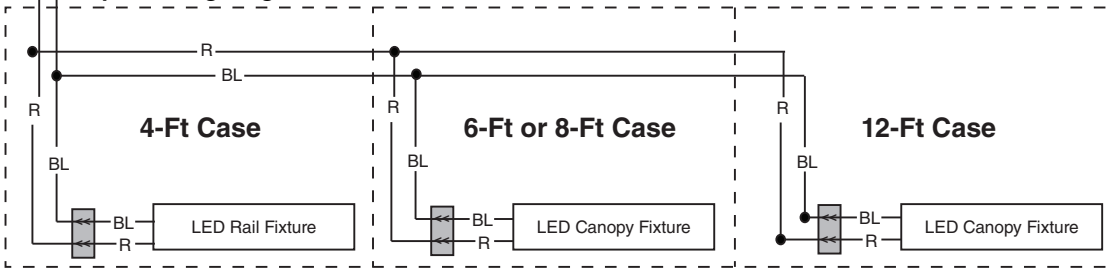


**LED Canopy Light Circuits**

**LED Canopy Lighting - 1 Row**



**Optional Lighting - LED Rail - 1 Row**



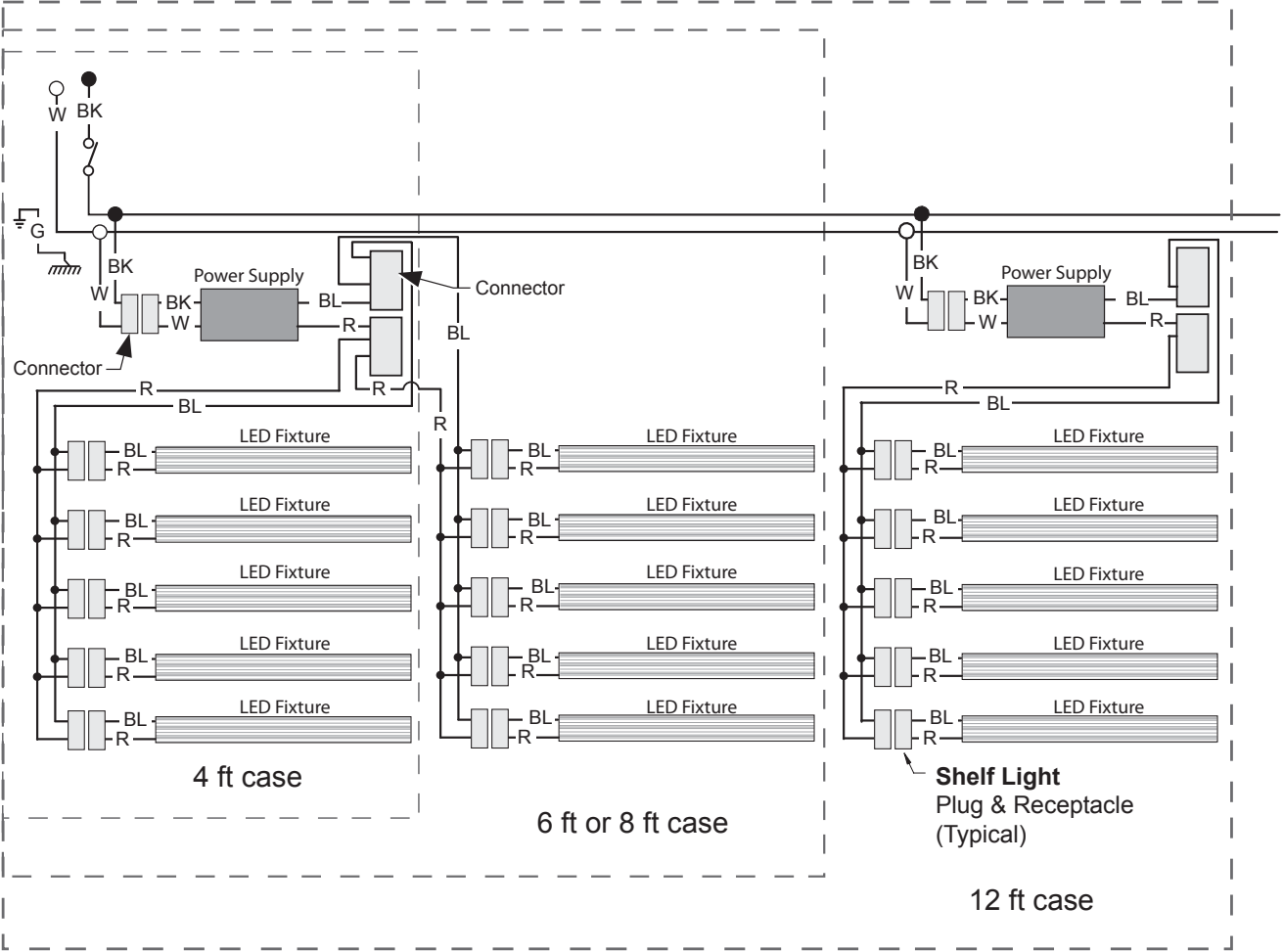
**WARNING**

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  $\overline{\text{m}}$  = CASE GROUND



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

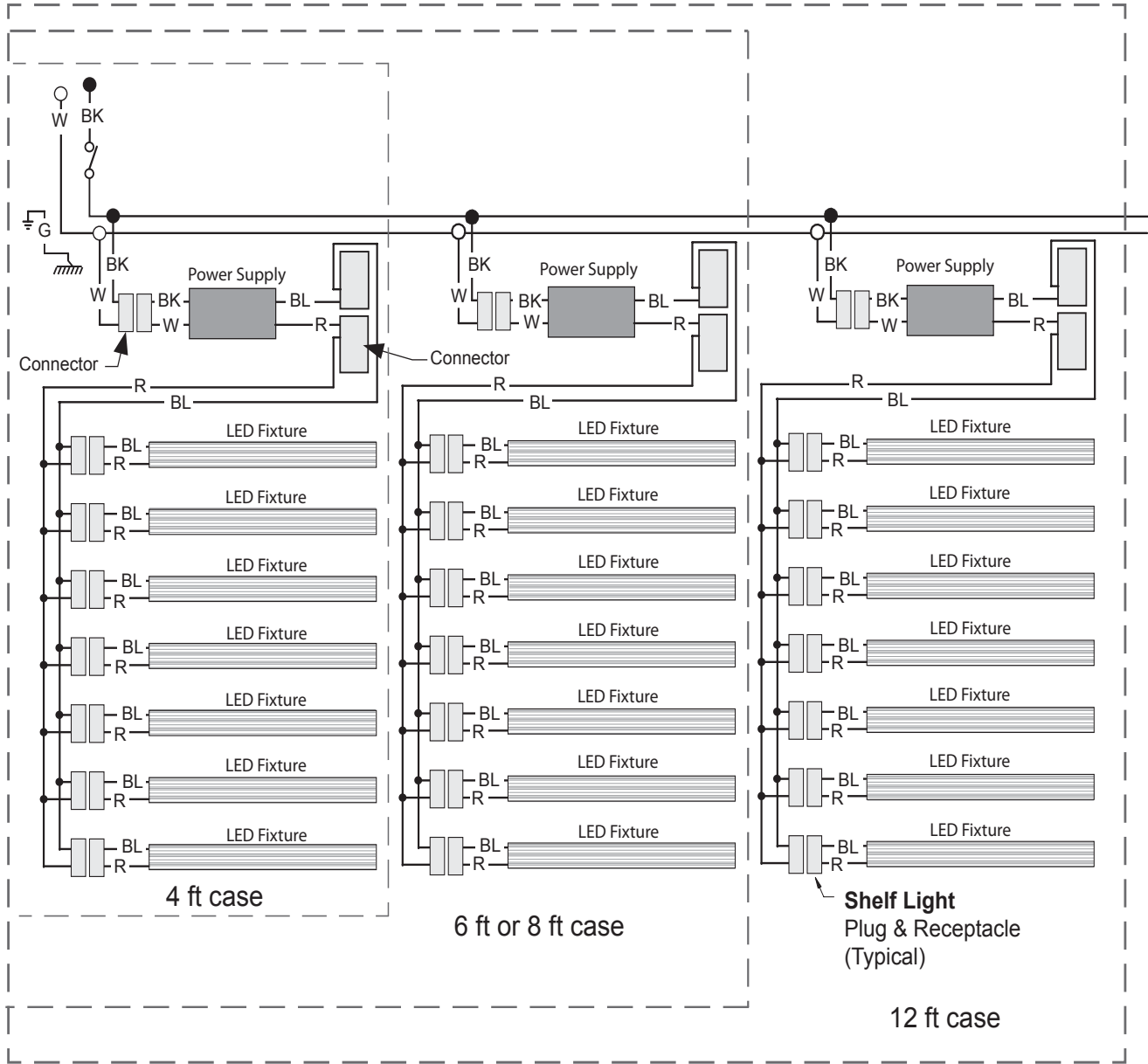


**WARNING**

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

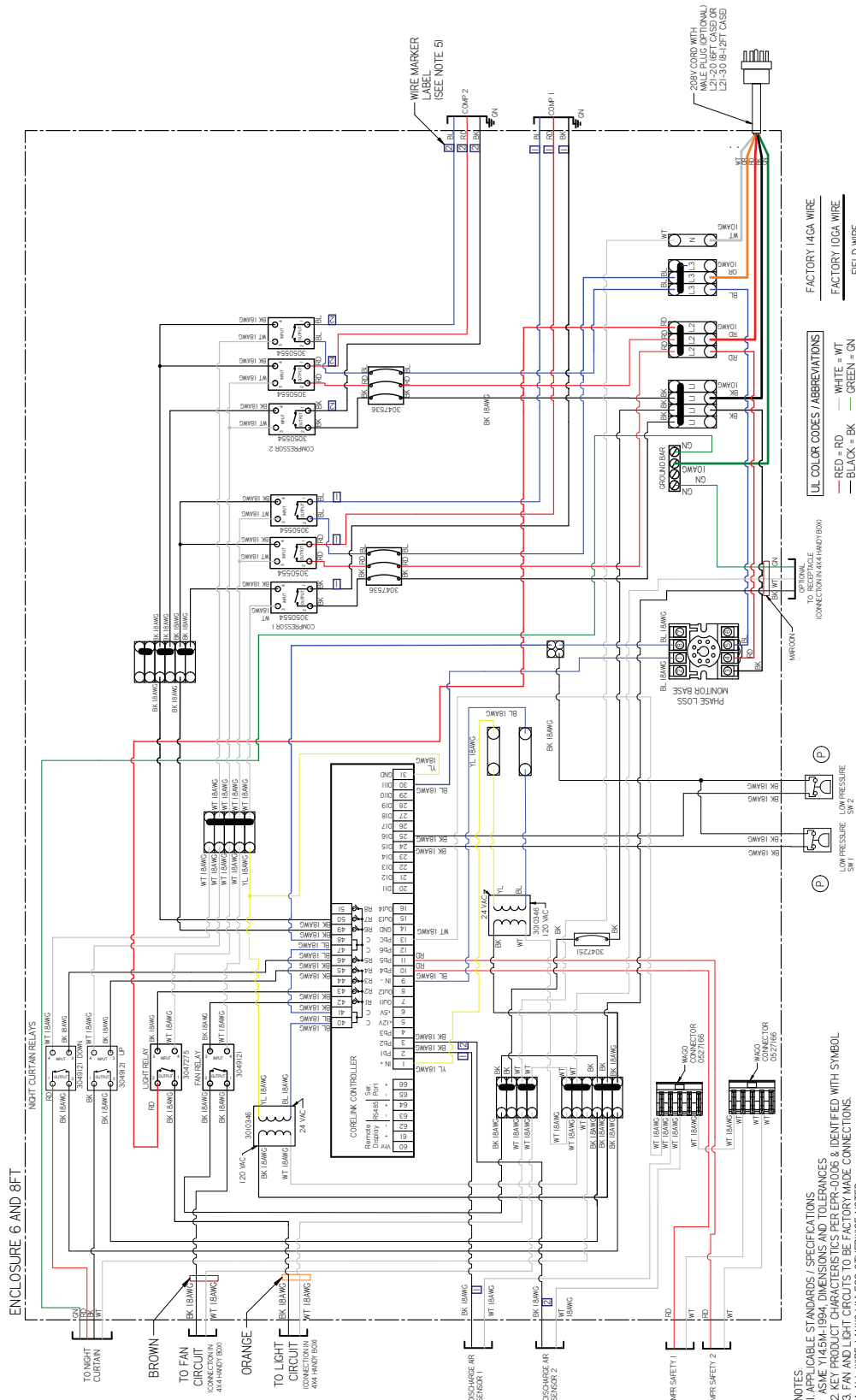


#### WARNING

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    *mm* = CASE GROUND

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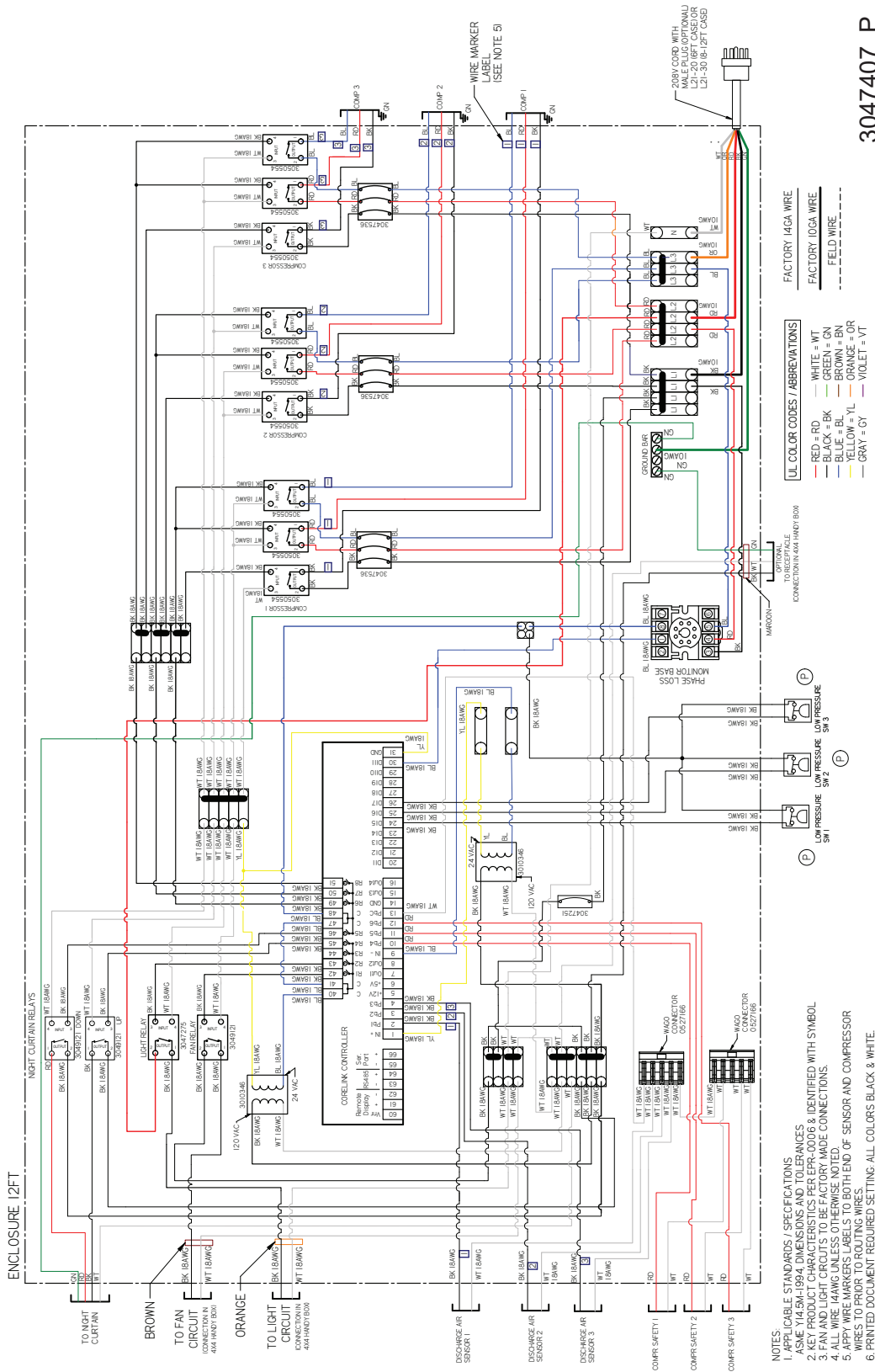


**UL COLOR CODES / ABBREVIATIONS**

RED = RD	WHITE = WT
BLACK = BK	GREEN = GN
BLUE = BL	BROWN = BN
YELLOW = YL	ORANGE = OR
GRAY = GY	VIOLET = VT

**FACTORY 14GA WIRE**  
**FACTORY 10GA WIRE**  
**FIELD WIRE**

- NOTES:**
1. APPLY CABLE STANDARDS / SPECIFICATIONS ASME Y14.5M-1994, DIMENSIONS AND TOLERANCES
  2. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
  3. FAN AND LIGHT CIRCUITS TO BE FACTORY MADE CONNECTIONS.
  4. ALL WIRE 14AWG UNLESS OTHERWISE NOTED
  5. APPLY WIRE MARKERS LABELS TO BOTH END OF SENSOR AND COMPRESSOR WIRES TO PRIOR TO ROUTING WIRES
  6. PRINTED DOCUMENT REQUIRED SETTING ALL COLORS BLACK & WHITE

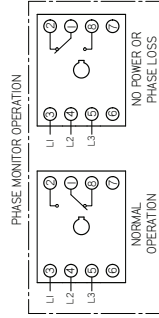


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# CoreLink Propane Wiring

Insight **IC5BU-W**  
Dairy / Delicatessen

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12 FT SENSOR WIRE CUT LENGTHS		
CASE LENGTH	DESCRIPTION	CUT LENGTH / STRIPPED END
12 FT	COMPR SAFETY 1 ILHI	98 / 50
12 FT	COMPR SAFETY 2 ICTRI	118 / 50
12 FT	COMPR SAFETY 3 IRHI	118 / 50
12 FT	DISCHARGE AIR SENSORS 1 ILHI	98 / 187
12 FT	DISCHARGE AIR SENSORS 2 ICTRI	50 / 187
12 FT	DISCHARGE AIR SENSORS 3 IRHI	98 / 187
12 FT	LOW PRESSURE SW 1 ILHI	98 / 187
12 FT	LOW PRESSURE SW 2 LLHI	50 / 187
12 FT	LOW PRESSURE SW 3 LLHI	98 / 187

6 AND 8 FT SENSOR WIRE CUT LENGTHS		
CASE LENGTH	DESCRIPTION	CUT LENGTH / STRIPPED END
6 FT	COMPR SAFELY 1 ILHI	88 / 50
6 FT	COMPR SAFELY 2 IRHI	105 / 50
6 FT	DISCHARGE AIR SENSORS 1 ILHI	80 / 187
6 FT	DISCHARGE AIR SENSORS 2 IRHI	41 / 187
6 FT	LOW PRESSURE SW 1 ILHI	80 / 187
6 FT	LOW PRESSURE SW 2 LLHI	41 / 187
8 FT	COMPR SAFELY 1 ILHI	98 / 50
8 FT	COMPR SAFELY 2 IRHI	108 / 50
8 FT	DISCHARGE AIR SENSORS 1 ILHI	98 / 187
8 FT	DISCHARGE AIR SENSORS 2 IRHI	50 / 187
8 FT	LOW PRESSURE SW 1 ILHI	98 / 187
8 FT	LOW PRESSURE SW 2 LLHI	50 / 187

**UL COLOR CODES / ABBREVIATIONS**

— RED = RO	— WHITE = WT
— BLACK = BK	— GREEN = GN
— BLUE = BL	— BROWN = BN
— YELLOW = YL	— ORANGE = OR
— GRAY = GY	— VIOLET = VT

**FACTORY WIRE**

— FACTORY MCA WIRE
— FACTORY LCCA WIRE
— FIELD WIRE

- NOTES
1. APPLICABLE STANDARDS / SPECIFICATIONS
  2. ASME Y14.5M-1994 DIMENSIONS AND TOLERANCES
  3. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
  4. FAN AND LIGHT CIRCUITS TO BE FACTORY MADE CONNECTIONS.
  5. ALL WIRE LEADINGS UNLESS OTHERWISE NOTED.
  6. WIRE LENGTHS ARE TO THE BOTH END OF SENSOR AND COMPRESSOR WIRES TO PROPER ROUTING WIRES.
  7. PRINTED DOCUMENT REQUIRED SETTING ALL COLORS BLACK & WHITE.



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**

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## Revision History

Revision A: January 2018: Original Issue

Revision B: January 2018: Updated logos and replacement parts.

Revision C: May 2018: Removed NSF references.

Revision D: November 2018: Updated performance data and wiring diagrams.

Revision E: February 2019: Added MicroDS logo.

Revision F: June 2021: Updated refrigeration data and wiring diagrams; removed replacement parts page.

Revision G: September 2021: Updated wiring diagrams.