

HUSSMANN®

microDS™

Insight® ID5SM-W

Dairy / Deli / Beverage /

Produce / Meat

Water-cooled

Self-Contained

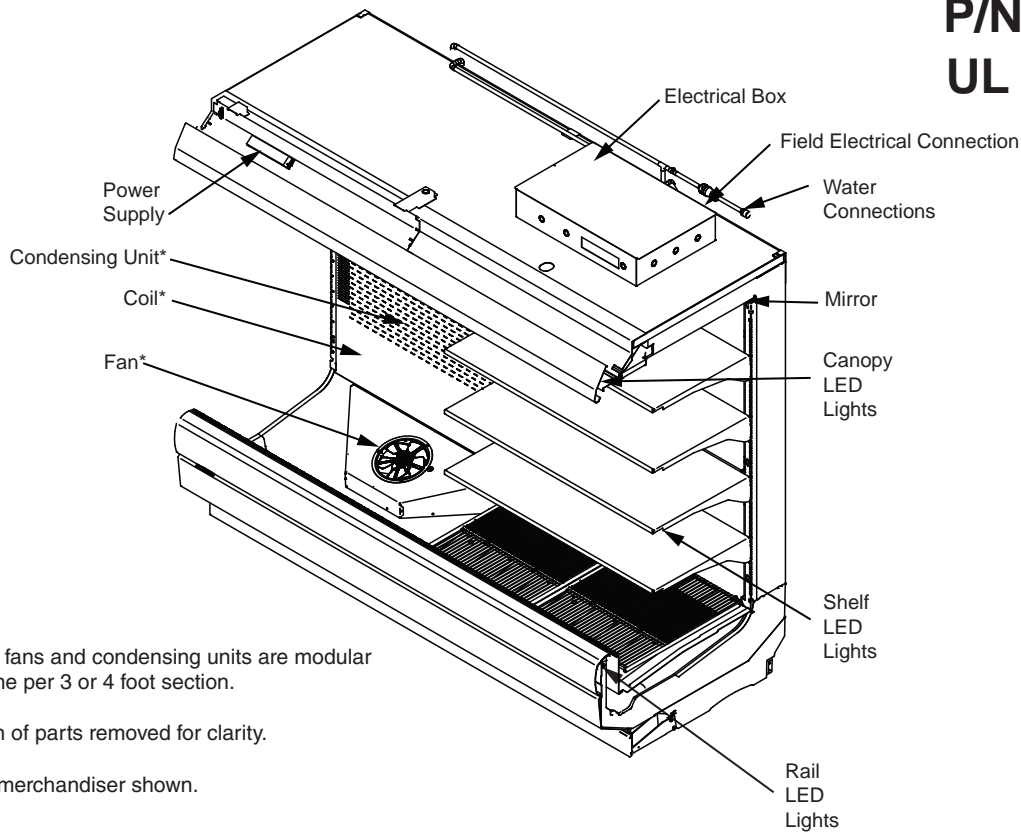
R-290 (Propane)

Merchandiser Data Sheet

P/N 3080585_F

UL EPH® Certified

April 2022



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

Portion of parts removed for clarity.

8 foot merchandiser shown.



UL EPH Certification

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

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

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Data sheet-Insight ID5SM-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.

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Refrigeration Data ¹

ID5SM-W		Optimal Shelf Life 4,8,12 ft		Optimal Shelf Life 6 ft	
Application		Dairy/Deli/ Beverage/ Produce	Convertible / Meat	Dairy/Deli/ Beverage/ Produce	Convertible / Meat
Unlit Shelves	Discharge Air °F (°C)	30 (-1.11)	29 (-1.67)	28 (-2.22)	30 (-1.11)
	Deadband	8	8	8	8
Lit Shelves	Discharge Air °F (°C)	30 (-1.11)	29 (-1.67)	28 (-2.22)	30 (-1.11)
	Deadband	8	8	8	8
Fan Speed ²		1500	1700	1600	1600

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 50°F to 115°F (10°C to 46°C).
4. Reduce refrigeration load by 15%, if fitted with CaseShieldPTM

Compressor Data

Total Heat of Rejection⁵	BTU/Hr
4 ft	9,379
6 ft	15,757
8 ft	18,757
12 ft	28,136

⁵ THR listed for maximum design conditions, normal operating loads may be lower.

Cooling Water Pressure Drop ⁷

	PSI
4 Ft	2.5
6 Ft	5.0
8 Ft	5.0
12 Ft	9.0

Cooling Water Design TD

10°F

⁷ Auto-Balancing Valve requires a minimum of 2 PSI to operate. Subtract 2 PSI if the Auto-Balancing Valve is not supplied.

Glycol/Water Flow Rate ⁸

	GPM	LPM
4 ft	2.0	7.6
6 ft	4.0	15.1
8 ft	4.0	15.1
12 ft	6.0	22.7

⁸ 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).

Defrost Data

Frequency (hours between defrost) 4

OFFTIME **ID5SM-W**
Time (minutes) 20

ELECTRIC OR GAS Not Available

Defrost Water ⁶ 8.1 lb/ft/day
(12.1 kg/m)

⁶ (± 15% based on case configuration and product loading).

Charge per unit ⁹

4 ft	0.33 lb	5.3 oz	150 g
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

⁹ Maximum R-290 charge per condensing unit = 150 g.

Product Data

Gross Refrigerated Volume ¹⁰ (Cu Ft/Ft) 11.7 ft³/ft (1.09 m³/m)

AHRI Total Display Area ¹¹ (Sq Ft/Ft) 4.27 ft²/ft (1.30 m²/m)

Shelf Area ¹² (Sq Ft/Ft) 9.85 ft²/ft (3.00 m²/m)

¹⁰ AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]

¹¹ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

¹² Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (4) rows of 22-inch shelves

Insight Multideck Merchandiser, 5 Display Levels,
Standard Bottom, Standard Height Front,
Water-cooled, Self-Contained R-290 (Propane)

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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:

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

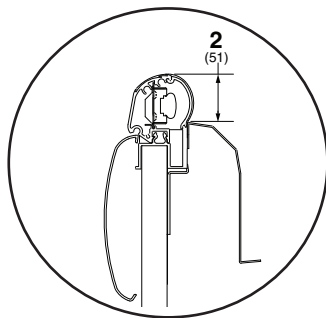
Other optional kits may add to the overall case height.

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.

4-in. between back to back cases.

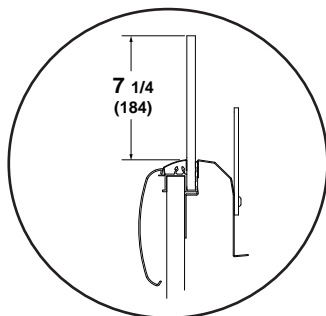
Shown with Ellipse Option Canopy and Bumper.

OPTIONAL RAIL LIGHT



Rail light cannot be used with glass front option.

OPTIONAL GLASS FRONT

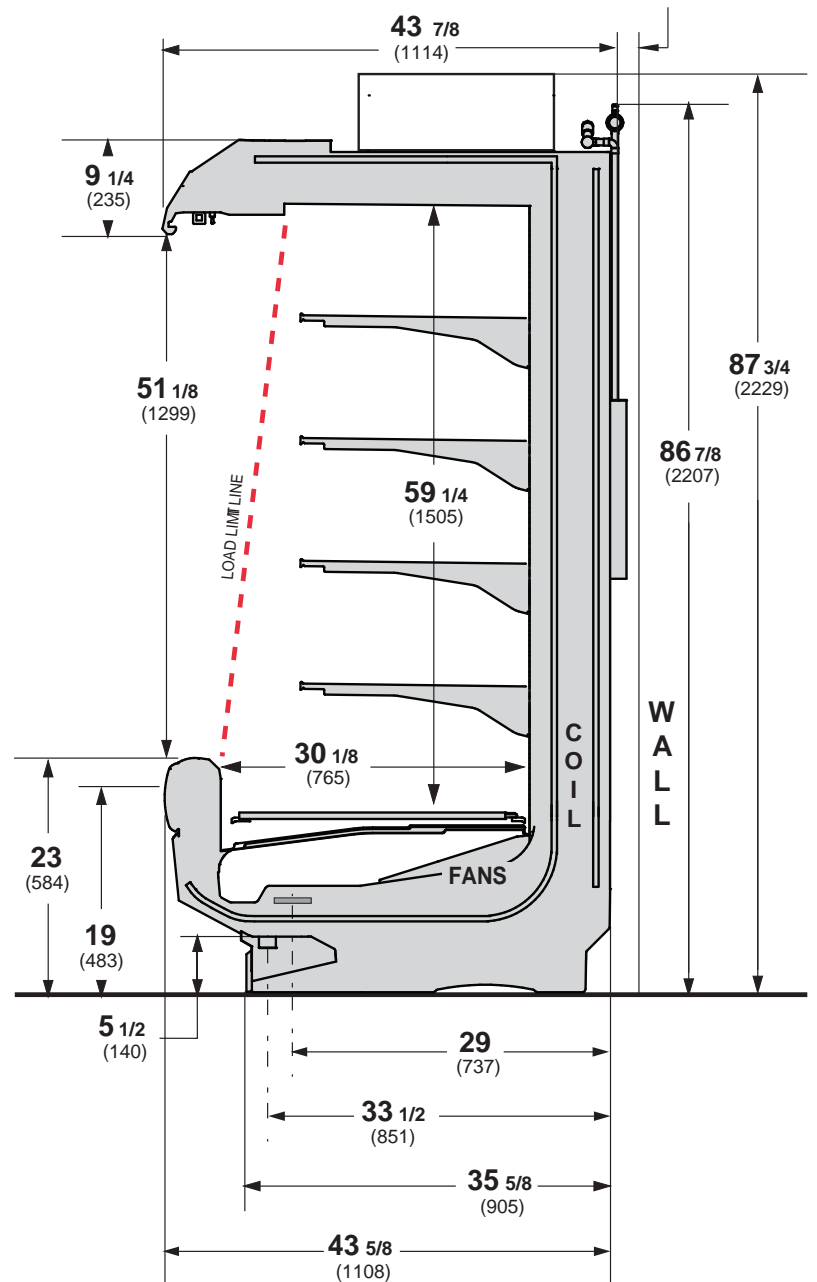


Glass front cannot be used with rail light option.

Dimensions shown as in. and (mm).

ID5SM-W

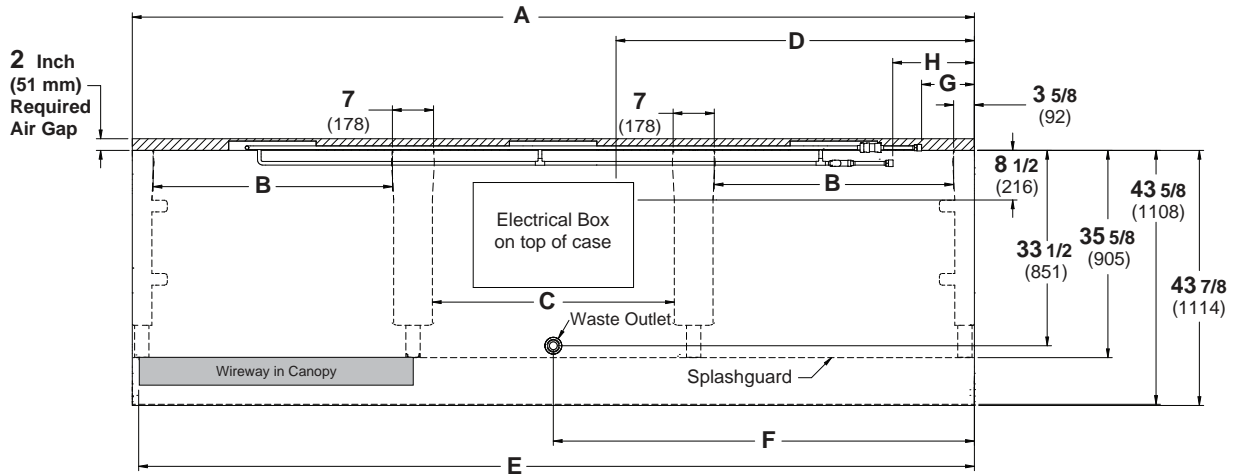
2 In. (51 mm)
Required
Air Gap



Engineering Plan View

ID5SM-W

Dimensions shown as in. and (mm).



FRONT

(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)	11 (279)	9 (229)	13 1/2 (343)	61 1/2 (1562)
Back of case to center of Field Electrical Wiring Connection	8 1/2 (216)	8 1/2 (216)	8 1/2 (216)	8 1/2 (216)
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)
Waste 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) RH End of case to glycol/water outlet	4 3/8 (111)	3 1/4 (83)	9 (229)	9 (229)
(H) RH End of case to glycol/water inlet	9 (229)	7 7/8 (200)	14 (356)	14 (356)

Electrical Data

Number of Fans	4 ft	6 ft	8 ft	12 ft
8.25-in.	1	2	2	3

Evaporator Fan	Amperes				Watts			
	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

Condensing Unit (208V, 3 Ph, 60Hz) Standard

NOTE: One compressor can start at a time.

Compressor RLA	4.0	8.0	8.0	12.0
Compressor LRA	58/unit	58/unit	58/unit	58/unit

Merchandise Circuit Requirements (208V, 3 Ph, 60 Hz)

Total Amps	4.8	9.2	9.6	14.4
MCA	6.0	11.4	12.0	18.0
Maximum Over Current Protection	20	20	20	20



NEMA Plug L21-20 (All lengths)

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
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

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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.) 1 1/4
 Schedule 40 PVC

ESTIMATED SHIPPING WEIGHT †

Case	4 ft	6 ft	8 ft	12 ft	Solid End (each)
lb (kg)	750 (340)	950 (431)	1100 (499)	1250 (567)	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

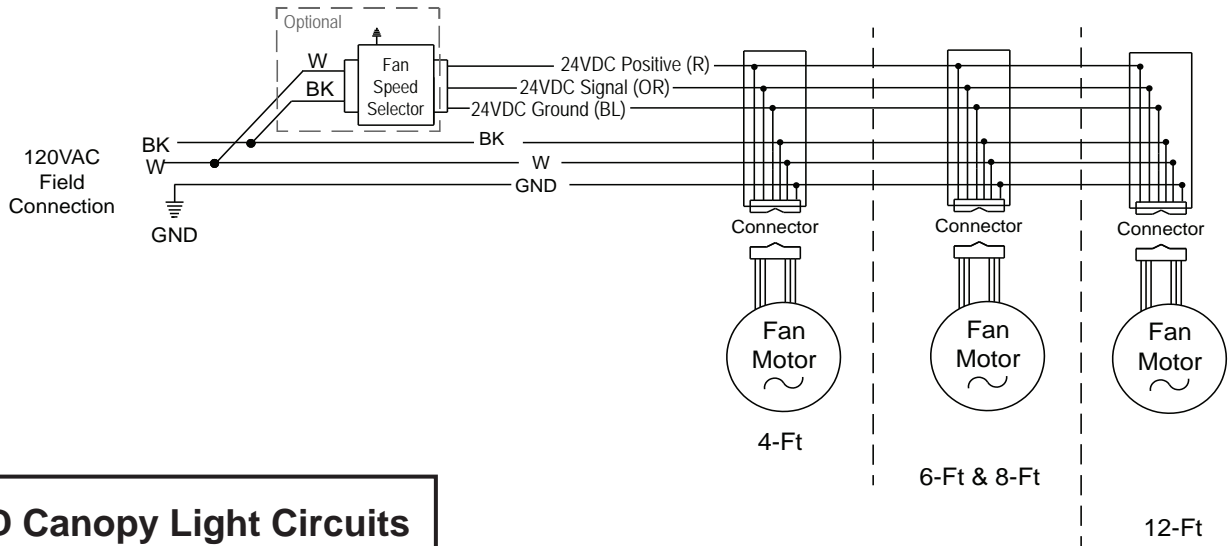
Maximum number of Shelves: 7

Maximum number of Lighted Shelves: 6

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

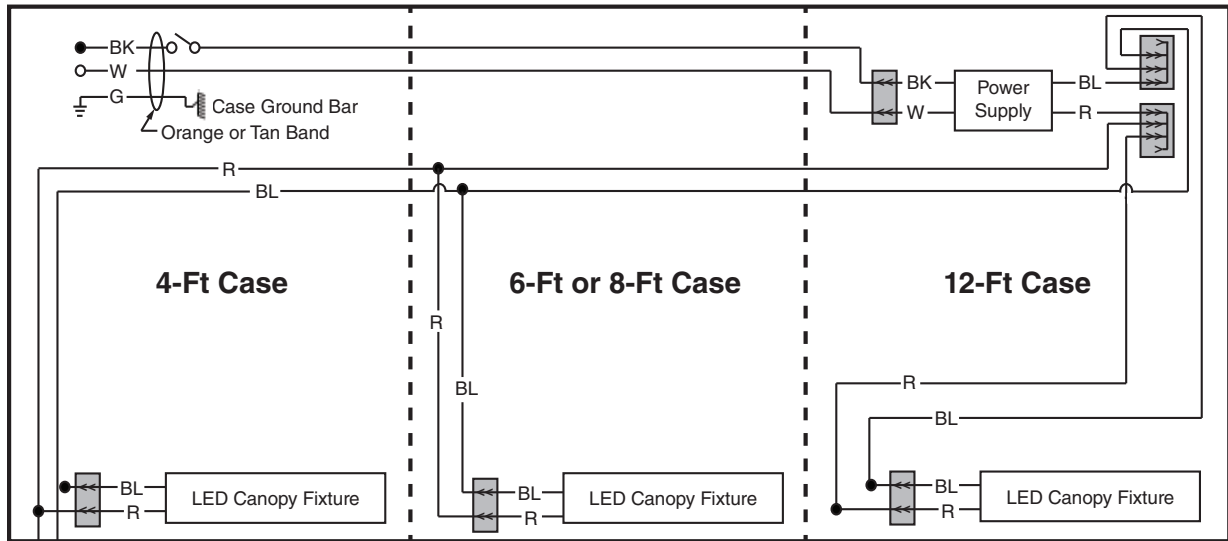
Fan Wiring Offtime Defrost

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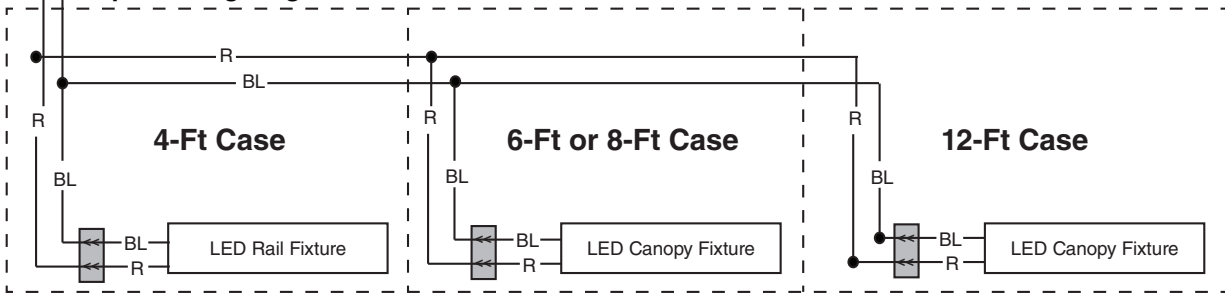


LED Canopy Light Circuits

EcoShine II LED Canopy Lighting - 1 Row



Optional Lighting - EcoShine II LED Rail - 1 Row

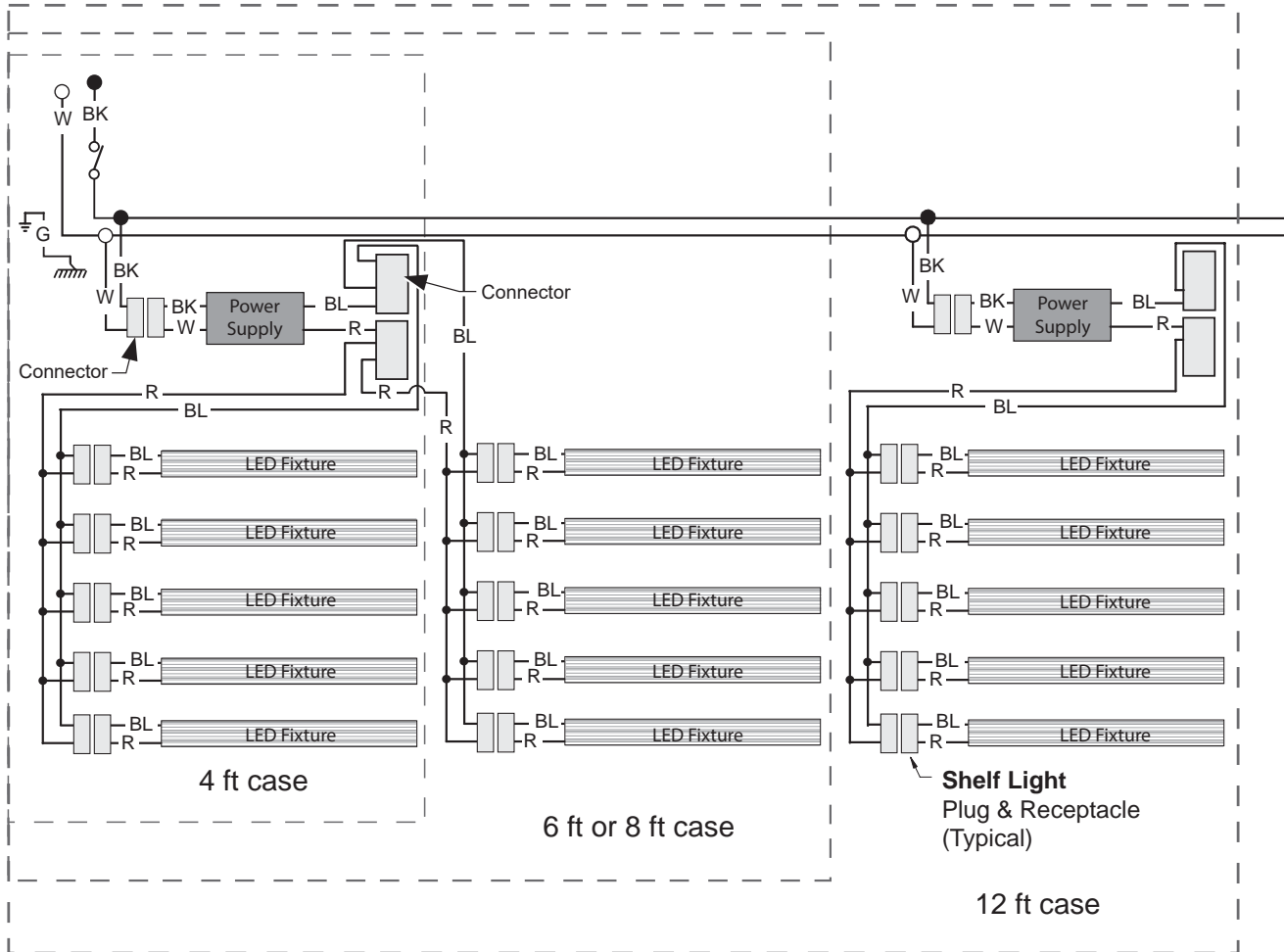


WARNING

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 ⏏ = CASE GROUND

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



WARNING

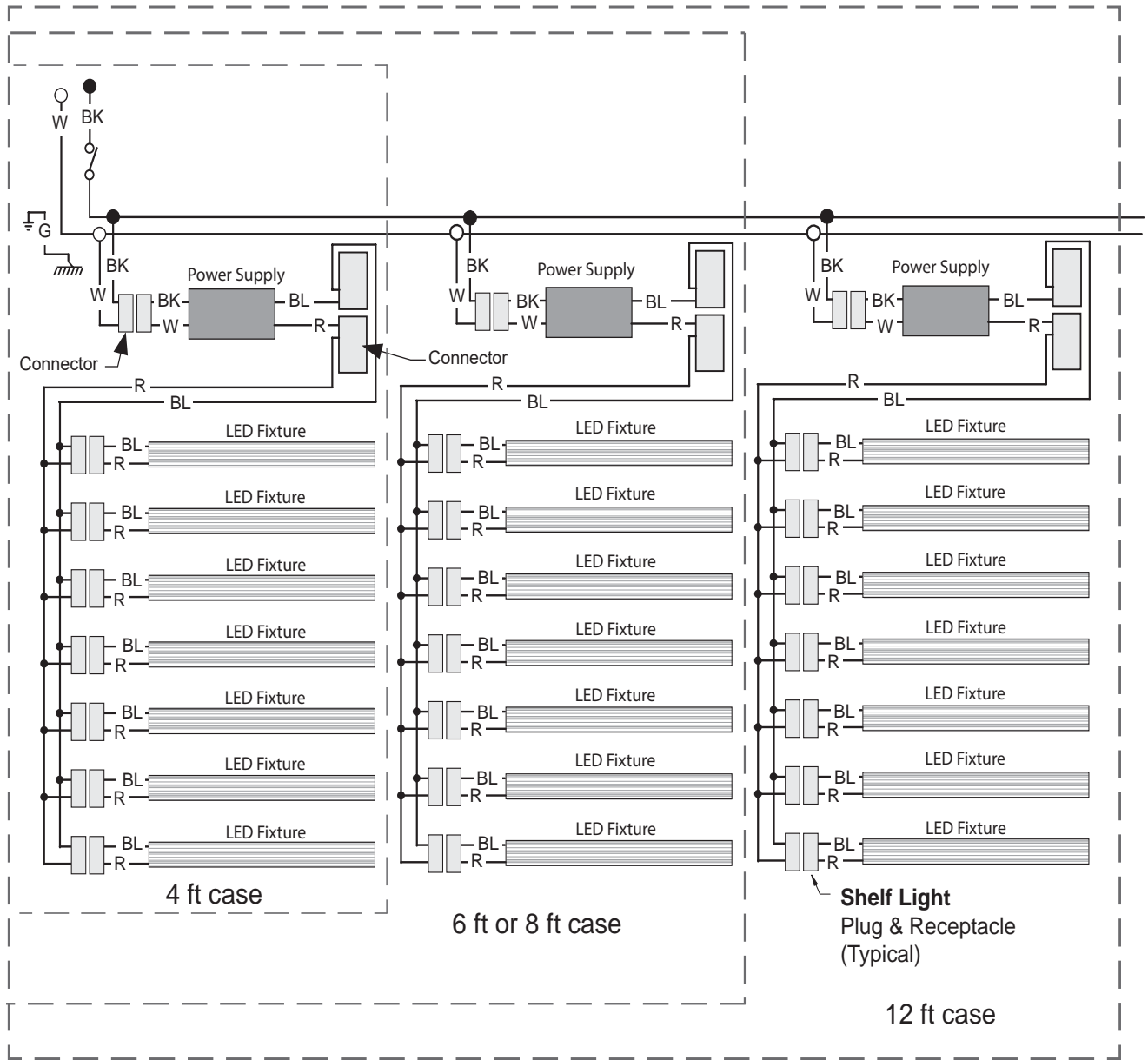
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Optional LED Shelf Lighting

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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.

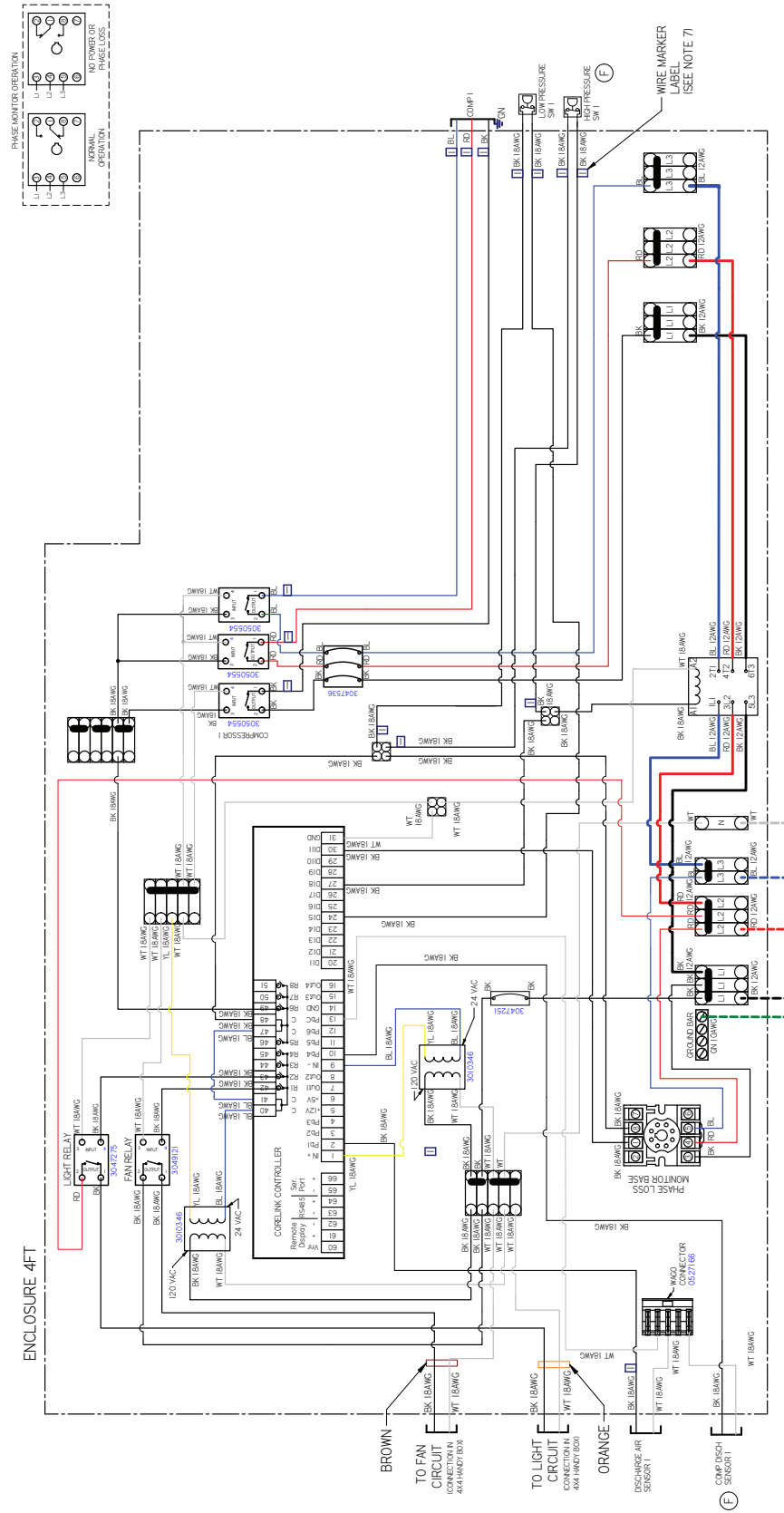
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CoreLink Propane

Wiring Diagram



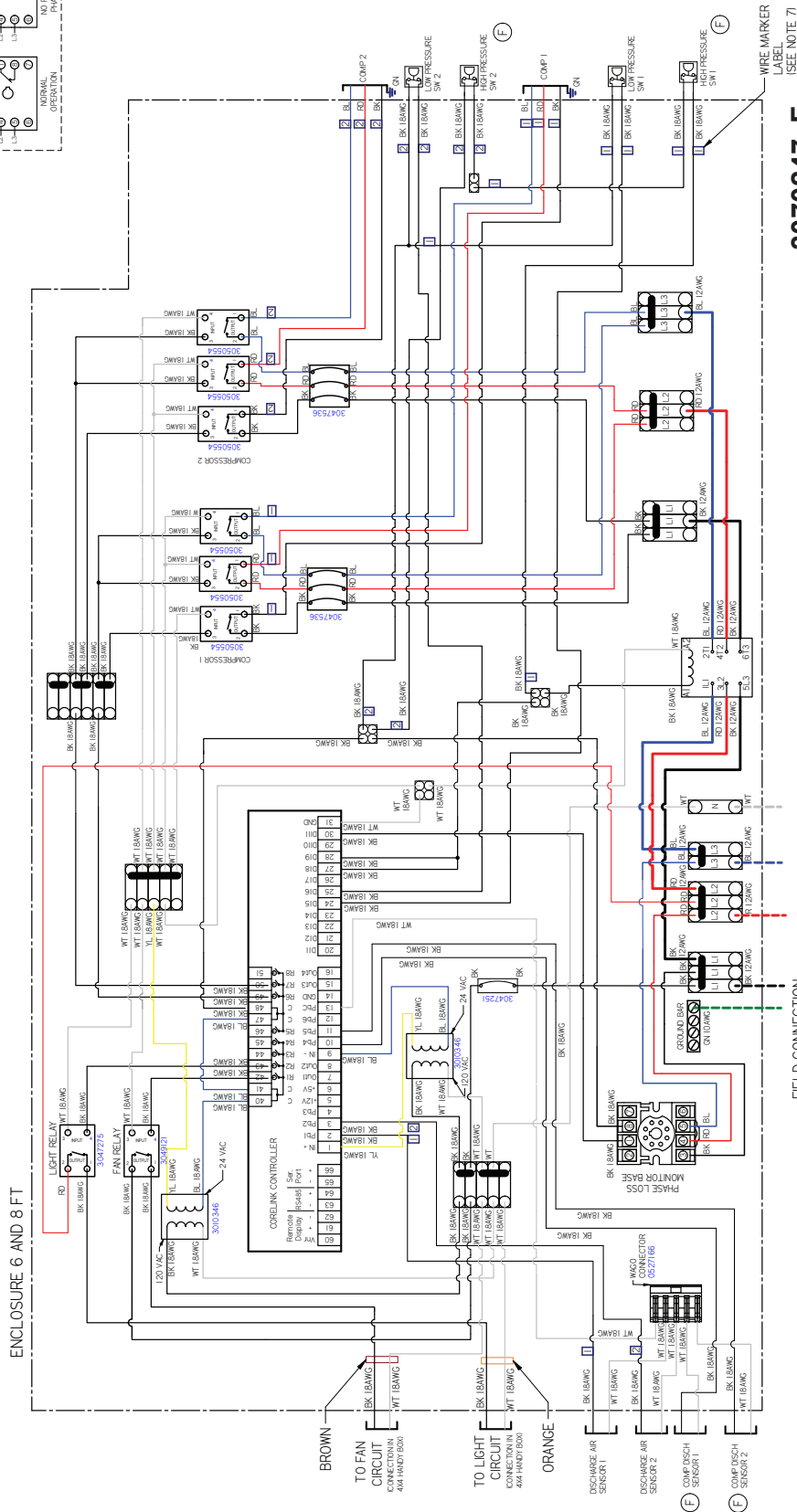
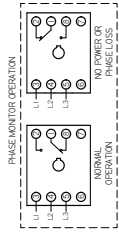
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- UL COLOR CODES / ABBREVIATIONS**
- RED = RD
 - BLACK = BK
 - BLUE = BL
 - YELLOW = YL
 - GRAY = GY
 - WHITE = WT
 - GREEN = GN
 - BROWN = BN
 - ORANGE = OR
 - VIOLET = VT
- FACTORY 14GA WIRE**
- FACTORY 12GA WIRE**
- FIELD WIRE**

- NOTES**
1. APPLICABLE STANDARDS / SPECIFICATIONS
 2. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
 3. FAN AND LIGHT CIRCUITS TO BE FACTORY MADE CONNECTIONS.
 4. ALL WIRE 14G UNLESS OTHERWISE NOTED.
 5. MATERIAL - N/A
 6. REF 3047407
 7. APPLY WIRE MARKER LABELS TO BOTH END OF SENSOR AND COMPRESSOR WIRES TO ROUTING WIRES.
 8. PRINTED DOCUMENT REQUIRED SETTING - ALL COLORS BLACK & WHITE.

CoreLink Propane Wiring Diagram

Insight ID5SM-W Dairy / Deli / Beverage / Produce / Meat

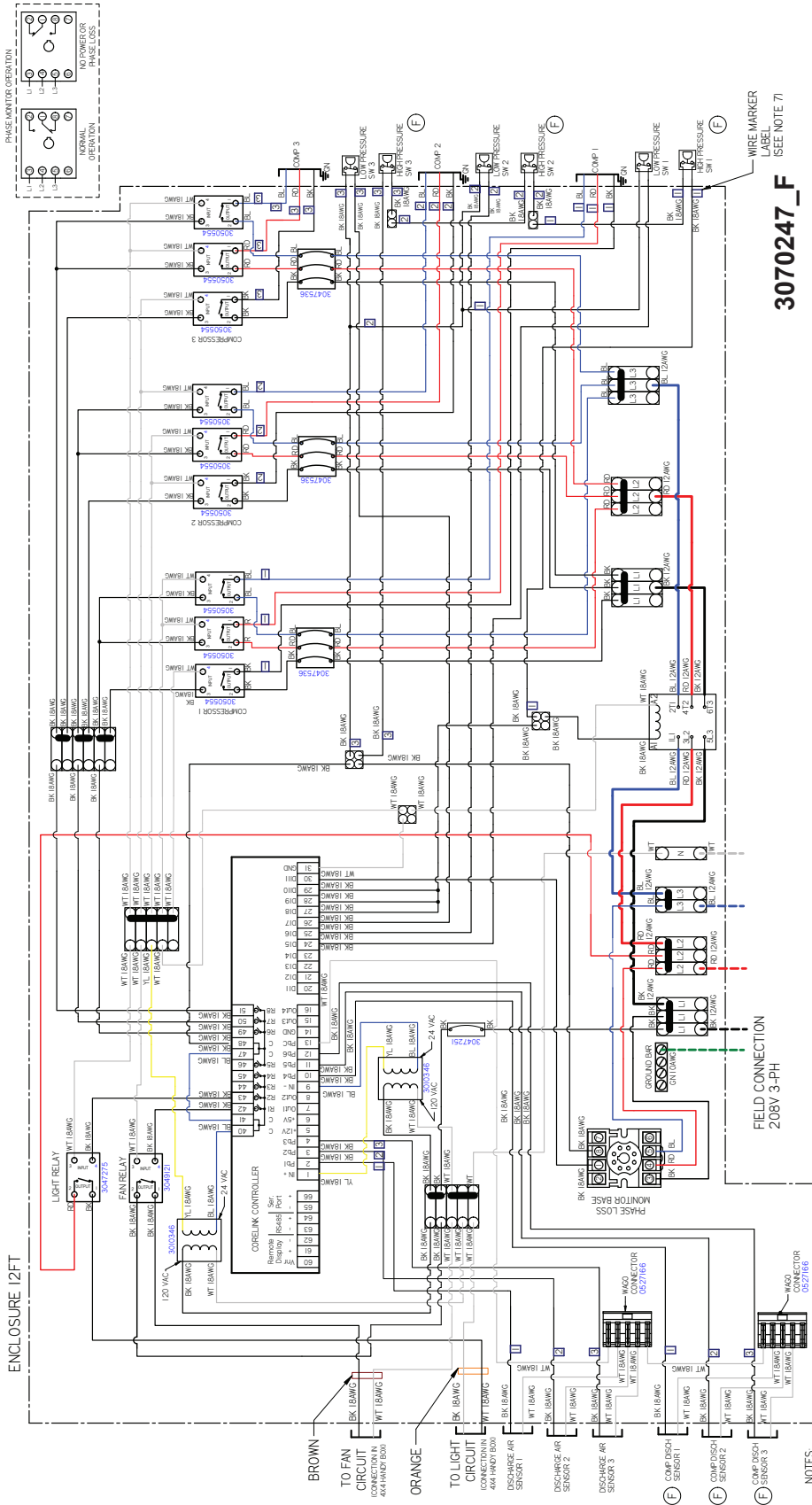


Insight ID5SM-W

Dairy / Deli / Beverage / Produce / Meat

CoreLink Propane

Wiring Diagram



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- UL COLOR CODES / ABBREVIATIONS**
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 - WHITE = WT
 - GREEN = GN
 - BROWN = BN
 - ORANGE = OR
 - VIOLET = VT
- FACTORY 14GA WIRE**
- FACTORY 12GA WIRE**
- FIELD WIRE**

- NOTES**
1. ALL WIRE GAUGES (SPECIFICATIONS AND USE) SHALL BE AS SHOWN.
 2. ALL WIRE GAUGES SHALL BE IDENTIFIED WITH SYMBOL.
 3. FAN AND LIGHT CIRCUITS TO BE FACTORY MADE CONNECTIONS.
 4. ALL WIRE 14G UNLESS OTHERWISE NOTED.
 5. MATERIAL - N/A
 6. REF 3047407
 7. APPLY WIRE MARKER LABELS TO BOTH END OF SENSOR AND COMPRESSOR WIRES TO ROUTING WIRES.
 8. 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.husmann.com

Call toll free: 1.855.487.7778

Revision History

Revision A: November 2018: Original Issue

Revision B: February 2019: Added MicroDS logo

Revision C: April 2019: Updated Refrigeration Data

Revision D: July 2019: Updated parts list, lighting, CaseShieldPTM, refrigeration data and wiring diagrams.

Revision E: August 2020: Updated electrical information and wiring diagrams.

Revision F: April 2022: Updated performance data, electrical data and wiring diagrams.