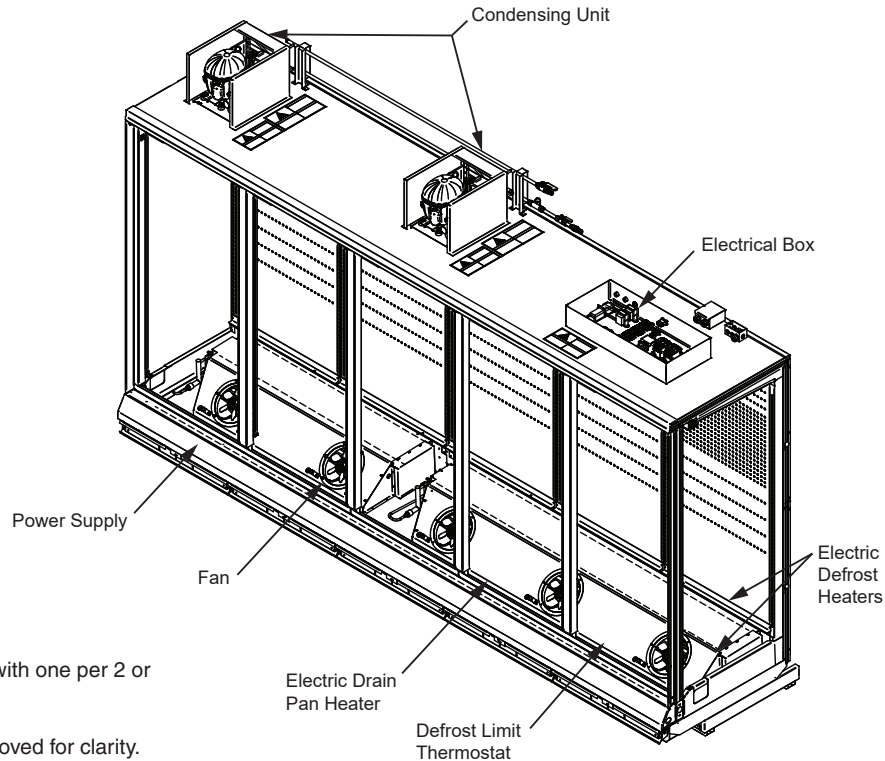


HUSSMANN®

microDS™

RLN-SP with
INNOVATOR Doors or
INNOVATOR III Doors
Self-Contained
R290 (Propane)
Merchandise Data Sheet
P/N 3036852_D
UL EPH® Certified
February 2019



*Coils are modular with one per 2 or 3 door section.

Portion of parts removed for clarity.

5 door merchandiser shown.

UL EPH Certification

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

**Standard electrical connections
 are at the top right of the merchandiser**

**DOE 2017
 Energy Efficiency
 Compliant**



Performance Data	Page 2	Estimated Shipping Weights	Page 8
Product Data (AHRI Statistics)	Page 2	Shelf Options	Page 8
Cross Section	Page 3	Replacement Parts List	Page 9
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Data sheet-RLN-SP

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.

RLN-SP

With INNOVATOR or INNOVATOR II Doors
Low Temperature

Refrigeration Data ¹

RLN-SP		Optimal Shelf Life	
Application		Frozen Food (FF)	Ice Cream (IC)
Temperature	Discharge Air °F (°C)	-3 (-19.4)	-12 (-24.4)
	Average Evaporator °F (°C)	-8 (-22.2)	-17 (-27.2)
Fan Speed	RLN-SP RPM	1550	1550

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. Water supply design conditions are 45+/-2°F.

Compressor Data

Total Heat of Rejection	BTU/Hr
2 Door	3,850
3 Door	5,770
4 Door	7,700
5 Door	9,620

Defrost Data

Frequency (hours between defrost) 24

	RLN-SP
Time (minutes)	45
Failsafe Temp Termination (°F)	48

ELECTRIC OR GAS Electric

Defrost Water ³ 1.2 lb/dr/day
(0.5 kg/m)

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

Glycol/Water Flow Rate ⁴

	RLN-SP	
	GPM	LPM
2 Door	1	3.8
3 Door	1.5	5.7
4 Door	2	7.6
5 Door	2.5	9.5

⁴ 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 ⁵

	RLN-SP		
2 Door	0.27 lb	4.4 oz	125 g
3 Door	0.33 lb	5.3 oz	150 g
4 Door (LH)	0.27 lb	4.4 oz	125 g
4 Door (RH)	0.27 lb	4.4 oz	125 g
5 Door (LH)	0.27 lb	4.4 oz	125 g
5 Door (RH)	0.33 lb	5.3 oz	150 g

⁵ Maximum charge per condensing unit = 150 g.

Product Data

Gross Refrigerated Volume ⁶ (Cu Ft/Ft)	22.80 ft ³ /dr (0.65 m ³ /m)
AHRI Total Display Area ⁷ (Sq Ft/Ft)	13.04 ft ² /dr (1.21 m ² /m)
Shelf Area ⁸ (Sq Ft/Ft)	28.50 ft ² /dr (2.65 m ² /m)

⁶ AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]

⁷ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

⁸ Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (5 per door) 22-inch shelves, evenly distributed vertically.

Reach-in Multideck Merchandiser, 6 Display Levels,
Low Bottom, Narrow Height Front

RLN-SP
With INNOVATOR or INNOVATOR II Doors
Low Temperature

DOE 2017
Energy Efficiency
Compliant

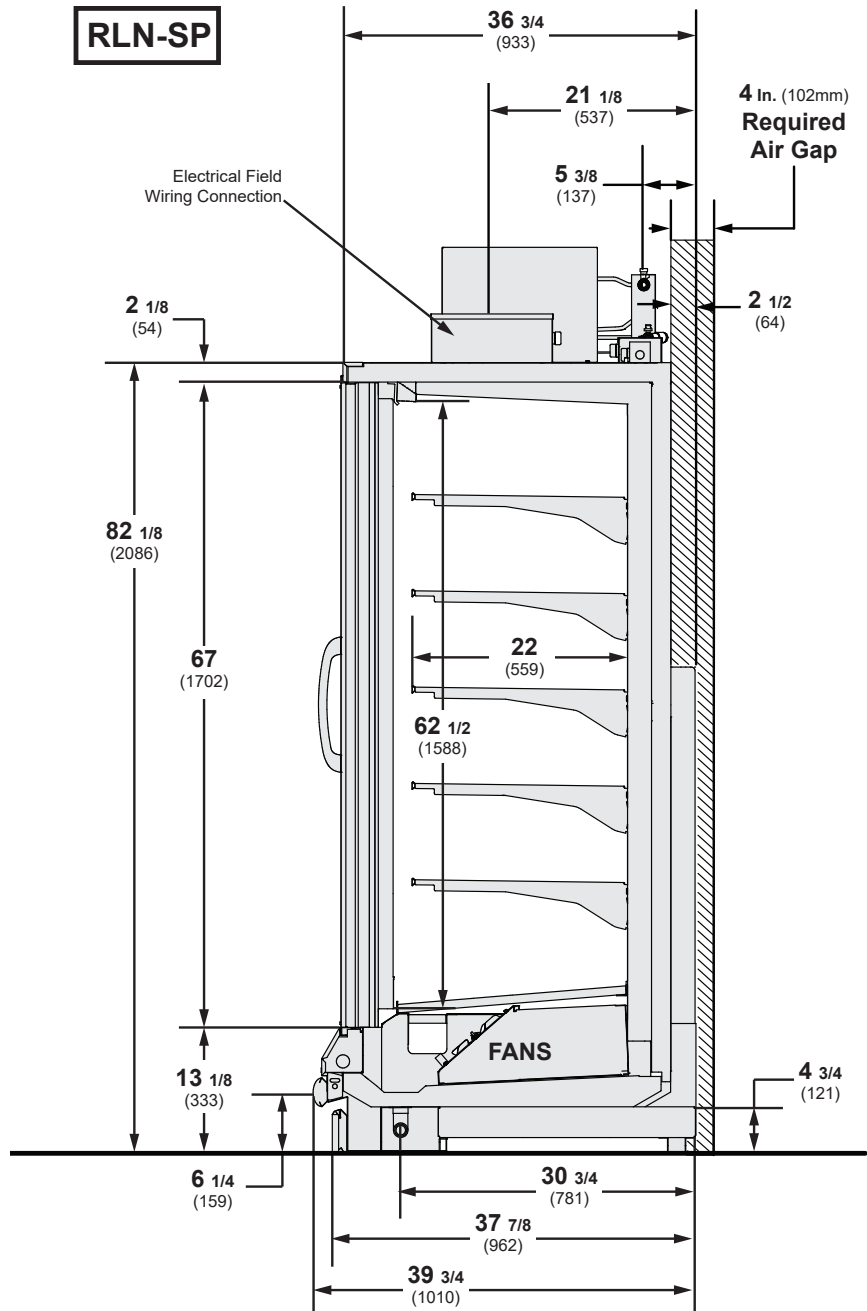
Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Dimensions shown as in. and (mm).

Shelf complement shown as tested:

Five rows of shelves per door (22-in) spaced equally between bottom display pan and interior top panel.

4-in. between back to back cases.



UL EPH Certification

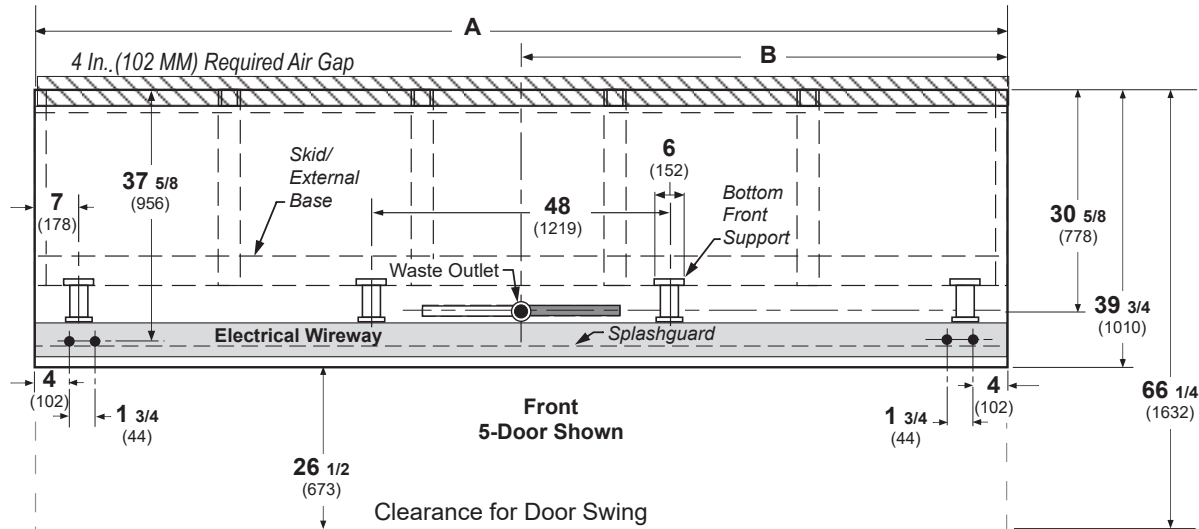
This merchandiser model is manufactured to meet ANSI/SCC Standards requirements for construction, materials, and cleanability.

Engineering Plan View

Top Views are shown on pages 7 and 8.

Dimensions shown as in. and (mm).

RLN-SP 2, 3, 4 & 5 Door



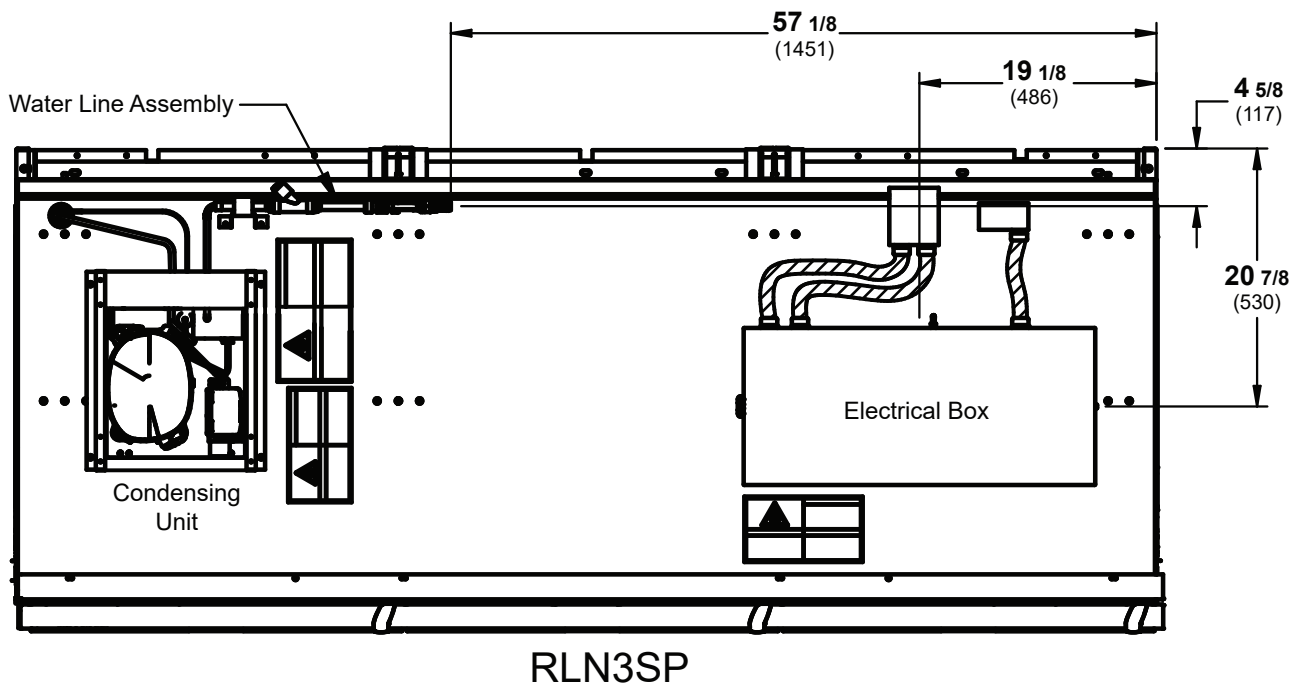
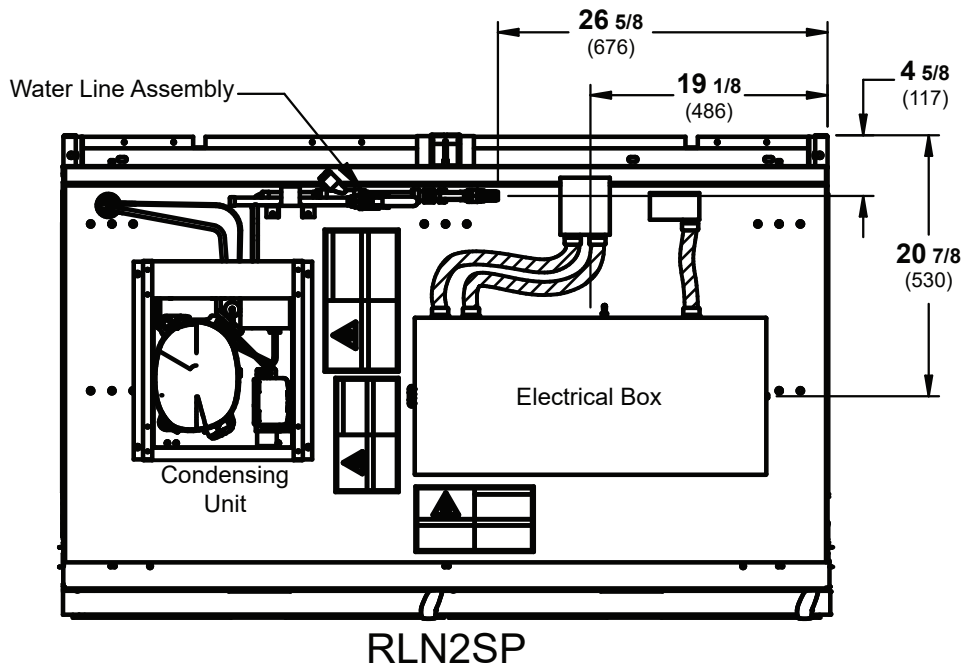
(5 Door Model shown above)

	2 Dr	3 Dr	4 Dr	5 Dr
General				
(A) Case Length (without ends or partitions) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)	62 (1575)	92 1/2 (2350)	122 7/8 (3121)	144 3/8 (3668)
Maximum O/S dimension of case back to front (includes bumper) (Add 26 1/2 in. (673 mm) for door swing.)	39 3/4 (1010)	39 3/4 (1010)	39 3/4 (1010)	39 3/4 (1010)
Back of case to rear of splashguard	35 3/4 (908)	35 3/4 (908)	35 3/4 (908)	35 3/4 (908)
Width of Skidrail	4 1/2 (114)	4 1/2 (114)	4 1/2 (114)	4 1/2 (114)
Width of bottom front support	6 (152)	6 (152)	6 (152)	6 (152)
Electrical Service (Field Electrical Wiring Connection)				
RH End of case to center of Electrical Wiring Connection (top of case)	13 3/4 (349)	13 3/4 (349)	13 3/4 (349)	13 3/4 (349)
Back O/S of case to center of Electrical Wiring Connection *NOTE: Electrical Wiring Connection point is at terminal.)	5 1/2 (140)	5 1/2 (140)	5 1/2 (140)	5 1/2 (140)
Waste Outlets (with required drain extension)				
(B) RH End of case to the center of waste outlet	23 3/4 (603)	54 1/4 (1378)	46 1/4 (1175)	76 5/8 (1946)
Back O/S of case to center of waste outlet(s)	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Water Seal				
Edge of water seal to center of waste outlet **NOTE: Field installed water seal outlets, tees, and connectors are shipped with case.	13 (330)	13 (330)	13 (330)	13 (330)

Engineering
Plan View

RLN-SP
With INNOVATOR or INNOVATOR II Doors
Low Temperature

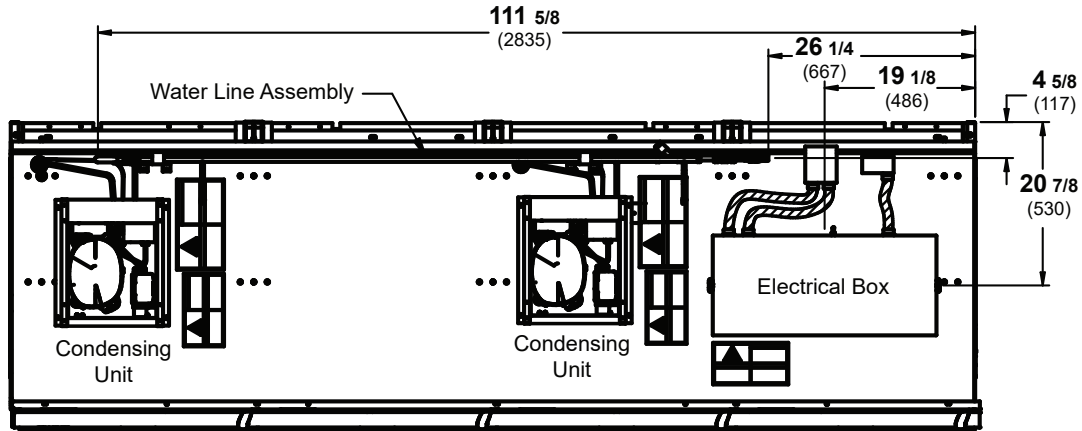
RLN-SP
Top Views



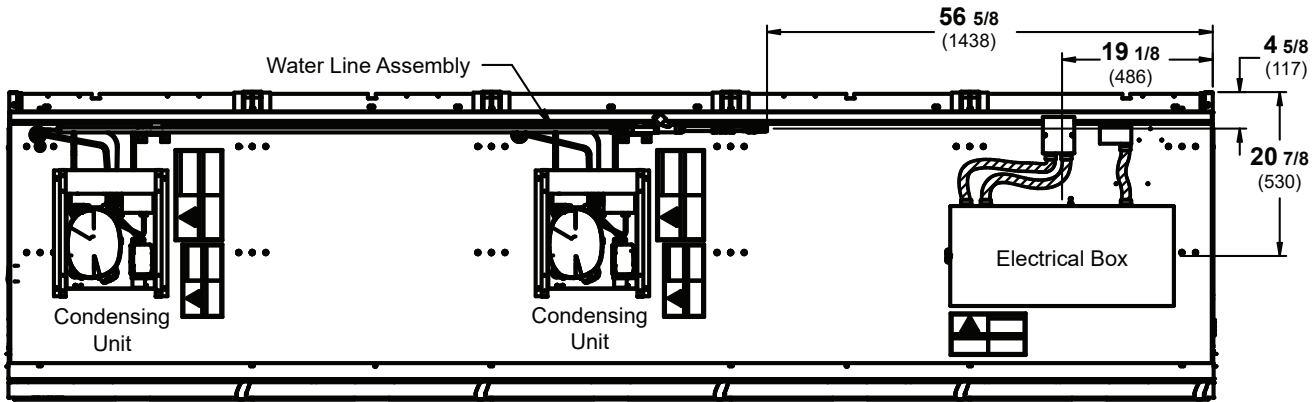
RLN-SP
 With INNOVATOR or INNOVATOR II Doors
 Low Temperature

**Engineering
 Plan View**

**RLN-SP
 Top Views**



RLN4SP



RLN5SP

Hussmann recommends against frame heater cycling with *Innovator* doors or *Innovator III* doors to prevent door seals from freezing to the frames and tearing.

RLN-SP
With INNOVATOR or INNOVATOR II Doors
Low Temperature

Electrical Data

Number of Fans			2 Dr	3 Dr	4 Dr	5 Dr				
8.25-in.			2	3	4	5				
			Amperes				Watts			
Energy Efficient Evaporator Fan			2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
120V	50/60Hz	Innovator	0.60	0.90	1.20	1.50	36	54	72	90
120V	50/60Hz	Innovator III	0.60	0.90	1.20	1.50	36	54	72	90
Door Anti-Sweat Heaters (on fan circuit)			2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
120V	50/60Hz	Innovator	1.50	2.30	3.00	3.80	182	273	364	455
120V	50/60Hz	Innovator III	0.90	1.30	1.70	2.20	104	156	208	260
Frame Anti-Sweat Heaters (on fan circuit)			2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
120V	50/60Hz	Innovator	0.78	1.18	1.57	1.97	94	141	188	236
120V	50/60Hz	Innovator III	0.78	1.18	1.57	1.97	94	141	188	236
Defrost			2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
120V	Drain Heaters		0.63	1.25	2.00	2.57	75	150	240	300
208V	Electric Defrost		6.72	10.08	13.46	16.82	1400	2100	2800	3500

Condensing Unit (208/230V, 3 ph, 60 Hz) Standard

NOTE: One compressor can start at a time.

Compressor RLA	3.5	3.5	7.0	7.0
Compressor LRA	25.5/unit	25.5/unit	25/unit	25/unit

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

Total Amps	9.0	13.5	18.0	22.4
MCA	11.3	16.9	22.5	28.1
Maximum Over Current Protection	20	20	30	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

EcoShine II	2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
120V	0.36	0.54	0.72	0.90	43	65	86	108
220V Export	0.20	0.29	0.39	0.49	43	65	86	108

OPTIONAL LIGHTING

GE Illumination	2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
120V	0.30	0.45	0.60	0.75	36	54	72	90
220V Export	0.16	0.25	0.33	0.41	36	54	72	90

RLN-SP

With INNOVATOR or INNOVATOR II Doors
Low Temperature

ENDS or PARTITIONS

Each standard end, each insulated partition, view end adds 2 ³/₈ in. (60 mm) to case line up.

PHYSICAL DATA

Merchandiser Drip Pipe (in.) 1 ¹/₄
Schedule 40 PVC

ESTIMATED SHIPPING WEIGHT †

Case	2 Dr	3 Dr	4 Dr	5 Dr	Solid End (each)
lb (kg)	949 (430)	1176 (533)	1611 (731)	1963 (890)	55 (25)

† Actual weights will vary according to optional kits included.

**NOTE: Case joint add approximately ¹/₈ to length of lineup for gasket material.

Shelf Options

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

20-inch, 22-inch

Contact engineering for non-standard display recommendations.

Optimal number of Shelves: 5 per door

Maximum number of Shelves: 5 per door

Standard shelf complement for test purposes: (5 per door) 22-inch shelves, evenly distributed vertically

Replacement Parts List

Part #	Description	Part #	Description
FAN ASSEMBLIES		HONEYCOMB - CLEAR	
2, 3, 4 & 5 Dr		0495287	(1) 2 Dr, (2) 4 Dr
Standard HE Fan Assembly		0495261	(1) 3 Dr
0529672	8.25-in. Fan Assembly	0495262	(2) 5 Dr
0527610	Fan Motor, Evaporator		
0461805	Fan Blade		
LED FIXTURES AND POWER SUPPLY		RELAYS	
0499399	Power Supply	3047276	Defrost Relay (208V) (2 & 3 Dr)
	LED Canopy Fixture	3047277	Defrost Relay (4 & 5 Dr)
	<i>Replace with like fixtures.</i>	3049121	Fans Relay (4 & 5 Dr)
	LED Shelf Fixture	3047275	Anti-sweat / LED Relay
	<i>Replace with like fixtures.</i>		
HEATERS		CORELINK CONTROL	
Electric Defrost Front or Rear (208V)		5054376	CoreLink Controller
3020841	(2) 2 & 5 Dr, (4) 4 Dr	3017903	Expansion Board
3020842	(2) 3 & 5 Dr	3013759	Discharge Air Sensor, (1) 2 & 3 Dr, (2) 4 & 5 Dr
		3013760	Defrost Sensor Harness, (1) 2 & 3 Dr, (2) 4 & 5 Dr
		0005226	Compressor Discharge Sensor, (1) 2 & 3 Dr, (2) 4 & 5 Dr
Drain Pan Heater Electric (120V)		OTHER	
0387036	(1) 2 Dr	3047251	(1) Case Circuit Breaker
0387037	(1) 3 Dr	0528933	Condensing Unit (1) 2 & 3 Dr, (2) 4 & 5 Dr
0389038	(1) 4 Dr	0528947	Capillary Tube (0.064 ID x 142 in. long) (1) 2 & 3 Dr, (2) 4 & 5 Dr
0387039	(1) 5 Dr		

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](http://www.hussmann.com/en/products/led-lighting/pages/default.aspx).

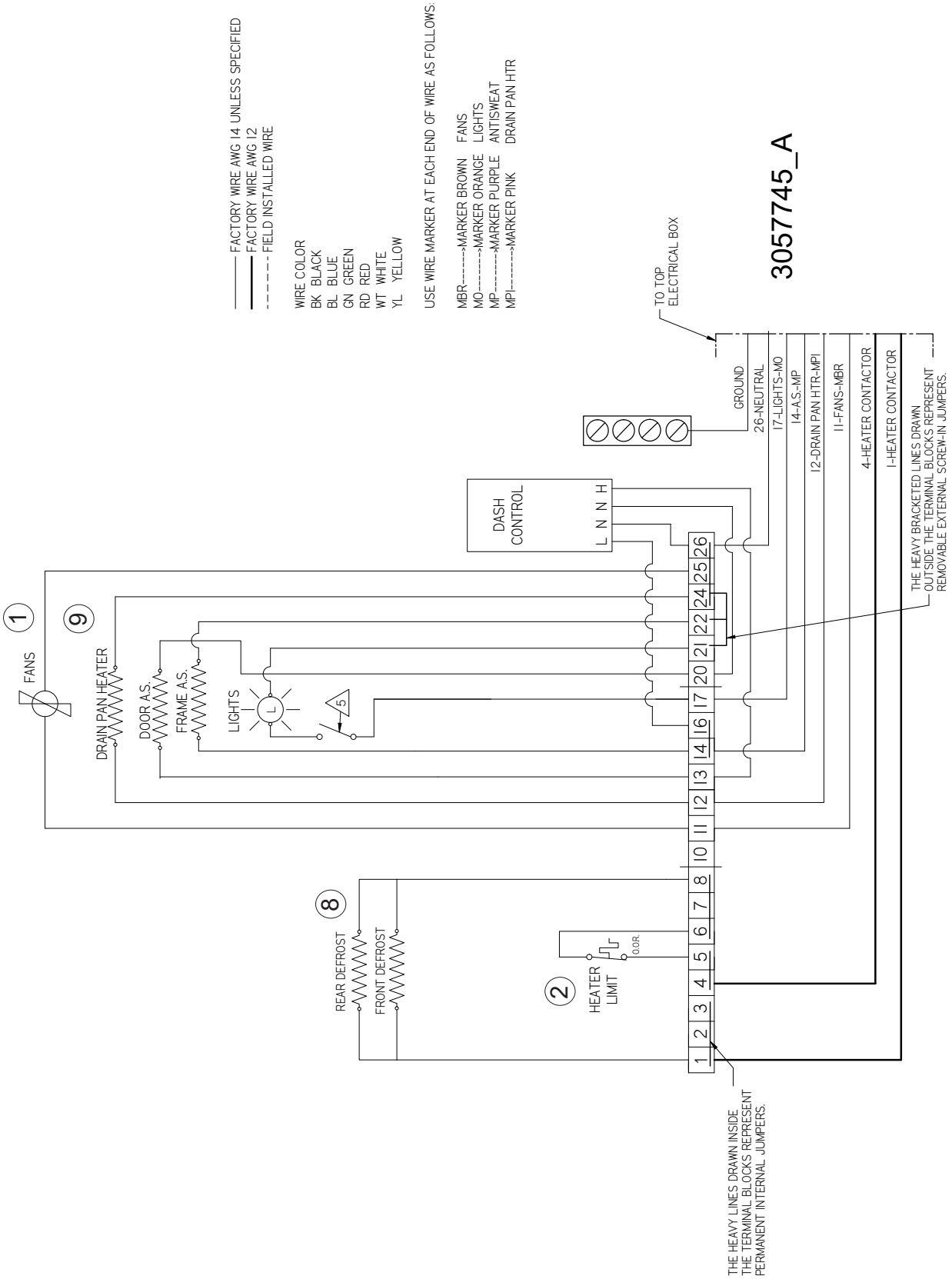
Refer to INNOVATOR REACH-IN GLASS DOOR INSTALLATION AND SERVICE manual, P/N 0425683, for Innovator, Innovator II, or Innovator III door and frame replacement parts.

FOR ADDITIONAL PARTS INFORMATION, VISIT [HTTP://WWW.HUSSMANN.COM/EN/PAGES/AFTERMARKET-PARTS.ASPX](http://www.hussmann.com/en/pages/aftermarket-parts.aspx)

RLN-SP

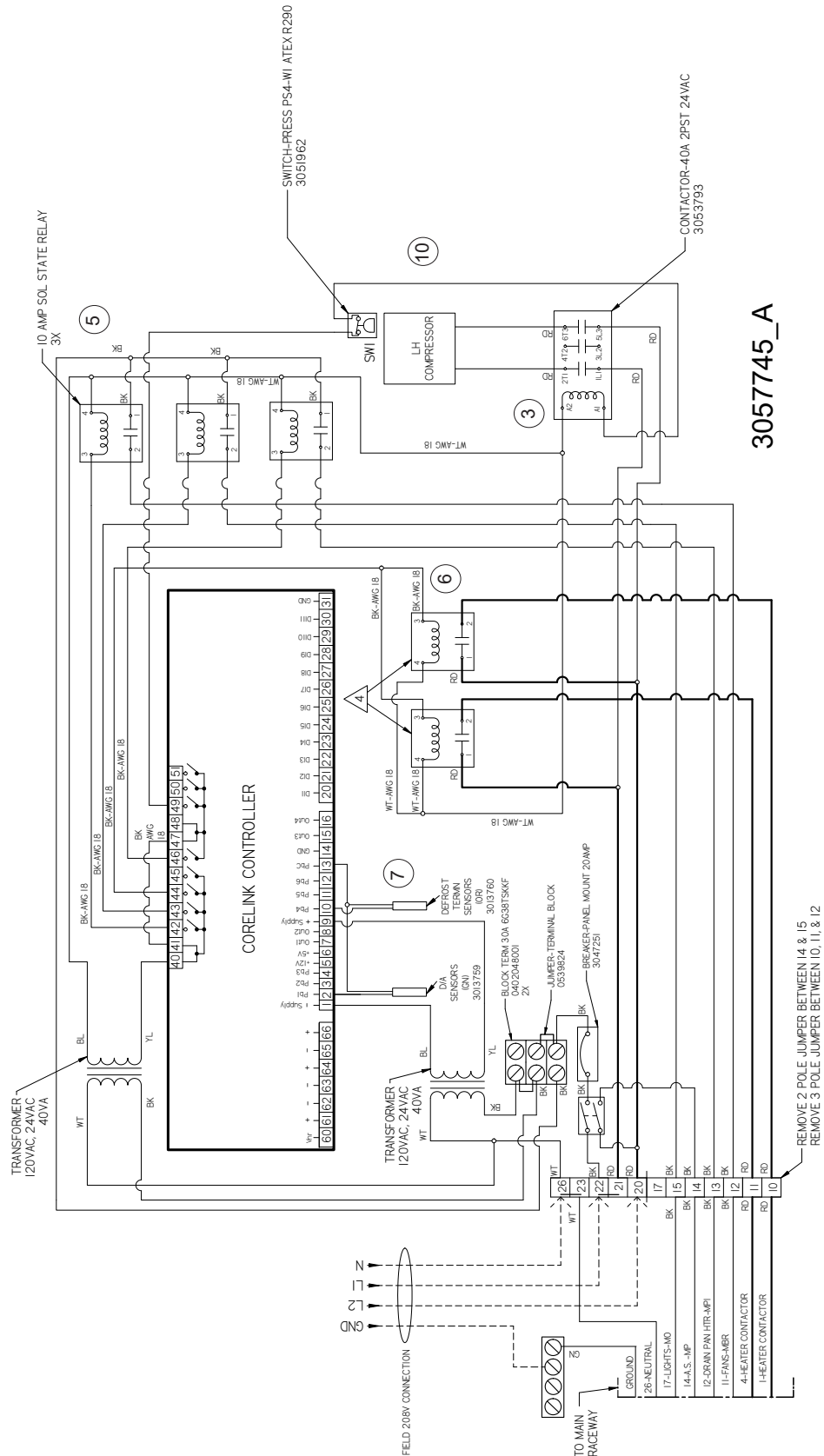
With INNOVATOR or INNOVATOR II Doors
Low Temperature

2-3 Door Wiring Diagram



2-3 Door Corelink Wiring Diagram

RLN-SP
With INNOVATOR or INNOVATOR II Doors
Low Temperature

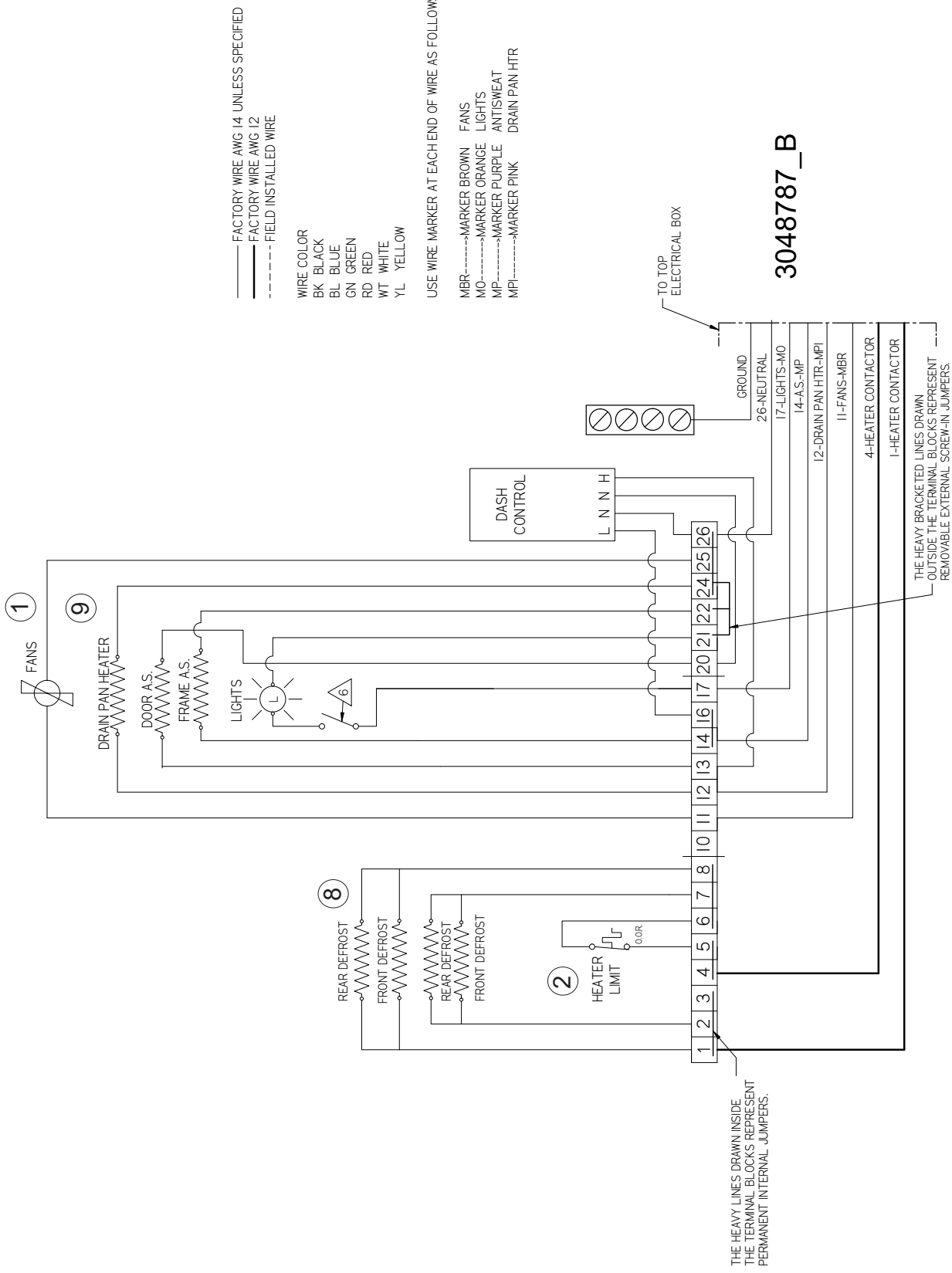


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RLN-SP

With INNOVATOR or INNOVATOR II Doors
Low Temperature

4-5 Door Wiring Diagram



— FACTORY WIRE AWG 14 UNLESS SPECIFIED
 - - - FACTORY WIRE AWG 12
 - - - - - FIELD INSTALLED WIRE

WIRE COLOR
 BK BLACK
 BL BLUE
 GN GREEN
 RD RED
 WT WHITE
 YL YELLOW

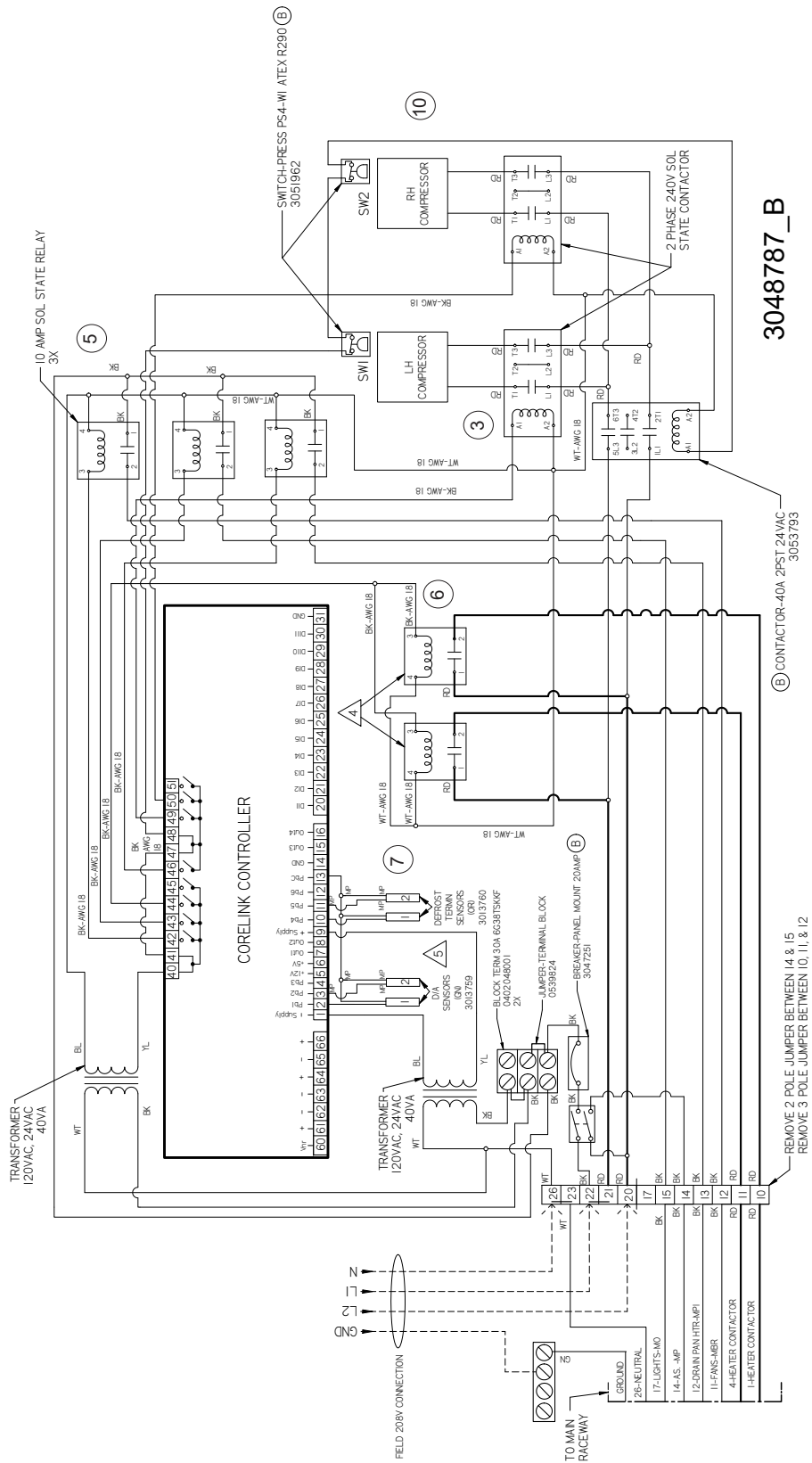
USE WIRE MARKER AT EACH END OF WIRE AS FOLLOWS:

MBR----->MARKER BROWN FANS
 MO----->MARKER ORANGE LIGHTS
 MP----->MARKER PURPLE ANTISWEAT
 MPI----->MARKER PINK DRAIN PAN HTR

3048787_B

4-5 Door Corelink Wiring Diagram

RLN-SP
With INNOVATOR or INNOVATOR II Doors
Low Temperature



RLN-SP

With INNOVATOR or INNOVATOR II Doors
Low Temperature



Scan QR code to
access product
information on your
mobile device.

Revision History

Revision A: January 2018: Original Issue

Revision B: May 2018: New format

Revision C: June 2018: Updated shipping weight

Revision D: February 2019: Added MicroDS logo