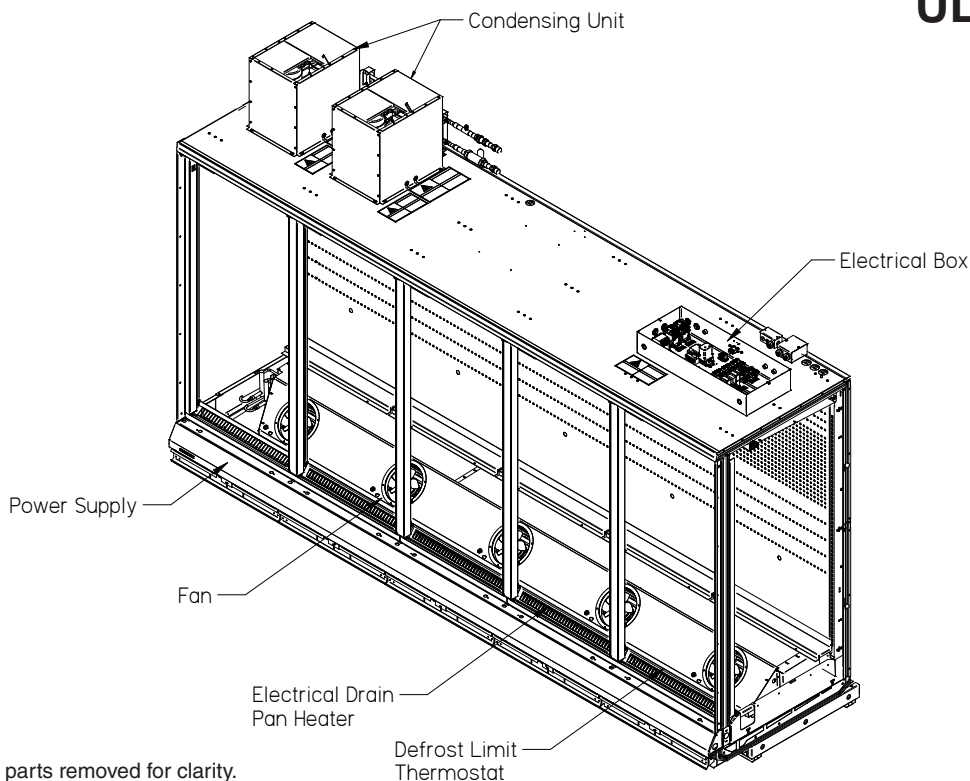


HUSSMANN® microDS™

RLN-SP with
INNOVATOR Doors or
INNOVATOR III Doors
Self-Contained
R-290 (Propane)
Merchandise Data Sheet
P/N 3036852_F
UL EPH® Certified
January 2021



Portion of parts removed for clarity.

5 door merchandiser shown.

DOE 2017
Energy Efficiency
Compliant



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**

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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 III 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)

Notes:

- 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.
- Water supply design conditions are 50-80°F.

Compressor Data

Total Heat of Rejection	BTU/Hr
2 Door	4,442
3 Door	5,527
4 Door	8,885
5 Door	9,970

Cooling Water Pressure Drop

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

	PSI
2 Door	2.5
3 Door	2.5
4 Door	2.5
5 Door	3.5

Glycol/Water Flow Rate ⁴

	GPM	LPM
2 Door	1.5	5.7
3 Door	2	7.6
4 Door	2.5	9.5
5 Door	3	11.4

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).

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).

Charge ⁵

2 Door	0.27 lb	4.4 oz	125 g
3 Door	0.33 lb	5.3 oz	150 g
4 Door ⁶	0.27 lb	4.4 oz	125 g
5 Door ⁶	0.33 lb	5.3 oz	150 g

⁵ Maximum charge per condensing unit = 150 g.

⁶ 2 condensing units per case

Product Data

Gross Refrigerated Volume ⁷ (Cu Ft/Dr)	22.80 ft ³ /dr (0.65 m ³ /m)
AHRI Total Display Area ⁸ (Sq Ft/Dr)	13.04 ft ² /dr (1.21 m ² /m)
Shelf Area ⁹ (Sq Ft/Dr)	28.50 ft ² /dr (2.65 m ² /m)

⁷ AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft³/dr [m³/m]

⁸ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

⁹ 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 III Doors
Low Temperature

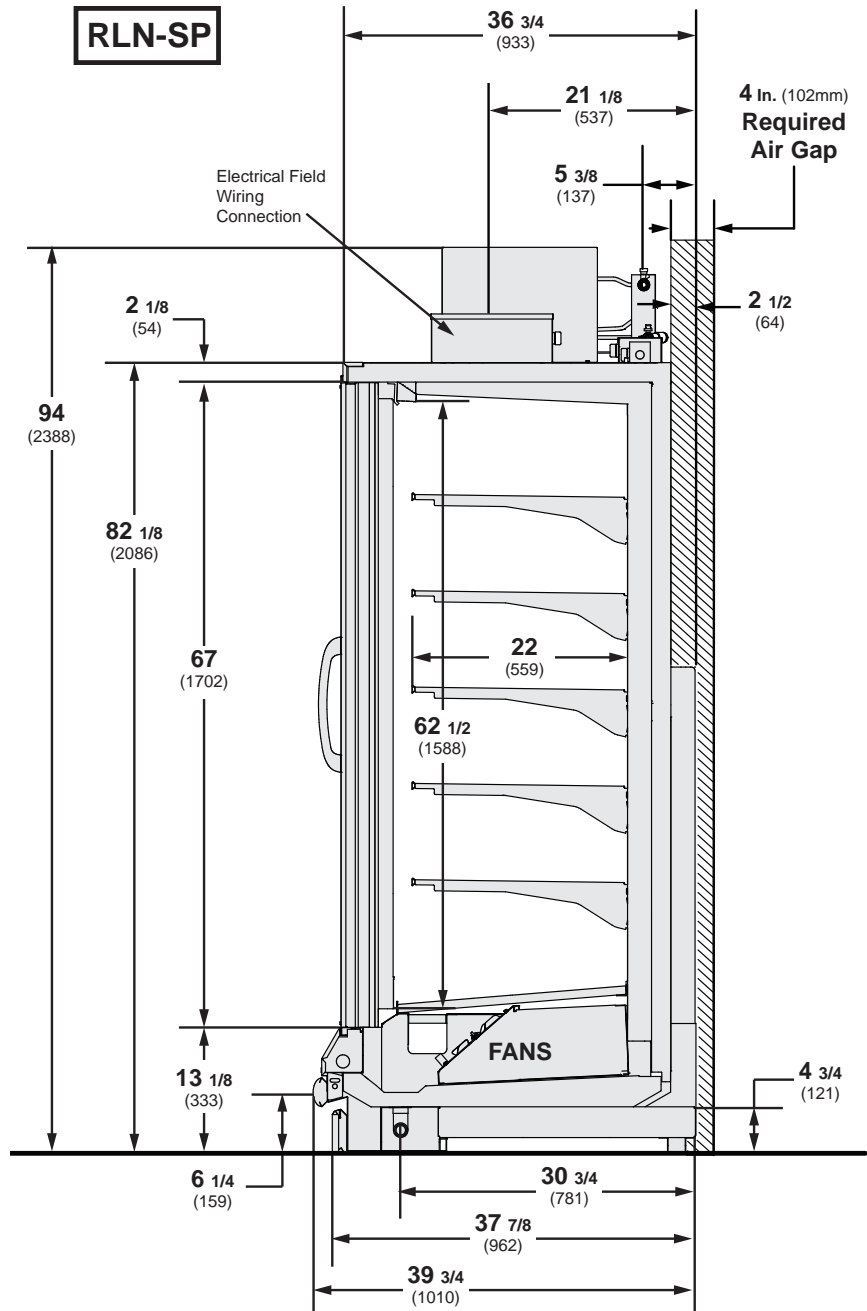
DOE 2017
Energy Efficiency
Compliant

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

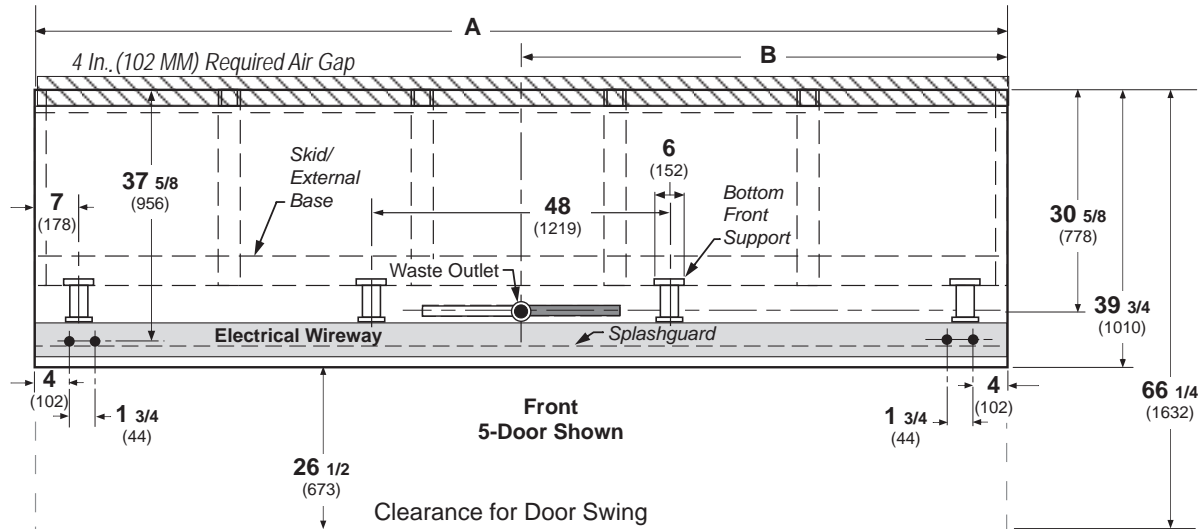
This merchandiser model is manufactured to meet ANSI/SCC Standards requirements for construction, materials, and cleanability.

Engineering Plan View

Top Views are shown on pages 7 and 8.

RLN-SP
2, 3, 4 & 5 Door

Dimensions shown as in. and (mm).



(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)

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

Condensing Unit (208/230V, 1 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, 1 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	2 Dr				3 Dr				4 Dr				5 Dr			
120V	0.36				0.54				0.72				0.90			
220V Export	0.20				0.29				0.39				0.49			
	43				65				86				108			
	43				65				86				108			

OPTIONAL LIGHTING

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

RLN-SP

With INNOVATOR or INNOVATOR III 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.

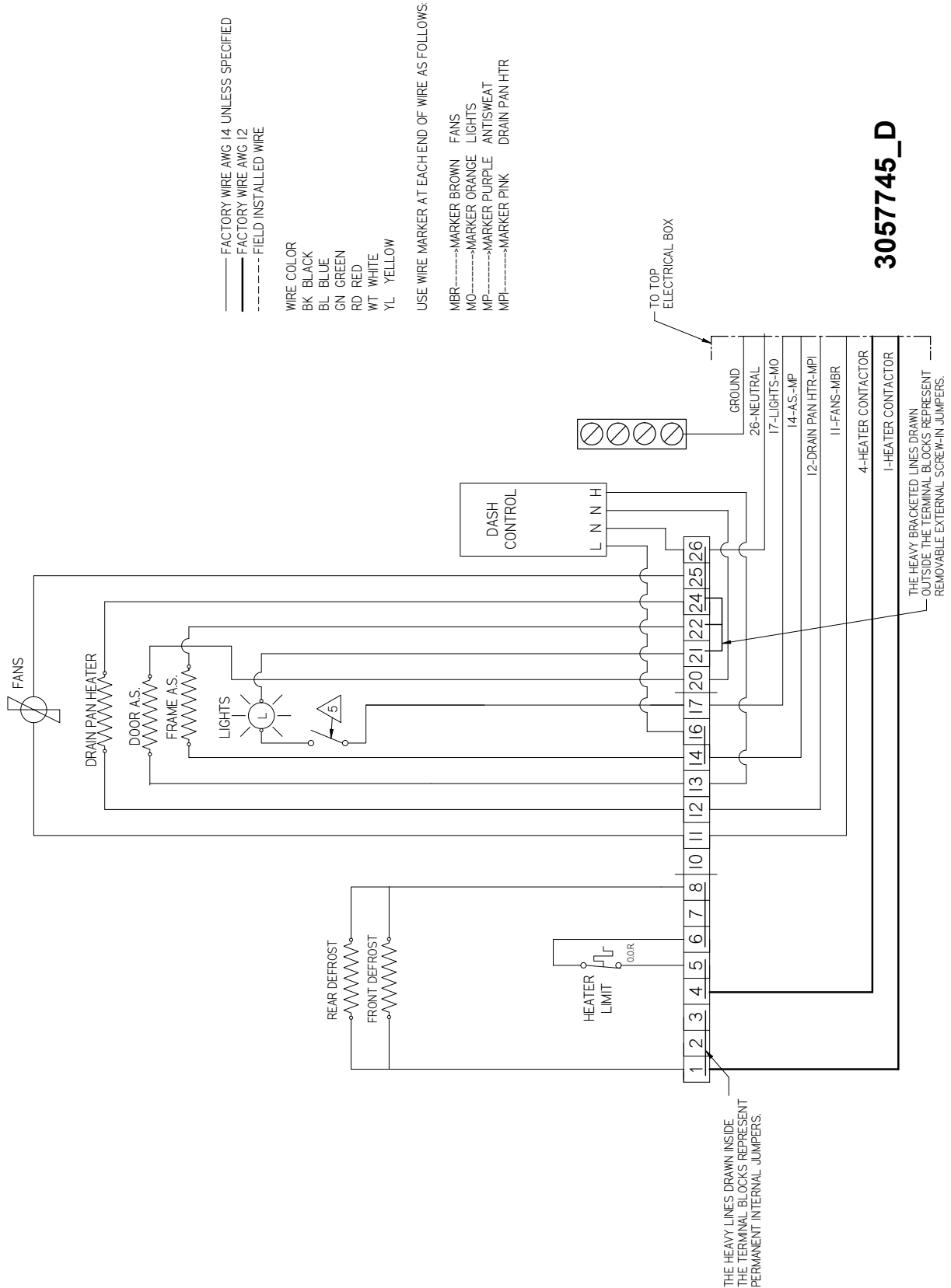
Optimal number of Shelves: 5 per door

Maximum number of Shelves: 5 per door

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

2-3 Door Wiring Diagram

RLN-SP With INNOVATOR or INNOVATOR III Doors Low Temperature

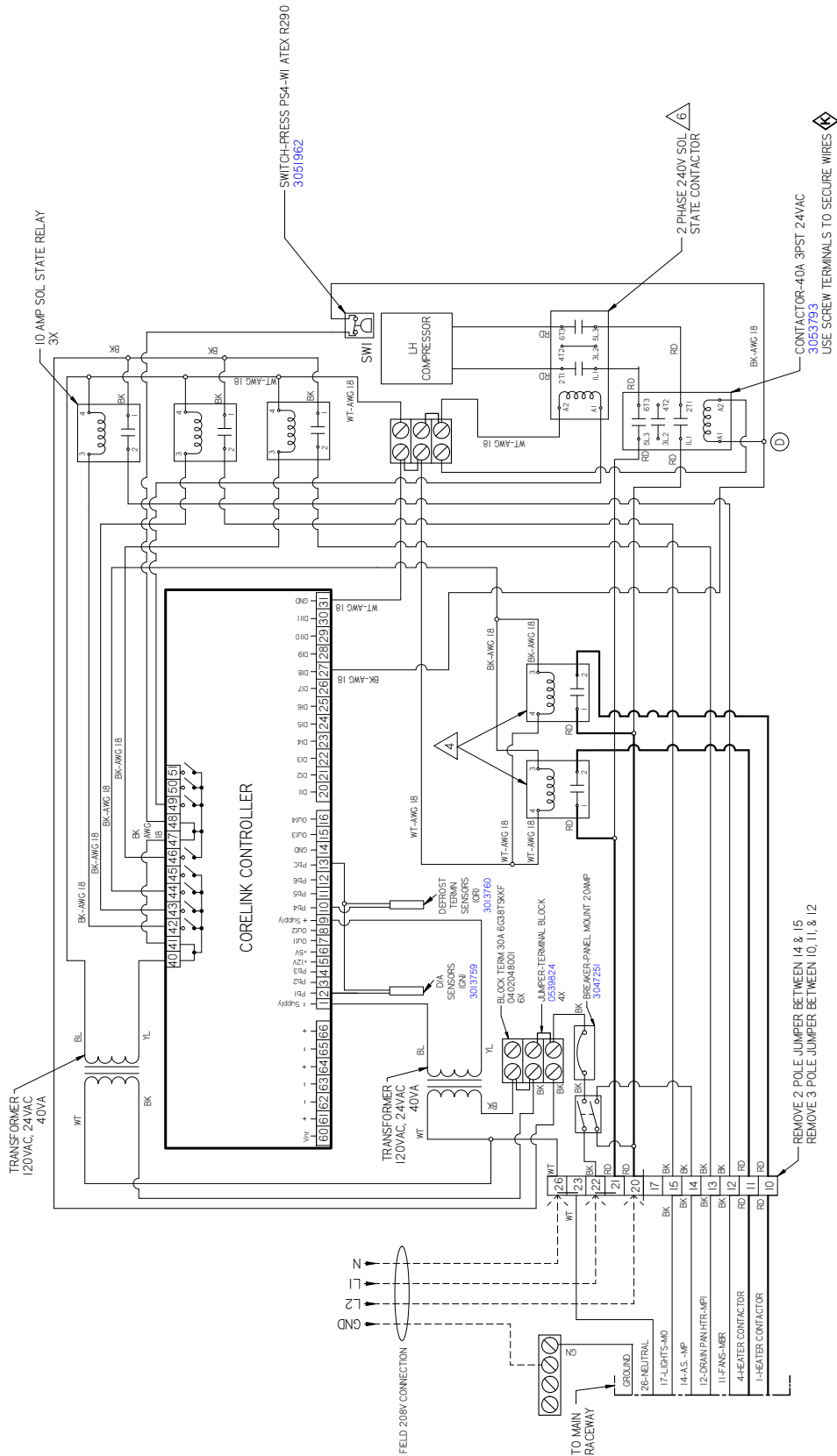


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RLN-SP

With INNOVATOR or INNOVATOR III Doors
Low Temperature

2-3 Door Corelink Wiring Diagram



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4-5 Door Wiring Diagram

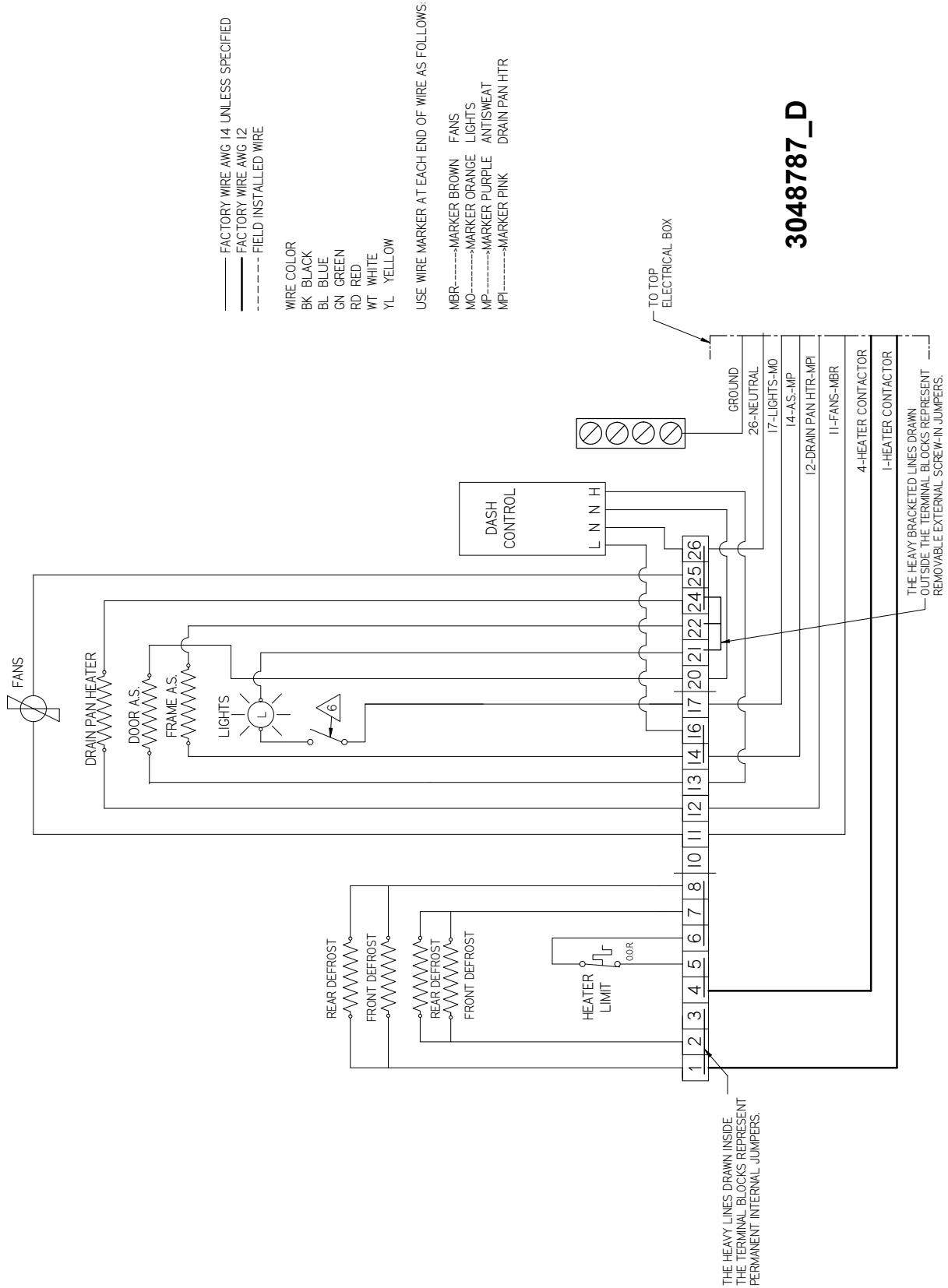
RLN-SP With INNOVATOR or INNOVATOR III Doors Low Temperature

_____ 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

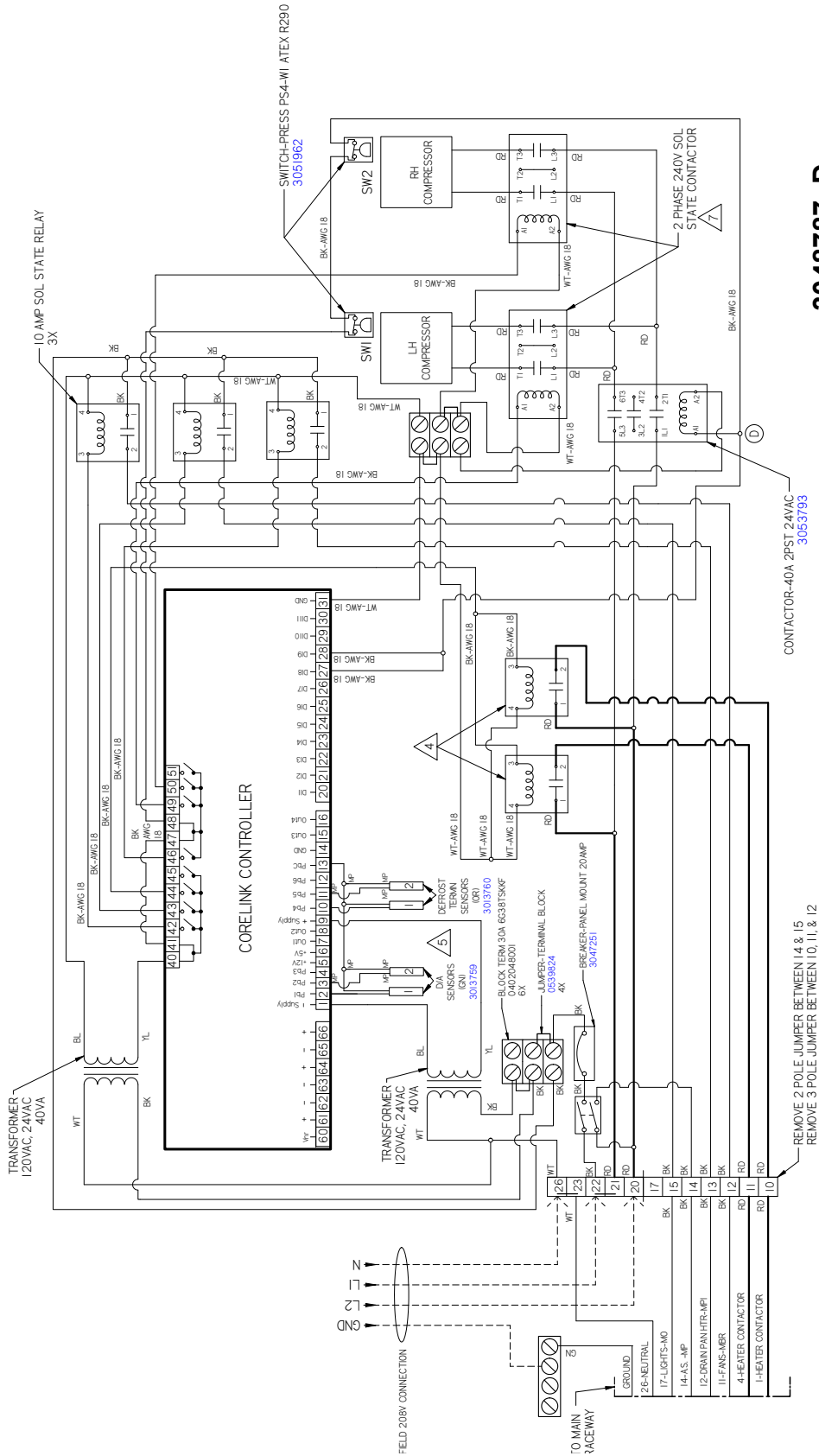


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RLN-SP

With INNOVATOR or INNOVATOR III Doors
Low Temperature

4-5 Door Corelink Wiring Diagram

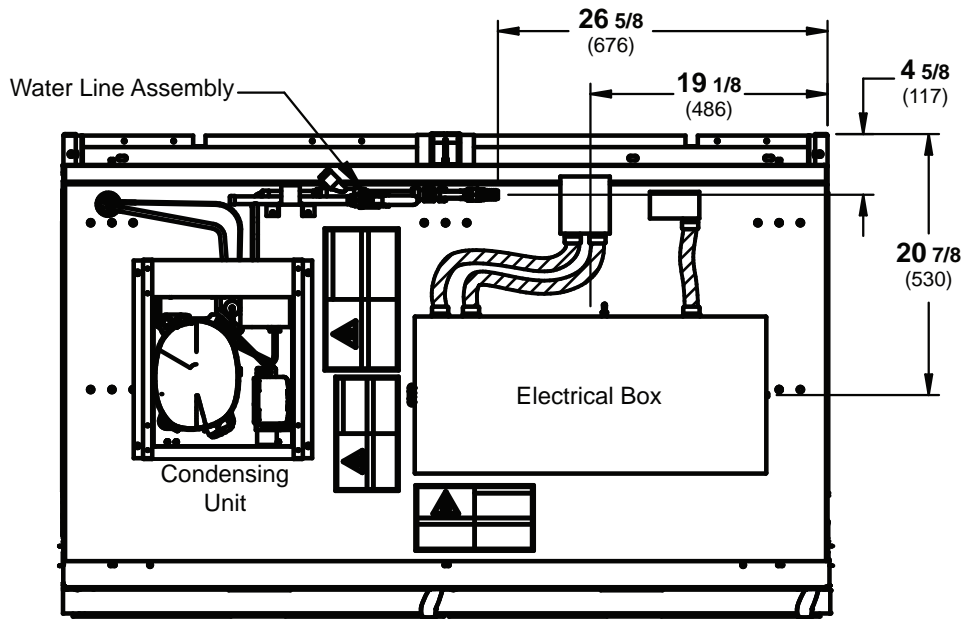


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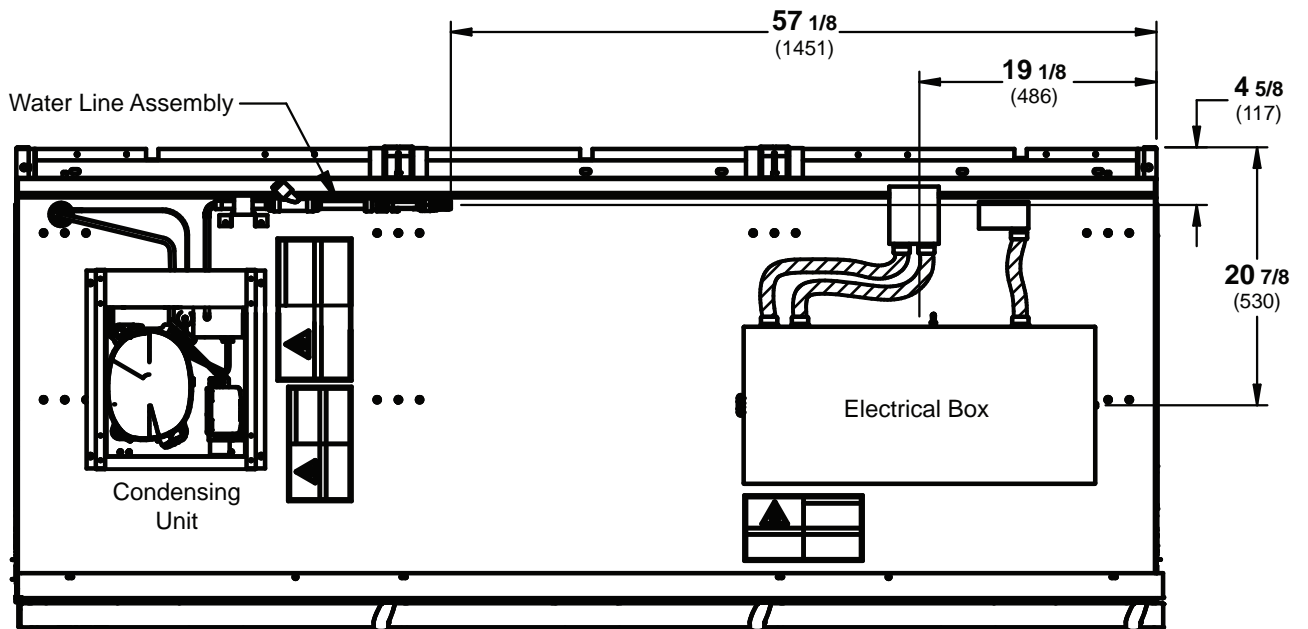
Engineering
Plan View

RLN-SP
With INNOVATOR or INNOVATOR III Doors
Low Temperature

RLN-SP
Top Views



RLN2SP Top View

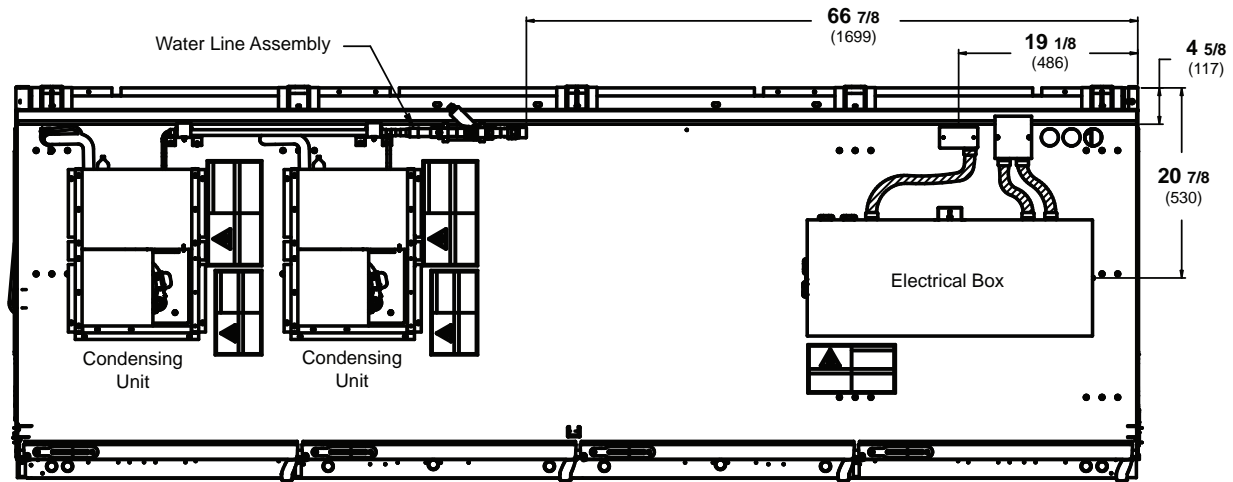


RLN3SP Top View

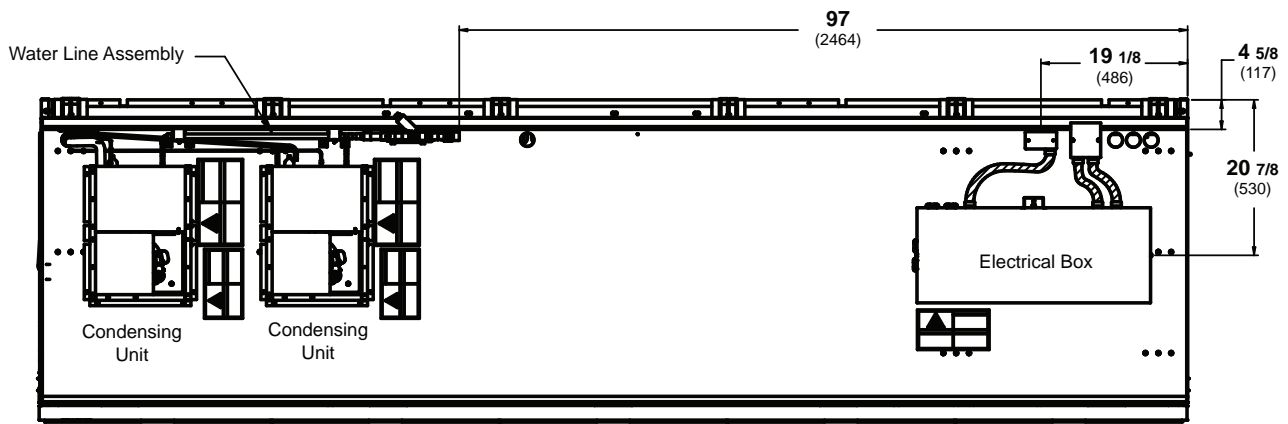
RLN-SP
 With INNOVATOR or INNOVATOR III Doors
 Low Temperature

**Engineering
 Plan View**

**RLN-SP
 Top Views**



RLN4SP Top View



RLN5SP Top View



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: January 2018: Original Issue

Revision B: May 2018: New format

Revision C: June 2018: Updated shipping weight

Revision D: February 2019: Added MicroDS logo

Revision E: December 2020: Updated performance data, drawings and wiring diagrams; remove replacement parts page.

Revision F: January 2021: Updated cross section.