

HUSSMANN®

microDS™

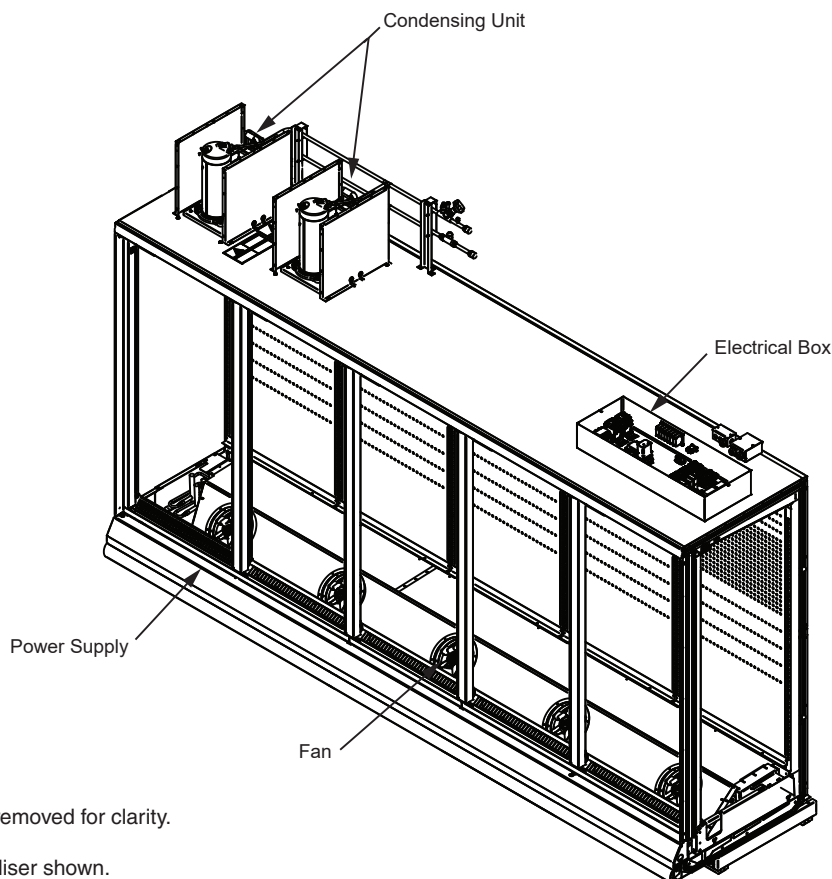
RLN-W
with INNOVATOR Doors
or INNOVATOR III Doors
Water-cooled
Self-Contained
R-290

Merchandise Data Sheet

P/N 3081716_D

UL EPH® Certified

April 2022



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.

⚠ WARNING

Component parts shall be replaced with like components, and servicing shall be done by factory authorized service personnel only, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

Performance Data
Product Data (AHRI Statistics)
Cross Section
Plan View
Electrical Loads
Estimated Shipping Weights

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Data sheet-Reach-in-RLN-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.

RLN-W

Frozen Food / Ice Cream

Refrigeration Data ¹

RLN-W		Optimal Shelf Life	
Application		Frozen Food (FF)	Ice Cream (IC)
Temperature	Discharge Air °F (°C)	-3 (-19.5)	-10 (-23)

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 50 to 115°F (10 to 40°C).

Compressor Data

Total Heat of Rejection	BTU/Hr
2 Dr	5,742
3 Dr	7,848
4 Dr	11,484
5 Dr	12,534

Defrost Data

Frequency (hours between defrost)	24
	RLN-W
Time (minutes)	45
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).

RLN-W

Cooling Water Pressure Drop ⁴

	PSI
2 Dr	4
3 Dr	4
4 Dr	5
5 Dr	5

Cooling Water Design TD 10°F

⁴ Auto-Balancing Valve requires a minimum of 2 PSI to operate. Subtract 2 PSI if the Auto-Balancing Valve is not supplied.

RLN-W

Glycol/Water Flow Rate ⁵

	GPM	LPM
2 Dr	1.5	5.7
3 Dr	2.0	7.6
4 Dr	2.5	9.5
5 Dr	3.0	11.4

Charge per unit ⁶

2 Dr	0.33 lb	5.3 oz	150 g
3 Dr	0.33 lb	5.3 oz	150 g
4 Dr	0.33 lb	5.3 oz	150 g
5 Dr	0.33 lb	5.3 oz	150 g

⁵ 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).

⁶ Maximum R290 charge per condensing unit = 150 g.

⁶ Charge per unit per coil section.

Water Connections Size

A ¾" female NPT fitting is required to connect to the ¾" male NPT fitting that is provided on top of the case for inlet and outlet water connections. Optional hose kits are available that include two 6' hoses with ¾" female NPSM fittings. Maximum working pressure of water side components: 100 psig

Product Data

Gross Refrigerated Volume ⁷ (Cu Ft/Dr)	31.17 ft ³ /dr (0.88 m ³ /dr)
AHRI Total Display Area ⁸ (Sq Ft/Dr)	13.04 ft ² /dr (1.21 m ² /dr)
Shelf Area ⁹ (Sq Ft/Dr)	28.50 ft ² /dr (2.65 m ² /dr)

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

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

⁹ Shelf surface area is composed of bottom deck plus standard shelf complement for this model: (5) 22-inch shelves, evenly distributed vertically.

Self-Contained R290 Propane Reach-in Merchandiser,
2, 3, 4 & 5 Door Models, 6 Display Levels,
Water-cooled, Self-Contained R-290

RLN-W
Frozen Food / Ice Cream

DOE 2017
Energy Efficiency
Compliant

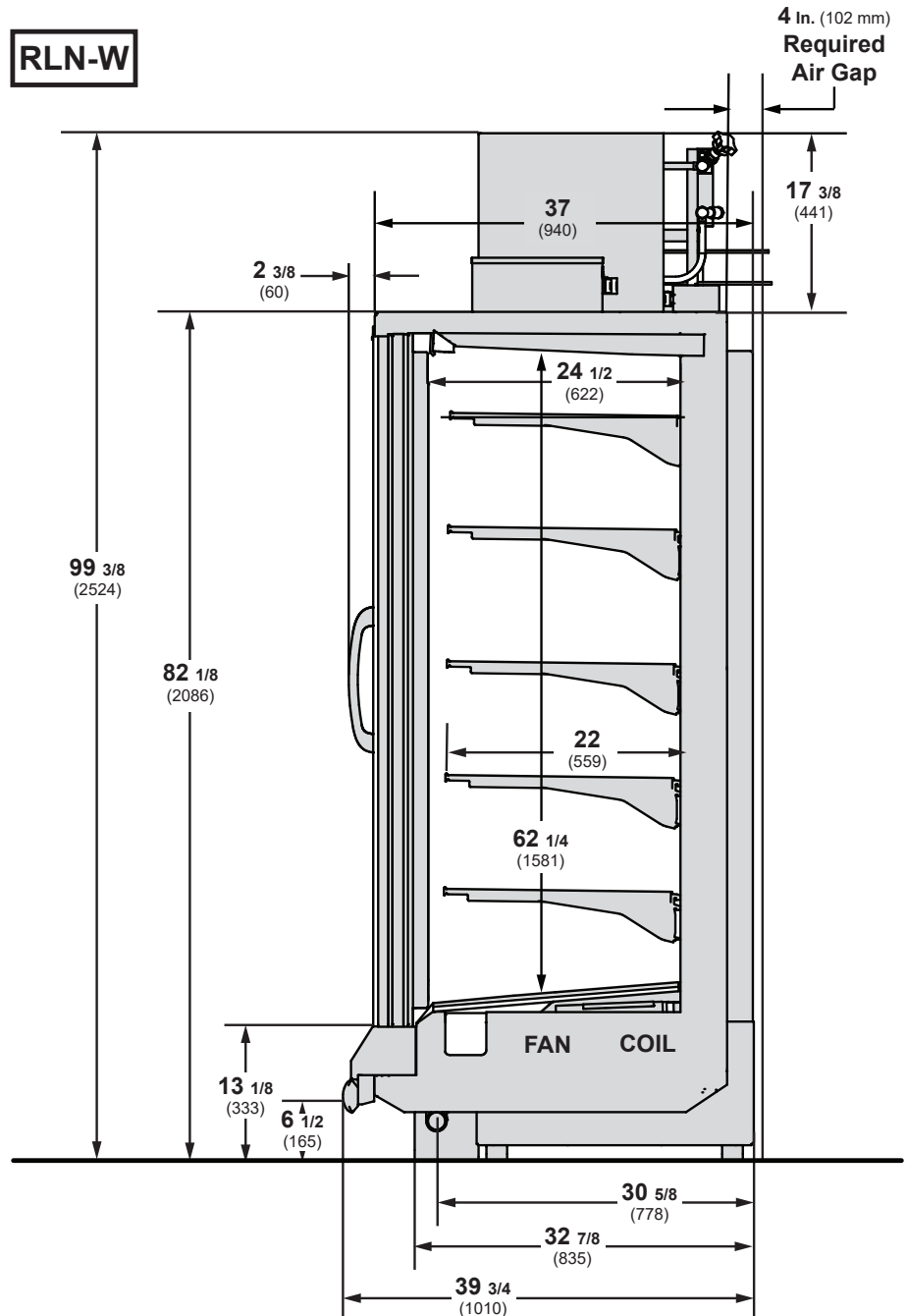
Husmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

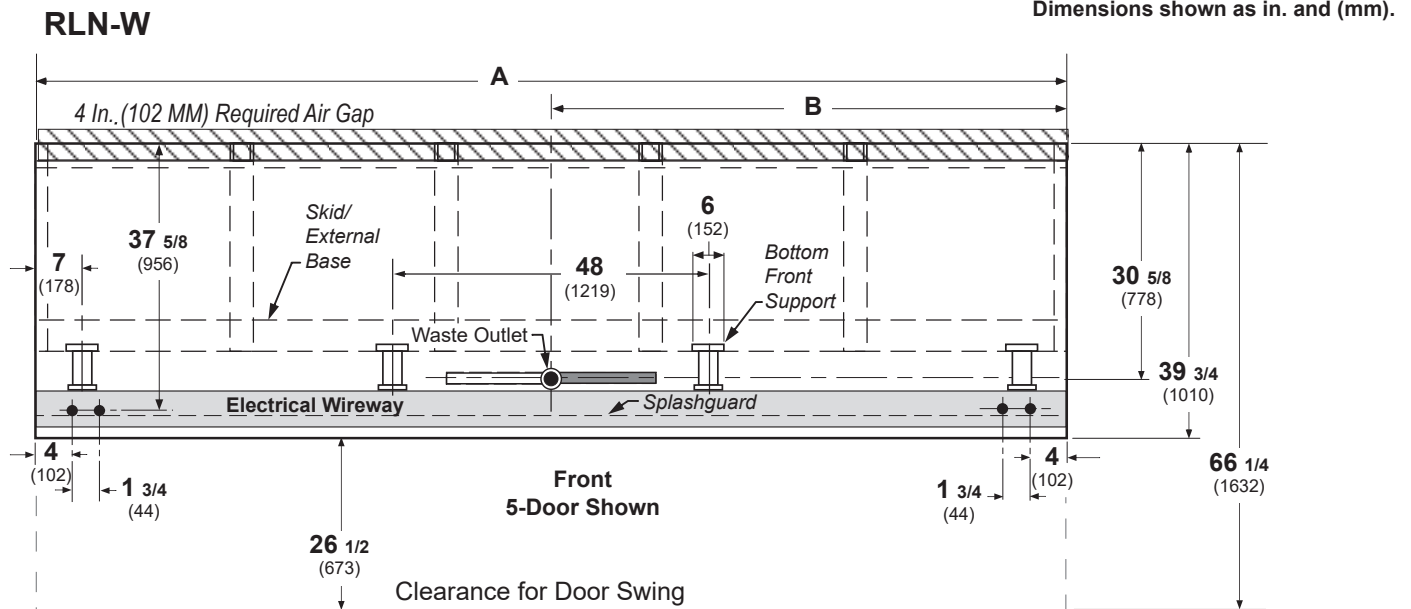
Shelf complement shown as tested:

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

Dimensions shown as in. and (mm).

4-in. between back to back cases.





(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 2 in. (51 mm) to case line up; each window end or insulated partition adds 1 1/2 in. (38 mm).	62 (1575)	92 1/2 (2350)	122 7/8 (3121)	153 3/8 (3896)
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	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)
Width of Bottom Front Support	6 (152)	6 (152)	6 (152)	6 (152)
Stub-up area between front support and splashguard	3 1/8 (79)	3 1/8 (79)	3 1/8 (79)	3 1/8 (79)
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 outside of case to center of Electrical Wiring Connection	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 7/8 (606)	54 1/4 (1378)	46 1/4 (1175)	76 5/8 (1946)
Back O/S of case to center of waste outlet	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	13 (330)	13 (330)	13 (330)	13 (330)
**NOTE: Field installed water seal outlets, tees, and connectors are shipped with the case.				

Electrical Data

Number of Fans 8.25-in.	2 dr 2	3 dr 3	4 dr 4	5 dr 5				
					Amperes		Watts	
Evaporator Fan 120V 50/60Hz	2 dr 0.60	3 dr 0.90	4 dr 1.20	5 dr 1.50	2 dr 36	3 dr 54	4 dr 72	5 dr 90
Door Anti-sweat Heaters (on fan circuit) 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) 120V 50/60Hz	0.78	1.18	1.57	1.97	94	141	188	236
Condensing Unit (208V, 3 ph, 60 Hz) Standard								
NOTE: One compressor can start at a time.								
Compressor RLA	6.3	7.0	11.2	11.9				
Compressor LRA	58/unit	58/unit	58/unit	58/unit				
Merchandise Circuit Requirements (208V, 3 ph, 60 Hz)					NEMA Plug			
Total Amps	7.8	10.1	15.7	17.3				
Maximum Current Capacity (MCA)	9.6	12.6	18.0	21.0				
Maximum Over Current Protection (MOPD)	20	20	20	25				



L21-20P



L21-30P

Optional Electrical Plug - NEMA L21-20P (2, 3, 4 dr) L21-30P (5 dr)

NOTE: MOPD for RLN5W is 25 amps for hard-wired cases. Cord-connected cases use a 30 amp plug, and must be connected to a 30 amp receptacle.

Defrost								
Drain Heaters (120V)	0.63	1.25	2.00	2.5	75	150	240	300
Electric Defrost (208V)	6.72	10.08	13.46	16.82	1400	2100	2800	3500

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	
STANDARD LED LIGHTING	2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3 Dr	4 Dr	5 Dr
Ultra (120V)	0.35	0.50	0.65	0.80	42	60	78	96
Ultra (220V Export)	0.19	0.27	0.35	0.43	42	60	78	96

RLN-W

Frozen Food / Ice Cream

ENDS or PARTITIONS

Each standard end and each insulated partition adds 2 in. (38 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)	945 (429)	1172 (532)	1645 (746)	1924 (873)	55 (25)

† Actual weights will vary according to optional kits included.

Shelf Options

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

20-inch

22-inch

Contact engineering for non-standard display recommendations.

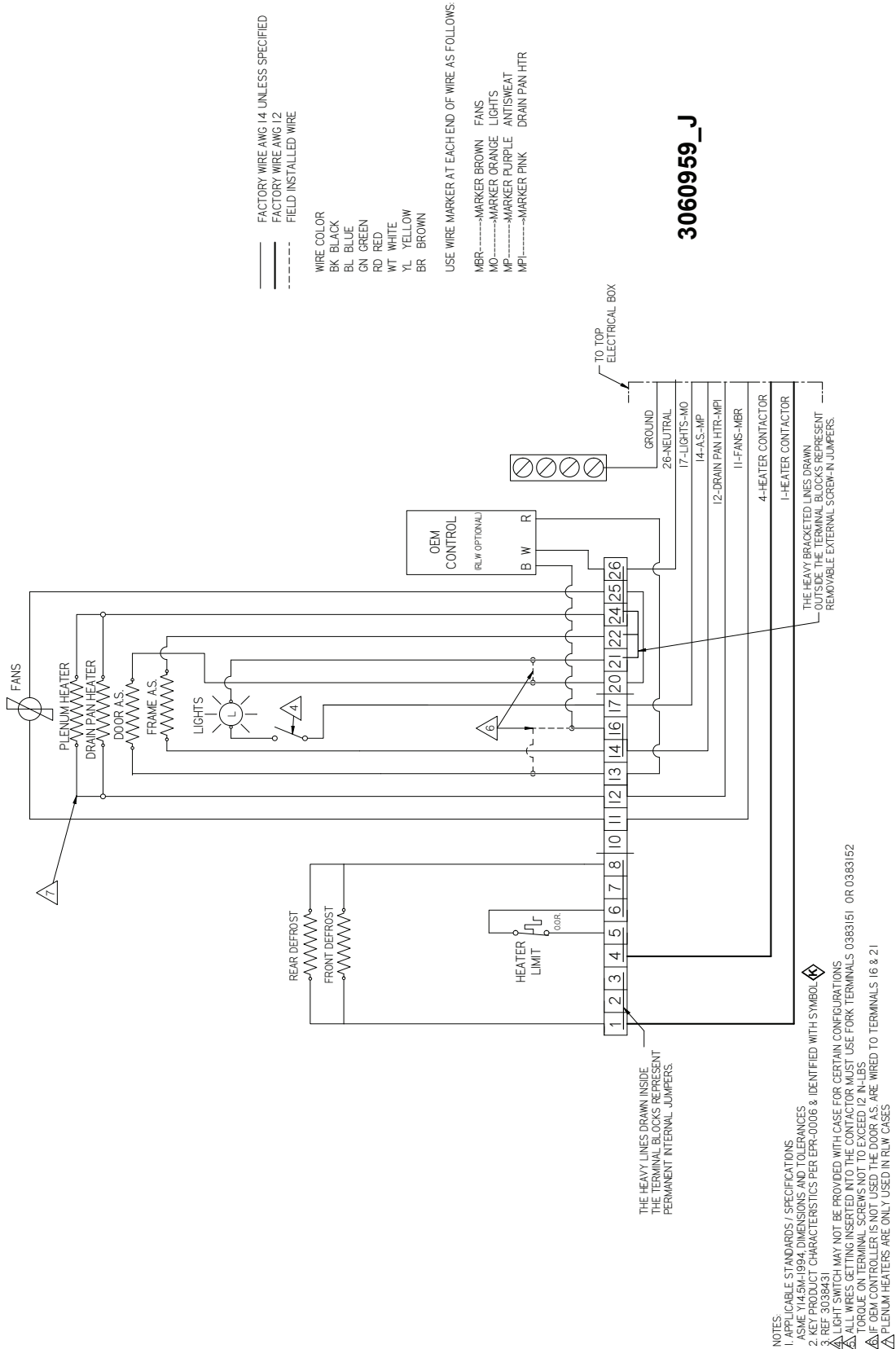
Optimal number of Shelves: 5 per door

Maximum number of Shelves: 5 per door

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

CoreLink Propane Wiring - 2 & 3 Door

RLN-W
Frozen Food / Ice Cream

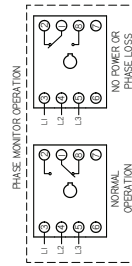
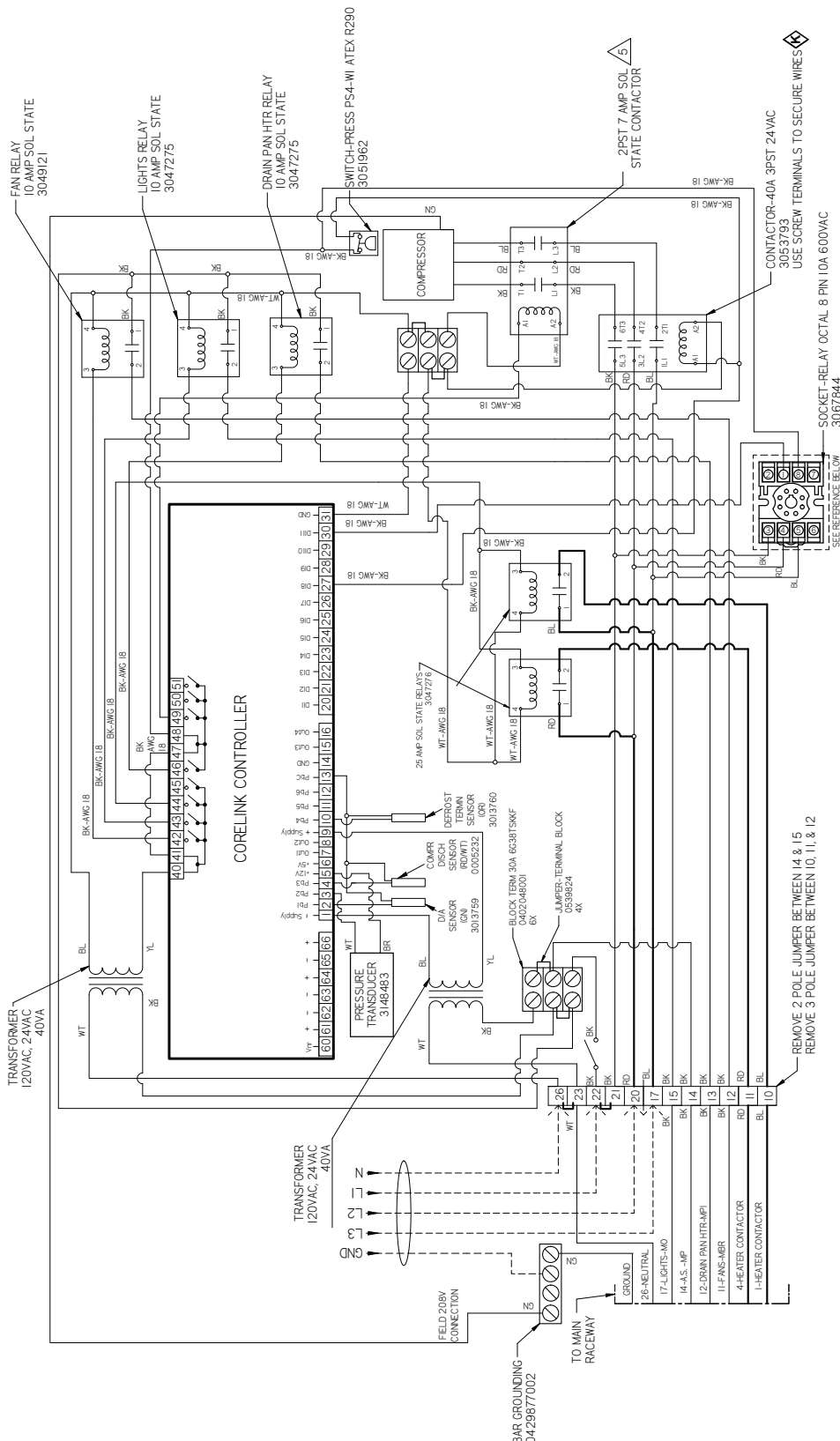


RLN-W

Frozen Food / Ice Cream

CoreLink Propane

Wiring - 2 & 3 Door

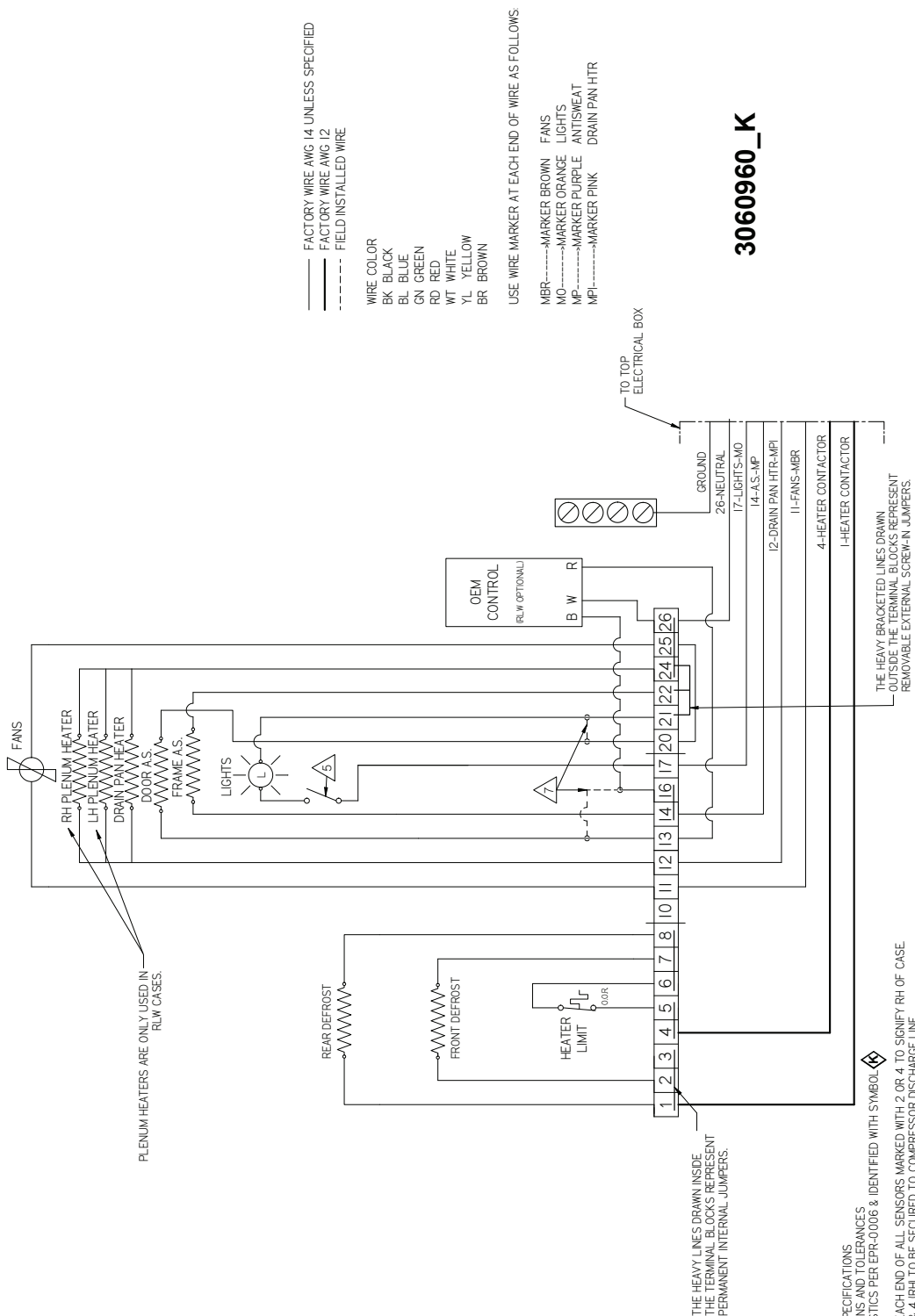


- NOTES:
1. APPLICABLE STANDARDS / SPECIFICATIONS
 2. ASME Y14.5M-1994, DIMENSIONS AND TOLERANCES
 3. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
 4. REF 3038431
 5. LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS
 6. ALL WIRES GETTING INSERTED INTO THE CONTACTOR MUST USE FORK TERMINALS 0383151 OR 0383152
 7. TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 IN.-LBS
 8. IF OEM CONTROLLER IS NOT USED THE DOOR A.S. ARE WIRED TO TERMINALS 16 & 21
 9. PLENUM HEATERS ARE ONLY USED IN RLW CASES

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CoreLink Propane Wiring - 4 Door

RLN-W
Frozen Food / Ice Cream



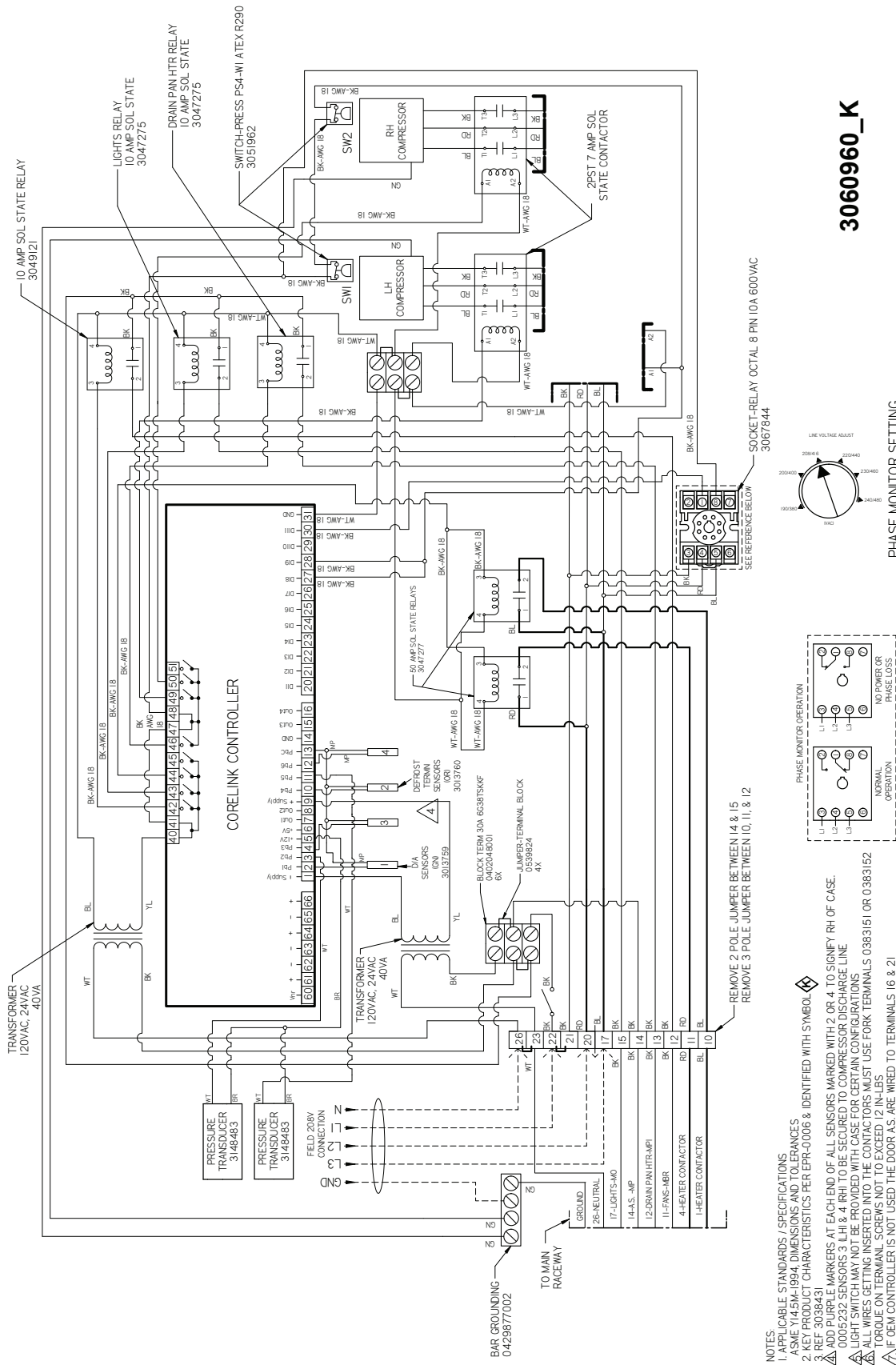
- NOTES
1. USE CABLE STANDARDS / SPECIFICATIONS.
 2. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL.
 3. REF 3038431
 4. ADD PURPLE MARKERS AT EACH END OF ALL SENSORS MARKED WITH 2 OR 4 TO SIGNIFY RH OF CASE.
 5. 0005232 SENSORS 3 ILH1 & 4 IRLH TO BE SECURED TO COMPRESSOR DISCHARGE LINE.
 6. LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS.
 7. ALL WIRES GETTING INSERTED INTO THE CONTACTORS MUST USE FORK TERMINALS 0383151 OR 0383152.
 8. TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 IN-LBS.
 9. IF OEM CONTROLLER IS NOT USED THE DOOR AS ARE WIRED TO TERMINALS 16 & 21.

RLN-W

Frozen Food / Ice Cream

CoreLink Propane

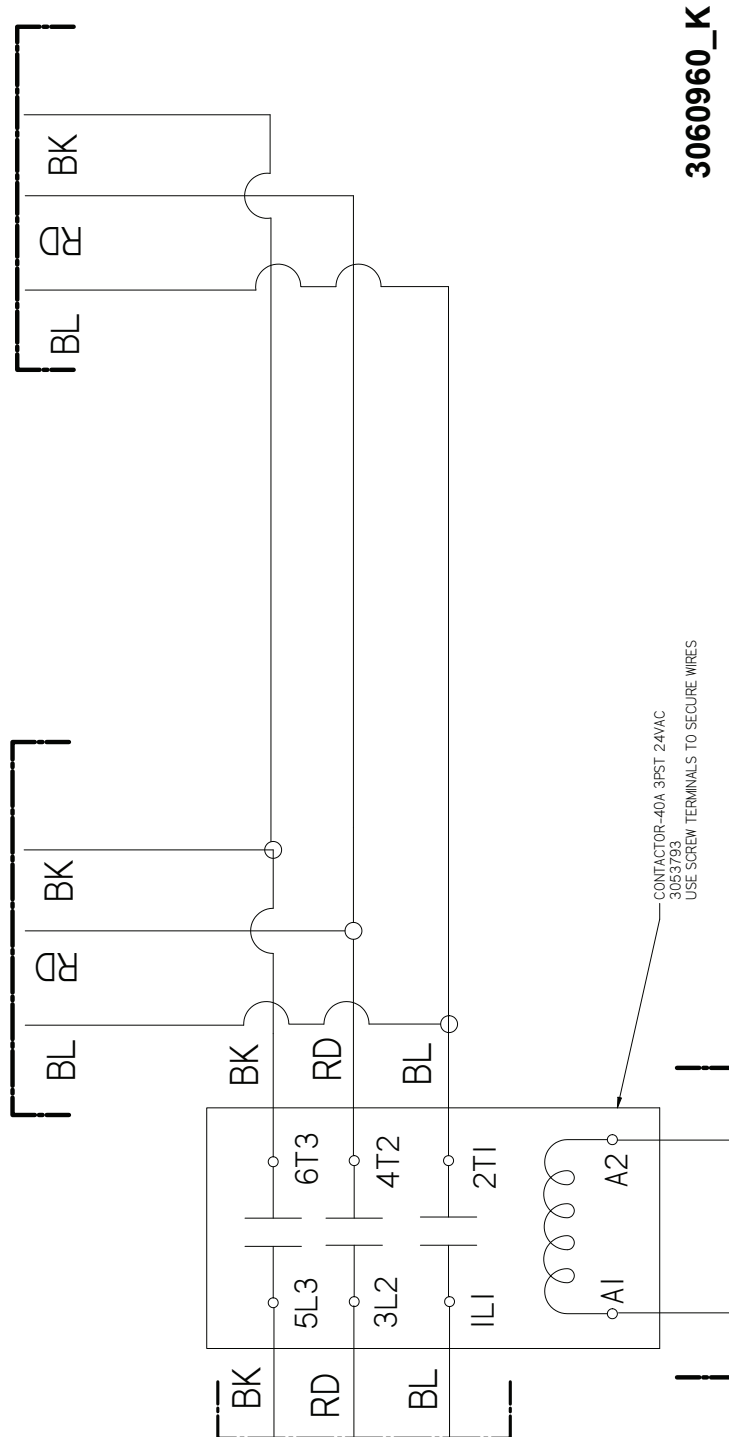
Wiring - 4 Door



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CoreLink Propane Wiring - 4 Door

RLN-W Frozen Food / Ice Cream



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 - 2. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
 - 3. REF 3038431
 2. ADD PURPLE MARKERS AT EACH END OF ALL SENSORS MARKED WITH 2 OR 4 TO SIGNIFY RH OF CASE
 3. 0006232 SENSORS 3 ILH1 & 4 IRLH TO BE SECURED TO COMPRESSOR DISCHARGE LINE
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RLN-W

Frozen Food / Ice Cream

CoreLink Propane

Wiring - 5 Door

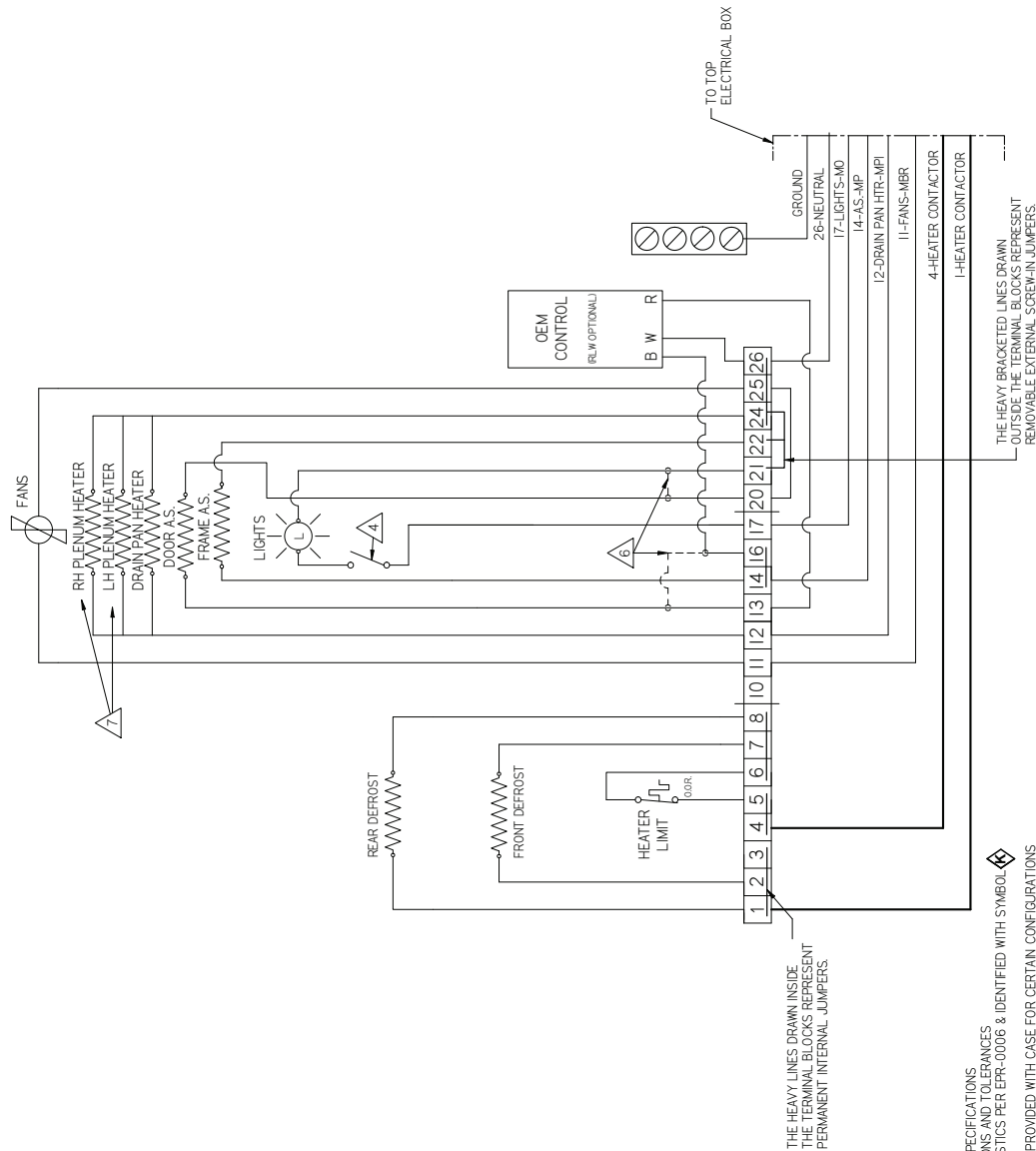
— FACTORY WIRE AWG 14 UNLESS SPECIFIED
 — FACTORY WIRE AWG 12
 - - - - - FIELD INSTALLED WIRE

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

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

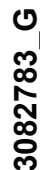
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- NOTES:
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 3. KEY PRODUCT CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
 4. REF 3038431
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 7. TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 IN-LBS
 8. IF OEM CONTROLLER IS NOT USED THE DOOR A.S. ARE WIRED TO TERMINALS 16 & 21
 9. PLENUM HEATERS ARE ONLY USED IN RLW CASES

CoreLink Propane Wiring - 5 Door

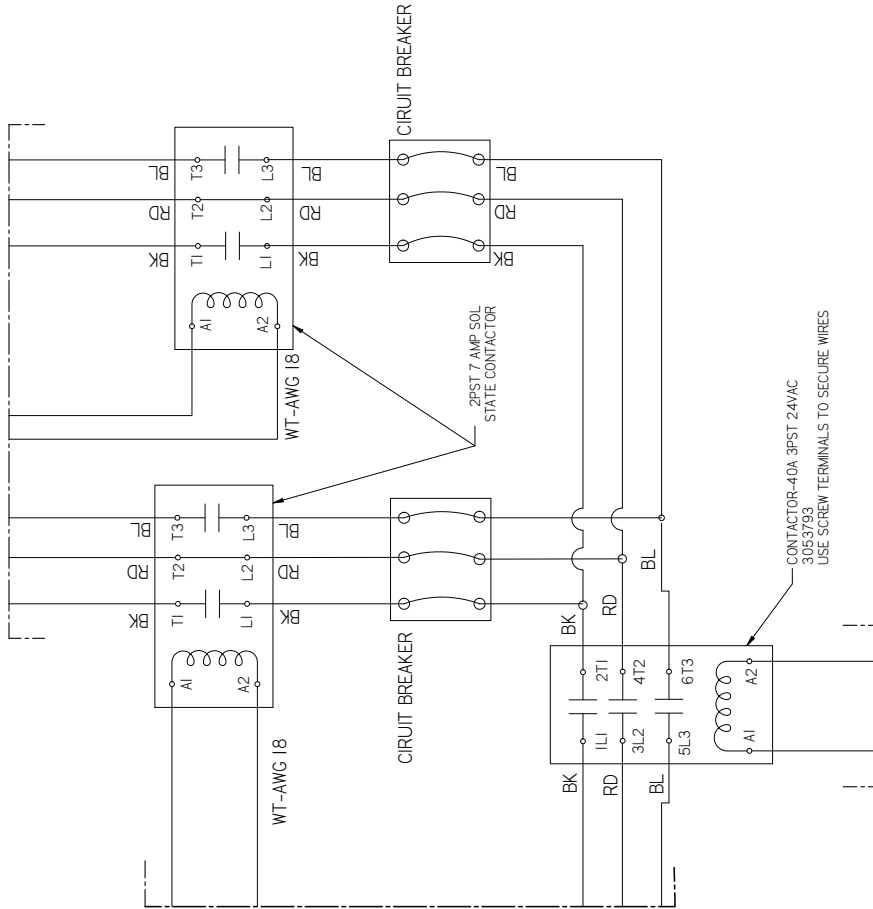
RLN-W Frozen Food / Ice Cream



NOTES:

1. APPLICABLE STANDARDS / SPECIFICATIONS
2. IEC 145-115-1994, DIMENSIONS AND TOLERANCES
3. IEC 145-115-1994, CHARACTERISTICS PER EPR-0006 & IDENTIFIED WITH SYMBOL
4. REF. 10383431
5. ALL WIRE TYPES MUST NOT BE PROVIDED WITH CERTAIN CONFIGURATIONS
6. A LIGHT SWITCH INSERTED INTO THE CONTACTORS MUST USE FORK TERMINALS
7. ALL TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 N-HLBS
8. IF A FAN CONTROLLER IS NOT USED THE DOOR AS, ARE WIRED TO TERMINALS 16 & 17
9. IF A PLENUM HEATERS ARE ONLY USED IN R/LW CASES

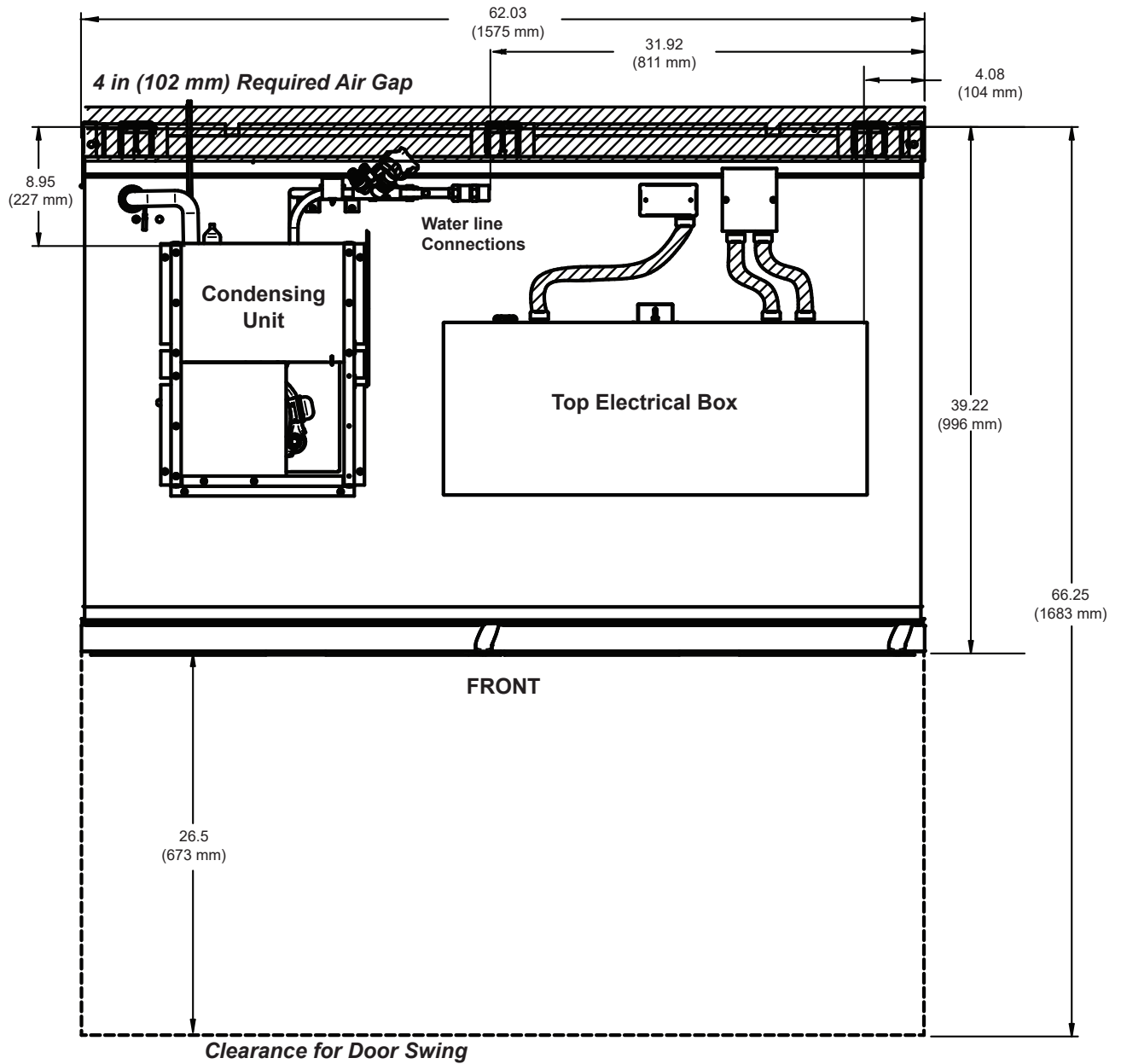
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RLN-W Top Views

RLN-W Frozen Food / Ice Cream



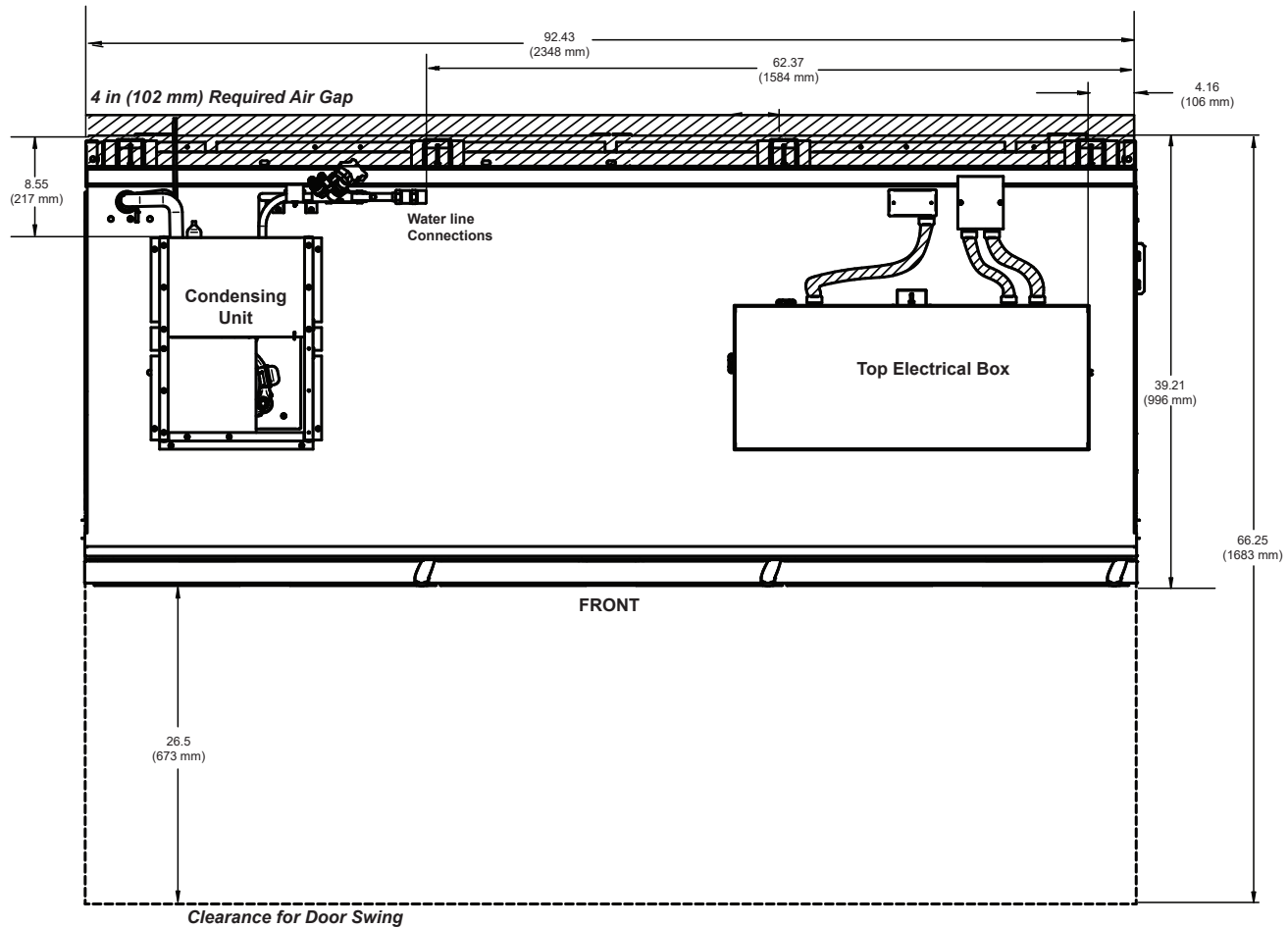
RLN2W TOP VIEW

RLN-W

Frozen Food / Ice Cream

RLN-W

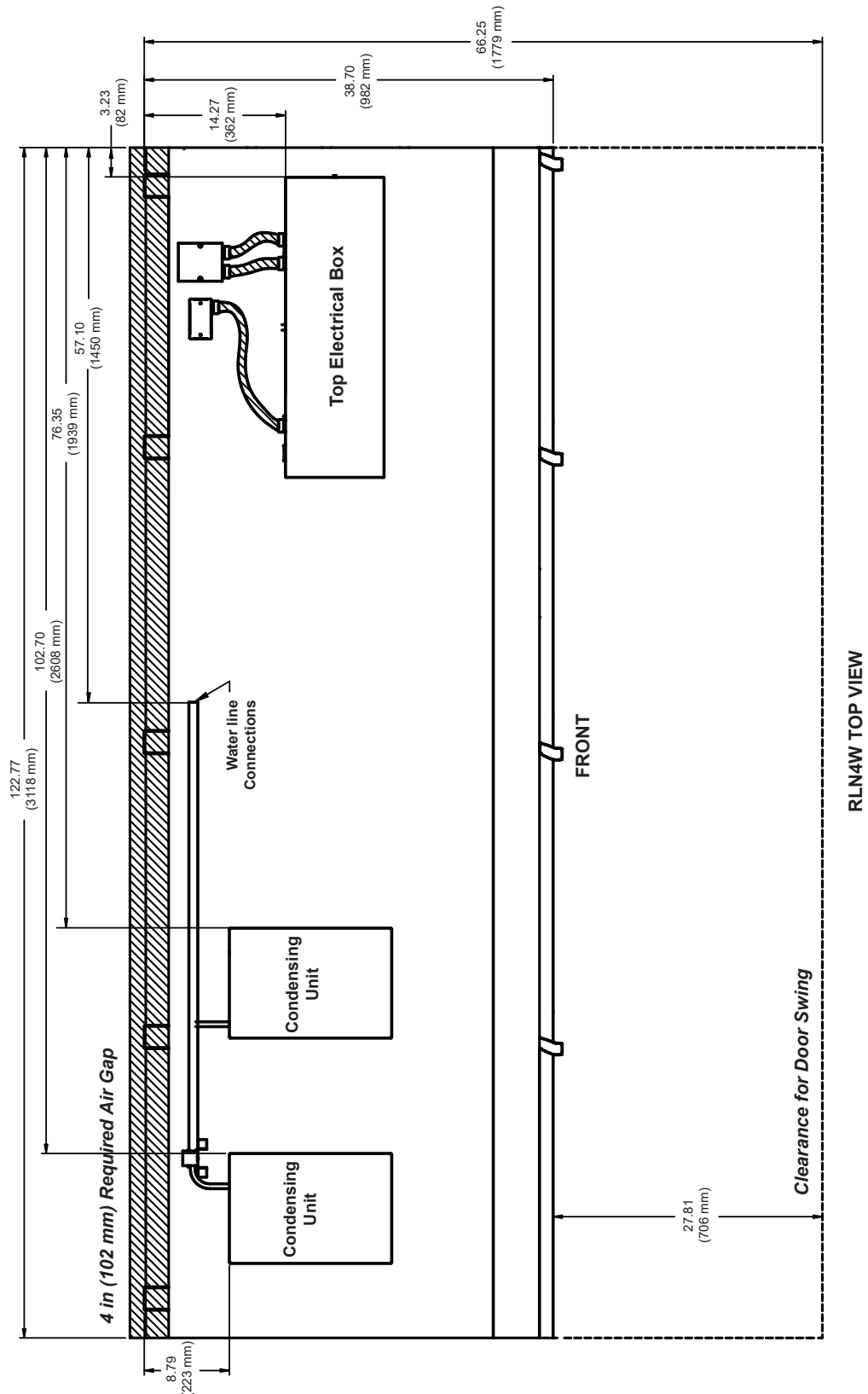
Top Views



RLN3W TOP VIEW

RLN-W Top Views

RLN-W Frozen Food / Ice Cream

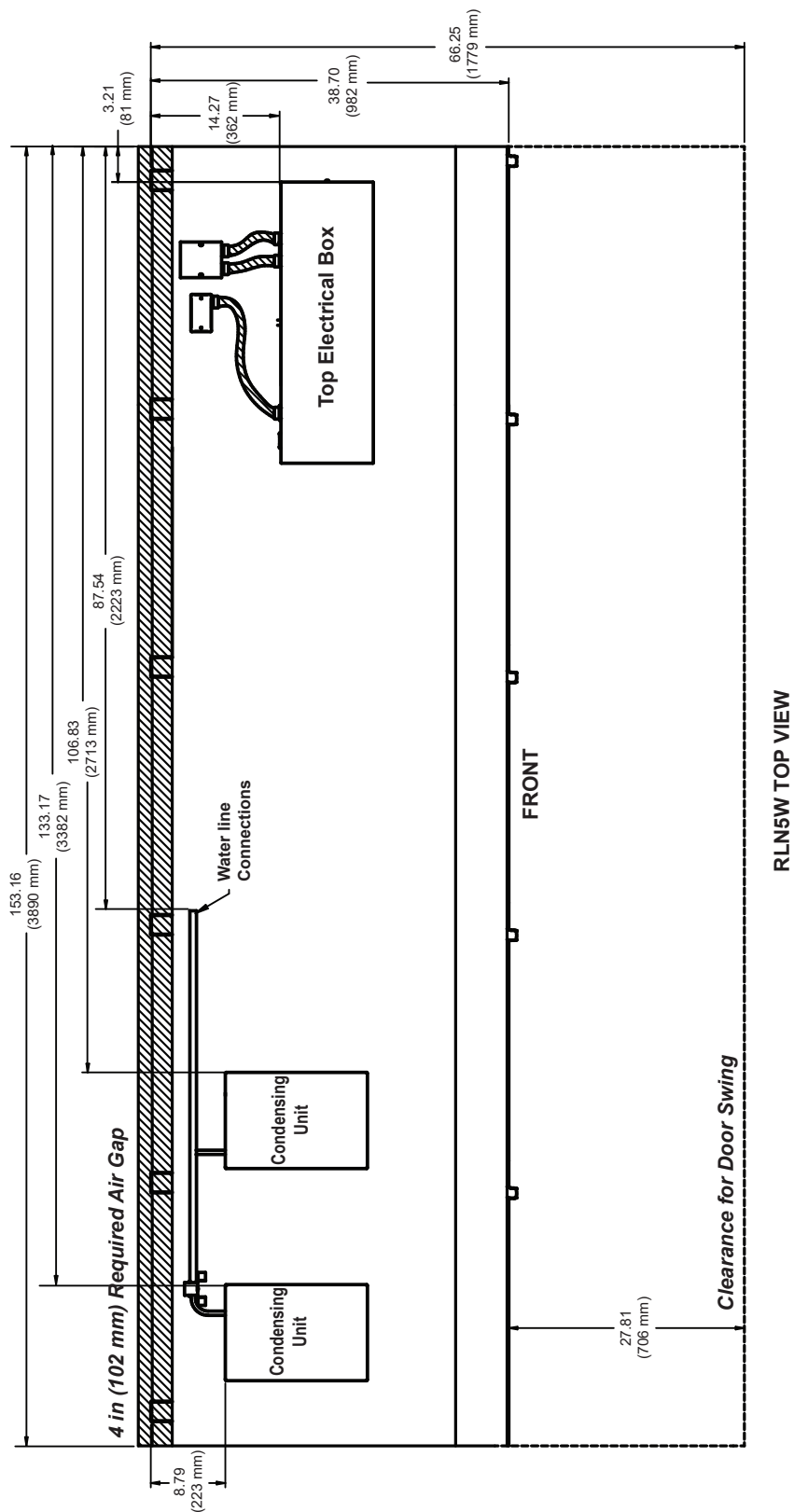


RLN-W

Frozen Food / Ice Cream

RLN-W

Top Views





Scan the QR code on 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: January 2019: New Document

Revision B: February 2020: Updated ISO, refrigeration data, electrical data, wiring diagrams and top views, and removed replace parts page

Revision C: June 2020: Updated electrical data on page 5.

Revision D: April 2022: Removed note on page 10; updated wiring diagrams.