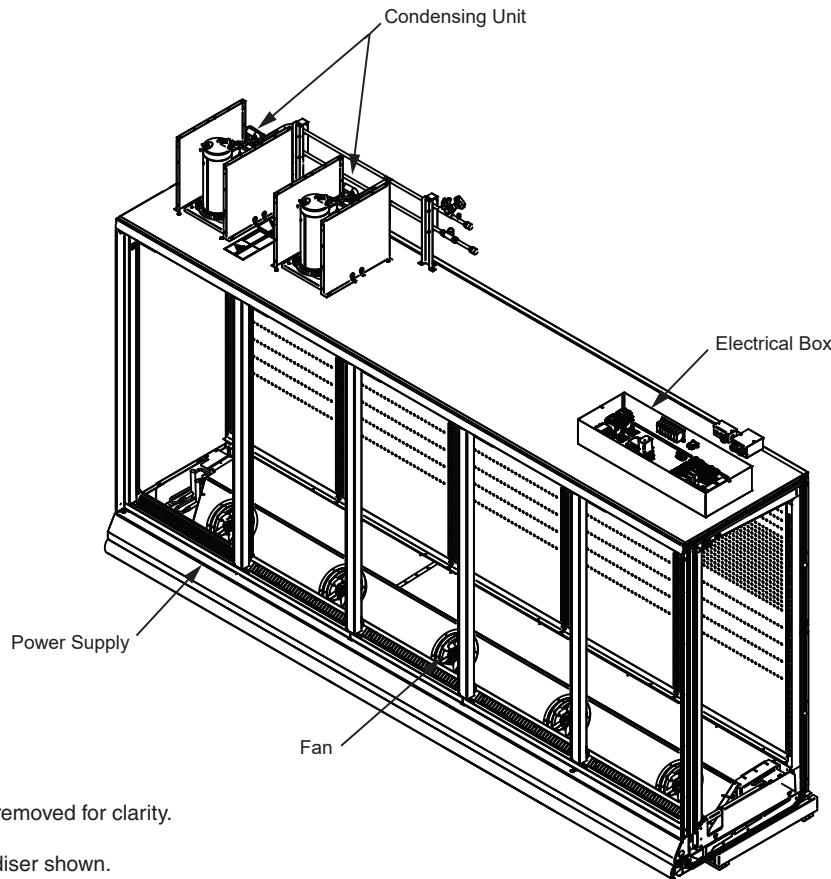


HUSSMANN®

microDS™

RLN-W
 with INNOVATOR Doors
 or INNOVATOR III Doors
 Water-cooled
 Self-Contained
 R290 (Propane)

Merchandise Data Sheet
P/N 3081716_B
UL EPH® Certified
 January 2020



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.

Performance Data	Page 2	Shelf Options	Page 6
Product Data (AHRI Statistics)	Page 2	Wiring Diagrams	Page 7
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Plan View	Page 4	QR Code for Parts and Product Information	Page 16
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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

RLN-W

Cooling Water Pressure Drop ⁴

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

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

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)

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.

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 3/4" female NPT fitting is required to connect to the 3/4" 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 3/4" female NPSM fittings. Maximum working pressure of water side components: 100 psig

Product Data

Gross Refrigerated Volume⁷ (Cu Ft/Dr)	22.80 ft ³ /dr (0.65 m ³ /dr)
AHRI Total Display Area⁸ (Sq Ft/Dr)	13.04 ft ² /dr (1.21 m ² /dr)
Shelf Area⁹ (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 R290 Propane

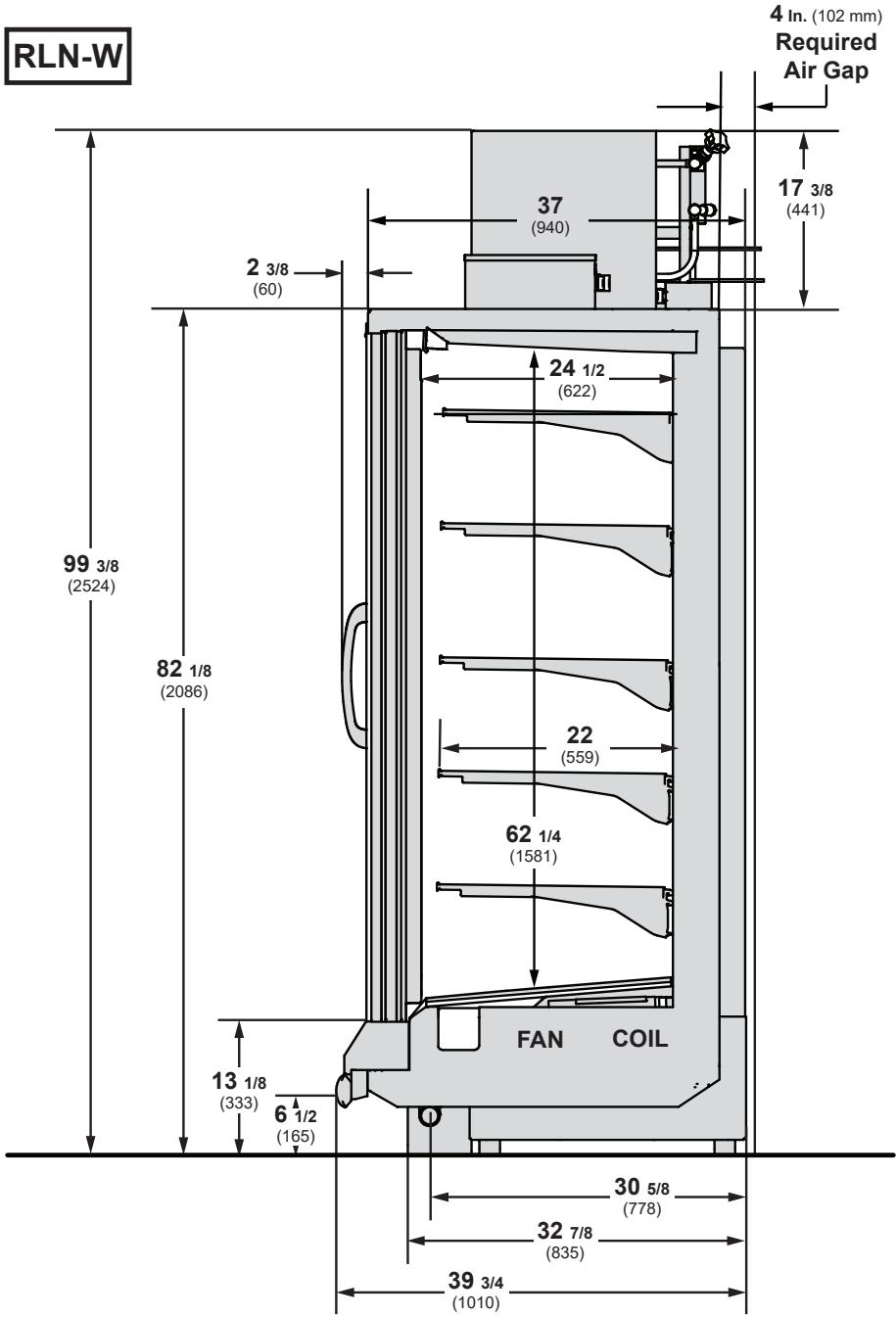
RLN-W
 Frozen Food / Ice Cream

DOE 2017
 Energy Efficiency
 Compliant

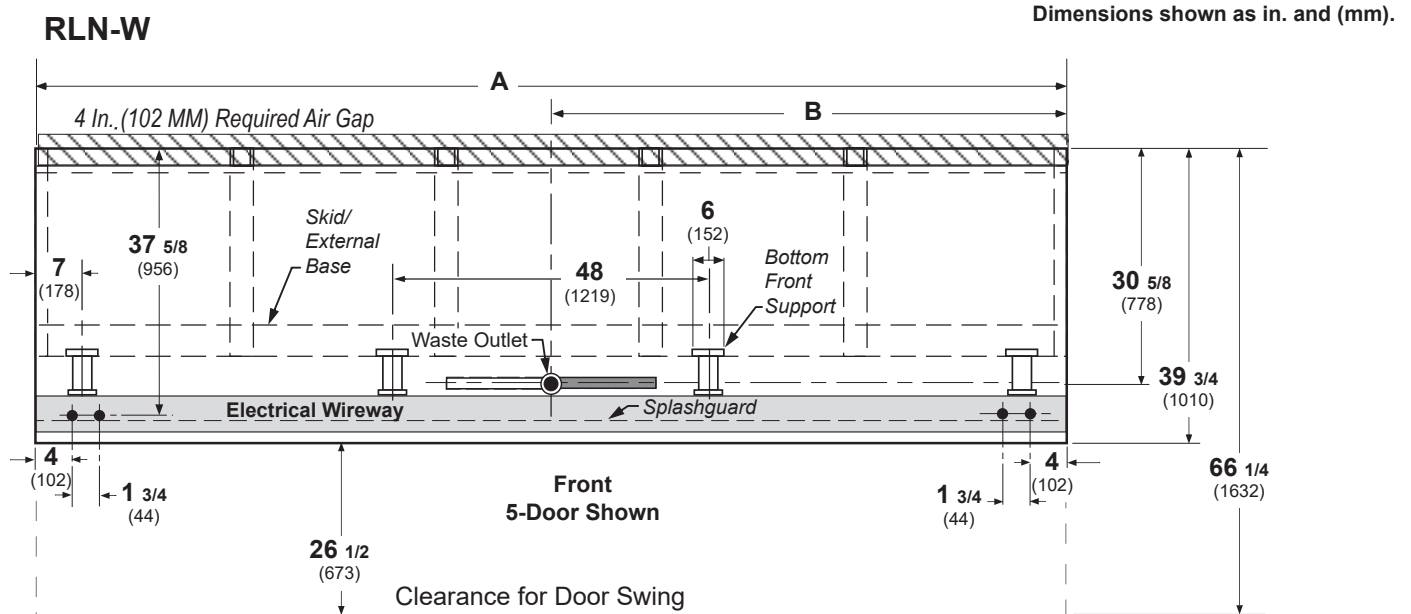
Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

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	3 dr	4 dr	5 dr				
	2	3	4	5	Amperes		Watts	
Evaporator Fan	2 dr	3 dr	4 dr	5 dr	2 dr	3 dr	4 dr	5 dr
120V 50/60Hz	0.60	0.90	1.20	1.50	36	54	72	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 (120V, 1 ph, 60 Hz) Standard

NOTE: One compressor can start at a time.

	2 dr	3 dr	4 dr	5 dr
Compressor RLA	6.3	7.0	11.2	11.9
Compressor LRA	58/unit	58/unit	58/unit	58/unit

NEMA Plug



L21-20P



L21-30P

Merchandise Circuit Requirements (120V, 1 ph, 60 Hz)

	2 dr	3 dr	4 dr	5 dr
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

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

	2 dr	3 dr	4 dr	5 dr	2 dr	3 dr	4 dr	5 dr
Drain Heaters (120V)	0.63	1.25	2.00	2.57	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.

STANDARD LIGHTING

EcoShine II	2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3Dr	4 Dr	5 Dr
120V	0.31	0.46	0.62	0.77	37.1	55.6	74.2	92.7

OPTIONAL LIGHTING

EcoShine II	2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3Dr	4 Dr	5 Dr
[22 W] 120V	0.36	0.52	0.68	0.84	43.2	62	81	100

GE Illumination

	2 Dr	3 Dr	4 Dr	5 Dr	2 Dr	3Dr	4 Dr	5 Dr
120V	0.30	0.45	0.60	0.75	36	54	72	90

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

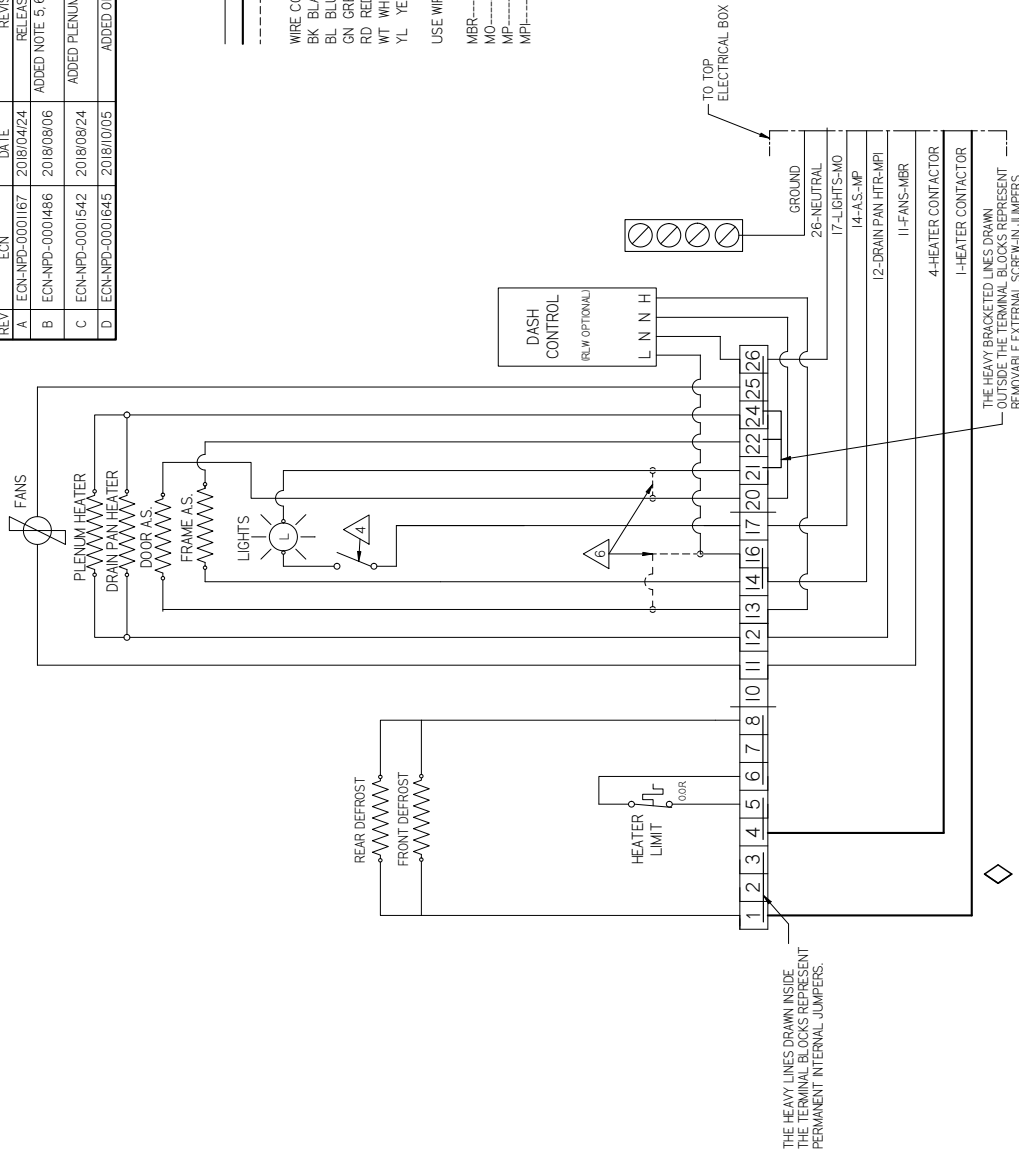
REV	ECN	DATE	REVISION HISTORY	REV BY	CHKD BY	APPR BY
A	ECN-NPD-0001167	2018/04/24	RELEASED TO PRODUCTION	MDL	AGA	MDL
B	ECN-NPD-0001486	2018/08/06	ADDED NOTE 5, 6 & 3067844; 6X 4X WAS 3X 2X	MDL	AGA	MDL
C	ECN-NPD-0001542	2018/08/24	ADDED PLENUM HEATERS & UPDATED WIRE ROUTING	MDL	AGA	MDL
D	ECN-NPD-0001645	2018/10/05	ADDED OPERATION REFERENCE	MDL	MDL	MDL

_____ 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
 MPT----->MARKER PINK DRAIN PAN HTR



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NOTES

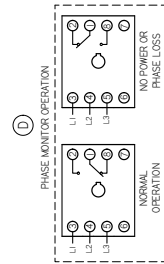
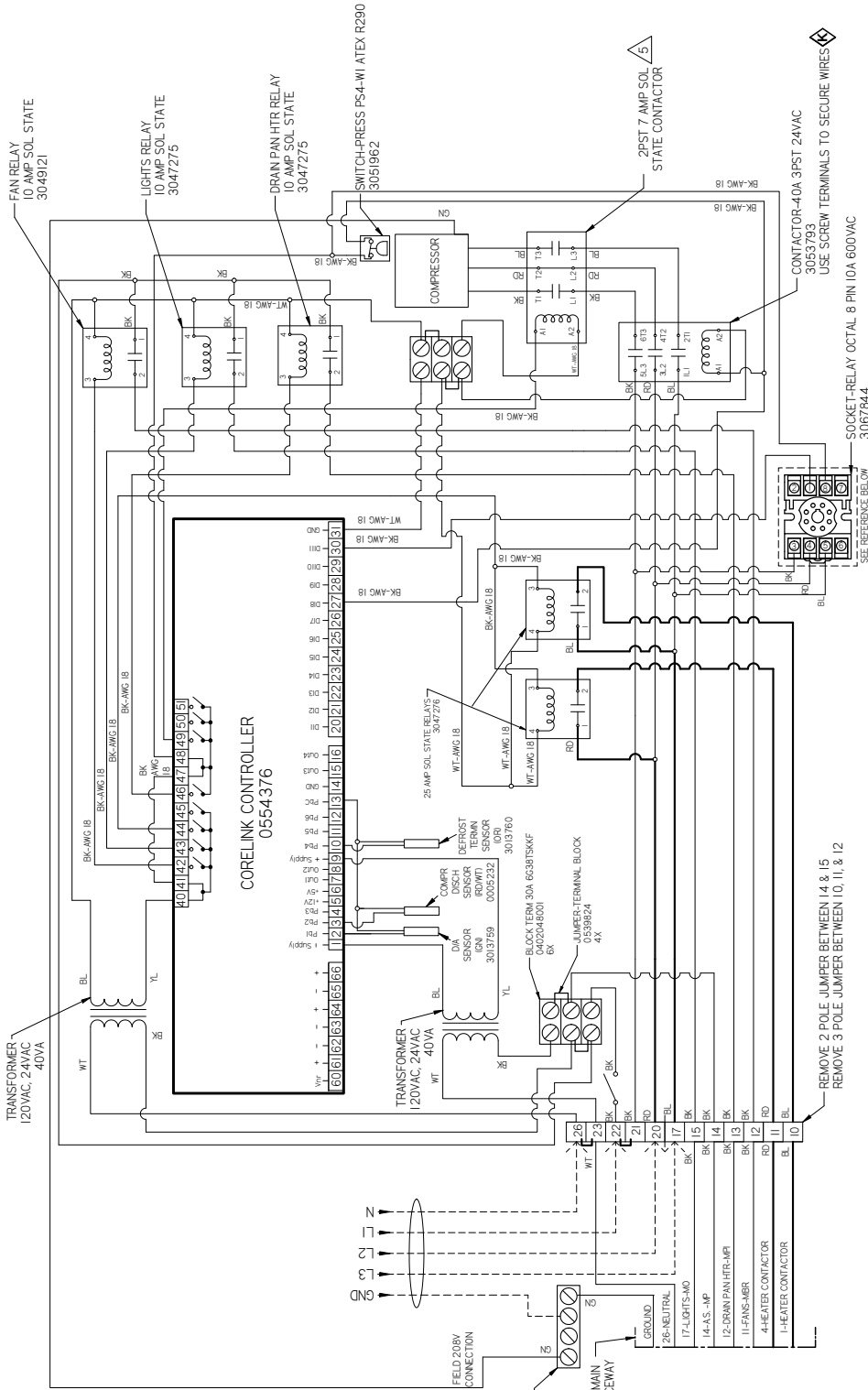
- ⚠ LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS
- ⚠ TORQUE SPECIFICATIONS: TORQUE SCREWS MUST BE TORQUED TO 0.8 N.M. (7.0 INCH LBS)
- ⚠ TORQUE SPECIFICATIONS: TORQUE SCREWS NOT TO EXCEED 0.8 N.M. (7.0 INCH LBS)
- ⚠ F DASH CONTROLLER IS NOT USED THE DOOR A.S. ARE WIRED TO TERMINALS 16 & 21

RLN-W

Frozen Food / Ice Cream

CoreLink Propane

Wiring - 2 & 3 Door



NOTES:
 ⚠️ LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS
 ⚠️ ALL WIRES GETTING INSERTED INTO THE CONTACTOR MUST USE FORK TERMINALS 0383151 OR 0383152
 ⚠️ TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 IN-LBS
 ⚠️ IF DASH CONTROLLER IS NOT USED THE DOOR A.S. ARE WIRED TO TERMINALS 16 & 21

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CoreLink Propane Wiring - 4 Door

RLN-W Frozen Food / Ice Cream

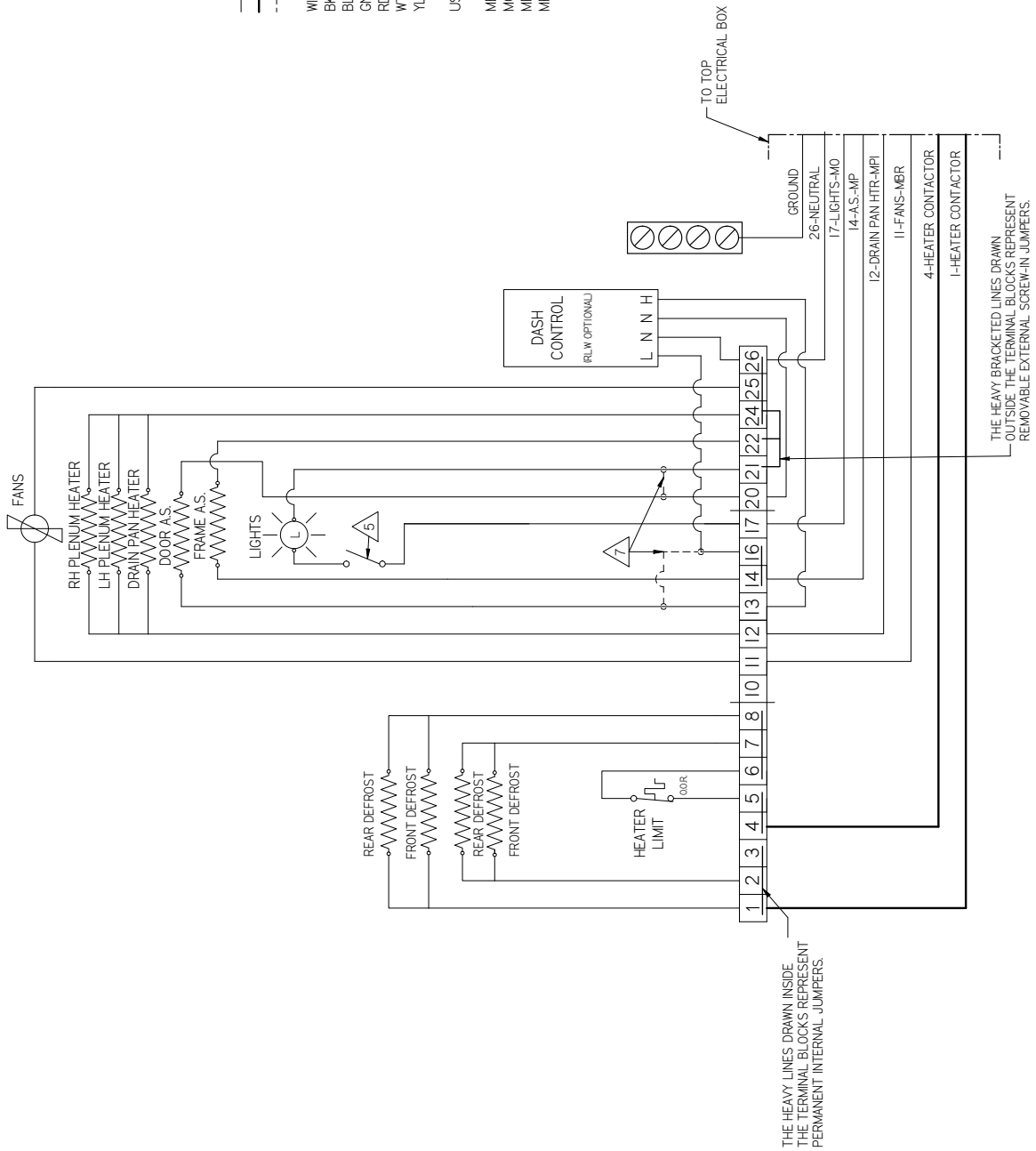
_____ FACTORY WIRE AWG 14 UNLESS SPECIFIED
 _____ FACTORY WIRE AWG 12
 - - - - - FIELD INSTALLED WIRE

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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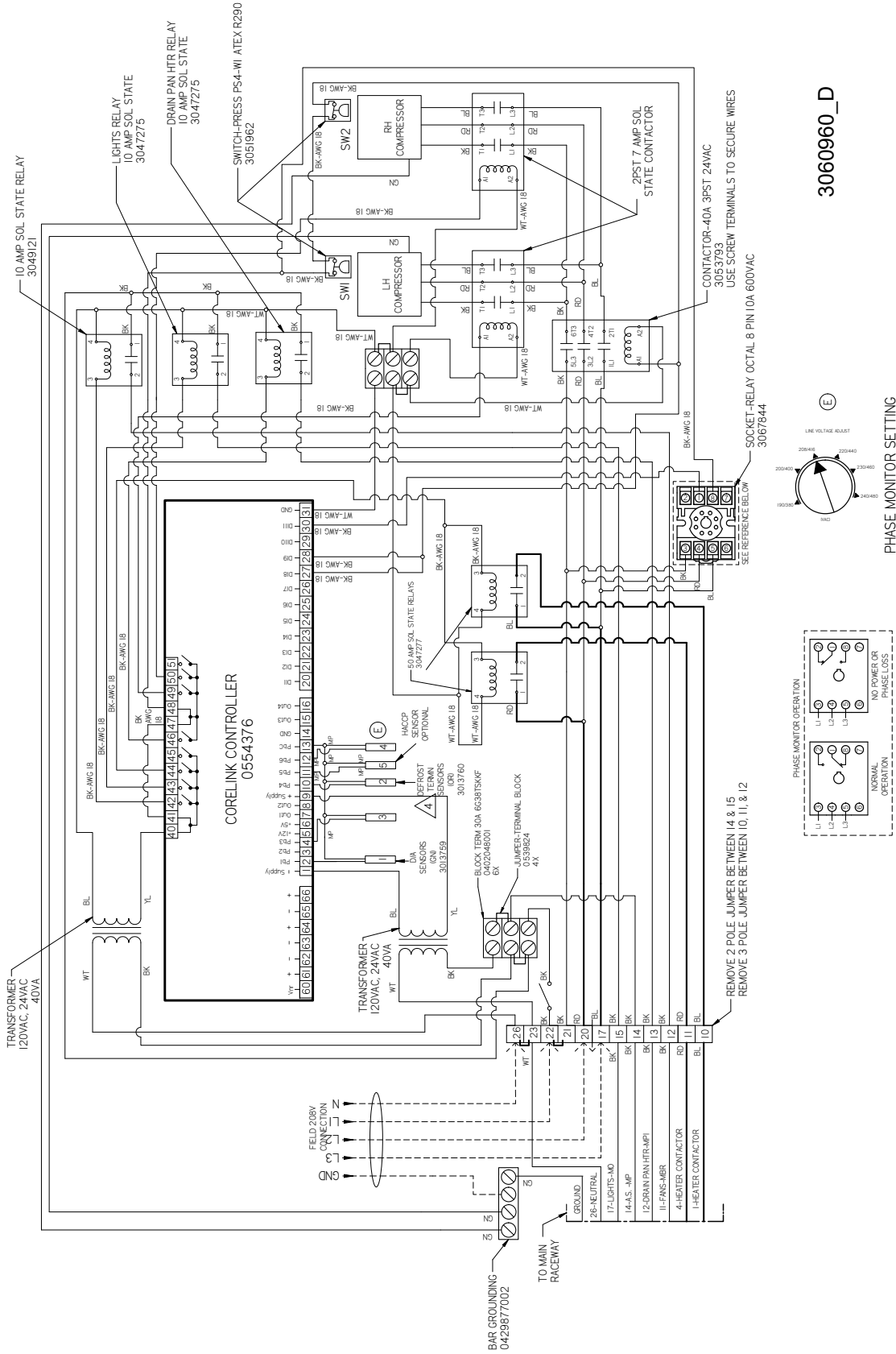


RLN-W

Frozen Food / Ice Cream

CoreLink Propane

Wiring - 4 Door



CoreLink Propane Wiring - 5 Door

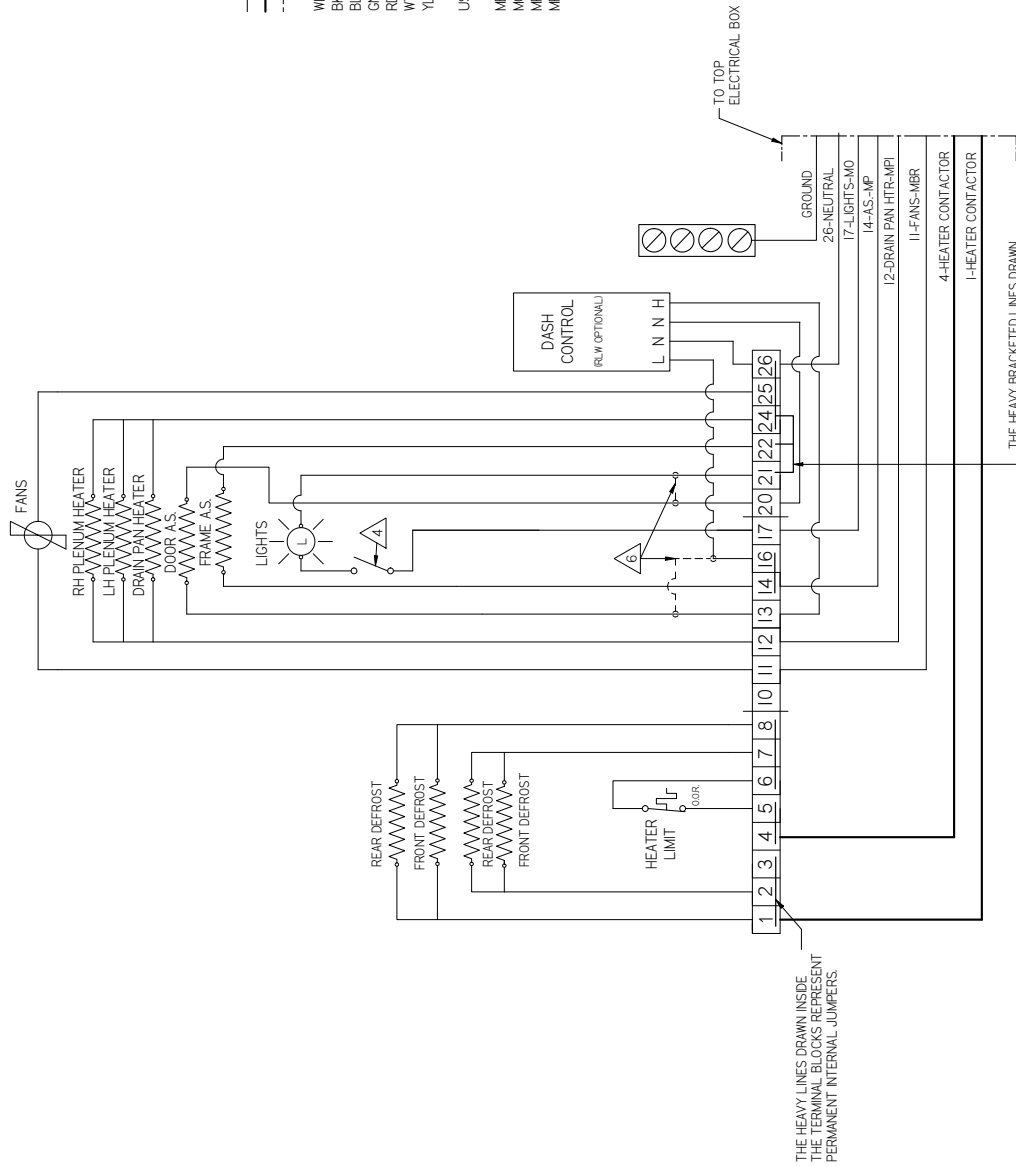
RLN-W Frozen Food / Ice Cream

_____ 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



NOTES

- ▲ LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS
- ▲ ALL WIRES GETTING INSERTED INTO THE CONTACTORS MUST USE FORK TERMINALS 0383151 OR 0383152
- ▲ TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 N-LBS
- ▲ DASH CONTROLLER IS NOT USED THE DOOR A.S. ARE WIRED TO TERMINALS 16 & 21

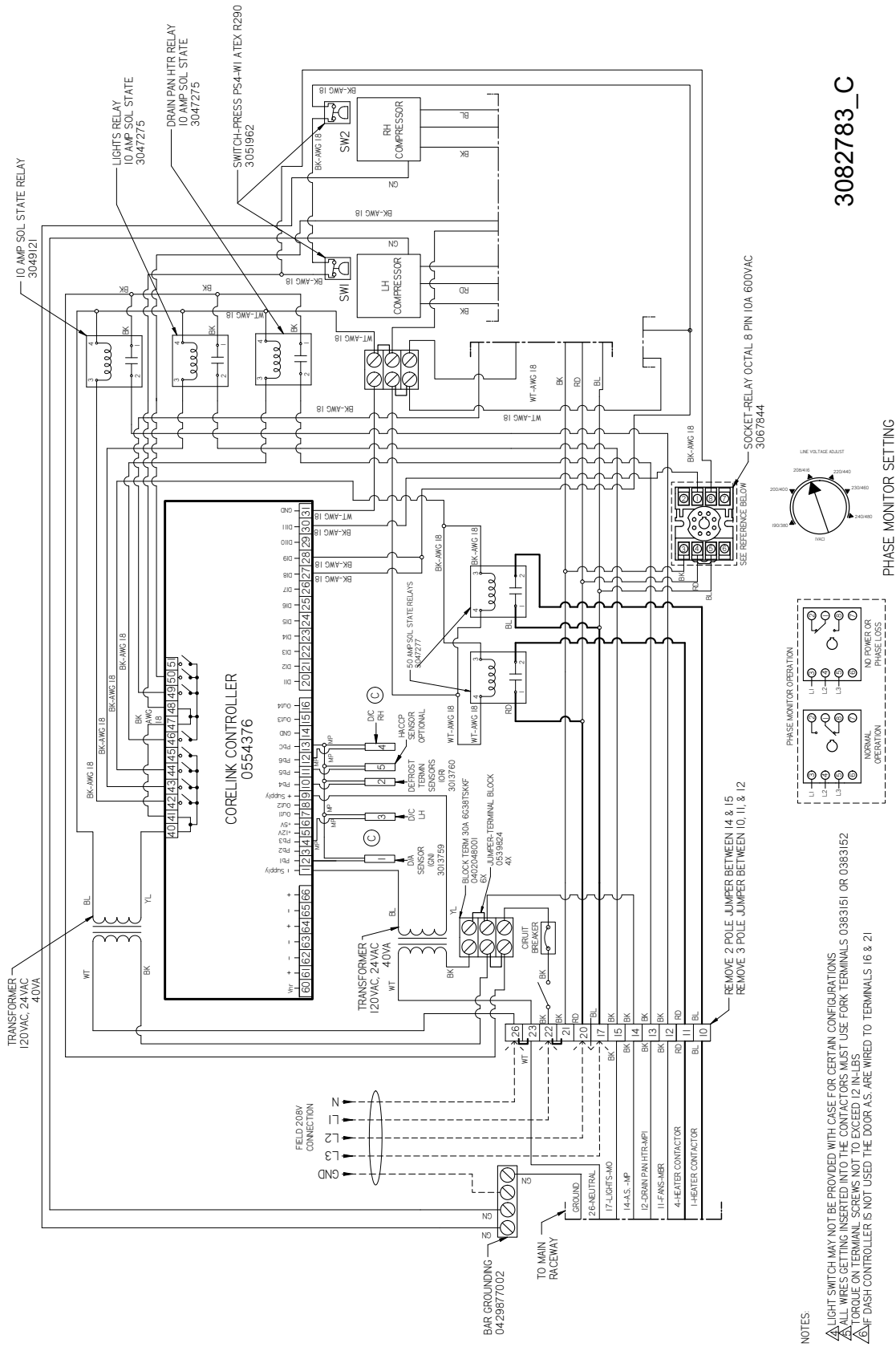
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RLN-W

Frozen Food / Ice Cream

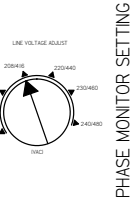
CoreLink Propane

Wiring - 5 Door



NOTES

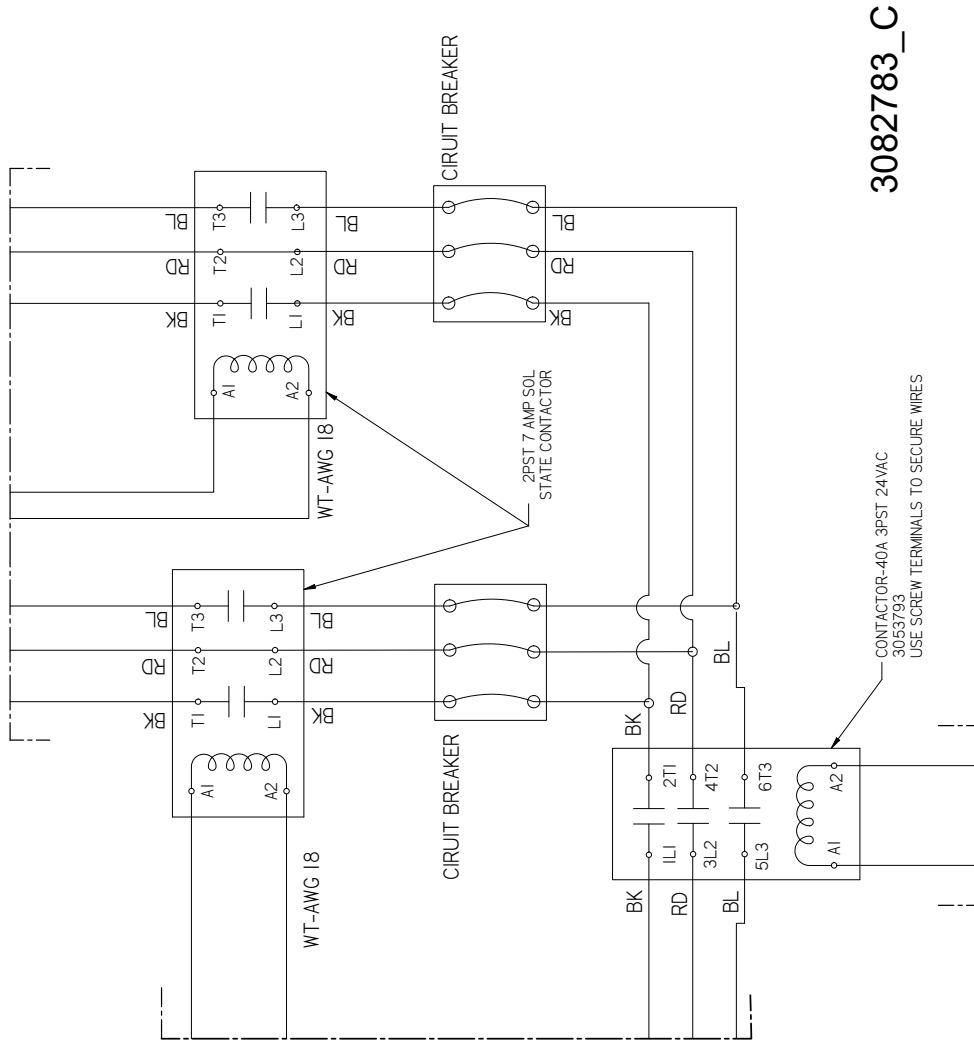
- ▲ LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS
- ▲ IF DASH CONTROLLER IS NOT USED THE DOOR AS ARE WIRED TO TERMINALS 16 & 21
- ▲ REMOVE 2 POLE JUMPER BETWEEN 14 & 15 REMOVE 3 POLE JUMPER BETWEEN 10, 11 & 12
- ▲ TORQUE TERMINAL SCREWS NOT TO EXCEED 12 INCH LBS



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CoreLink Propane Wiring - 5 Door

RLN-W Frozen Food / Ice Cream



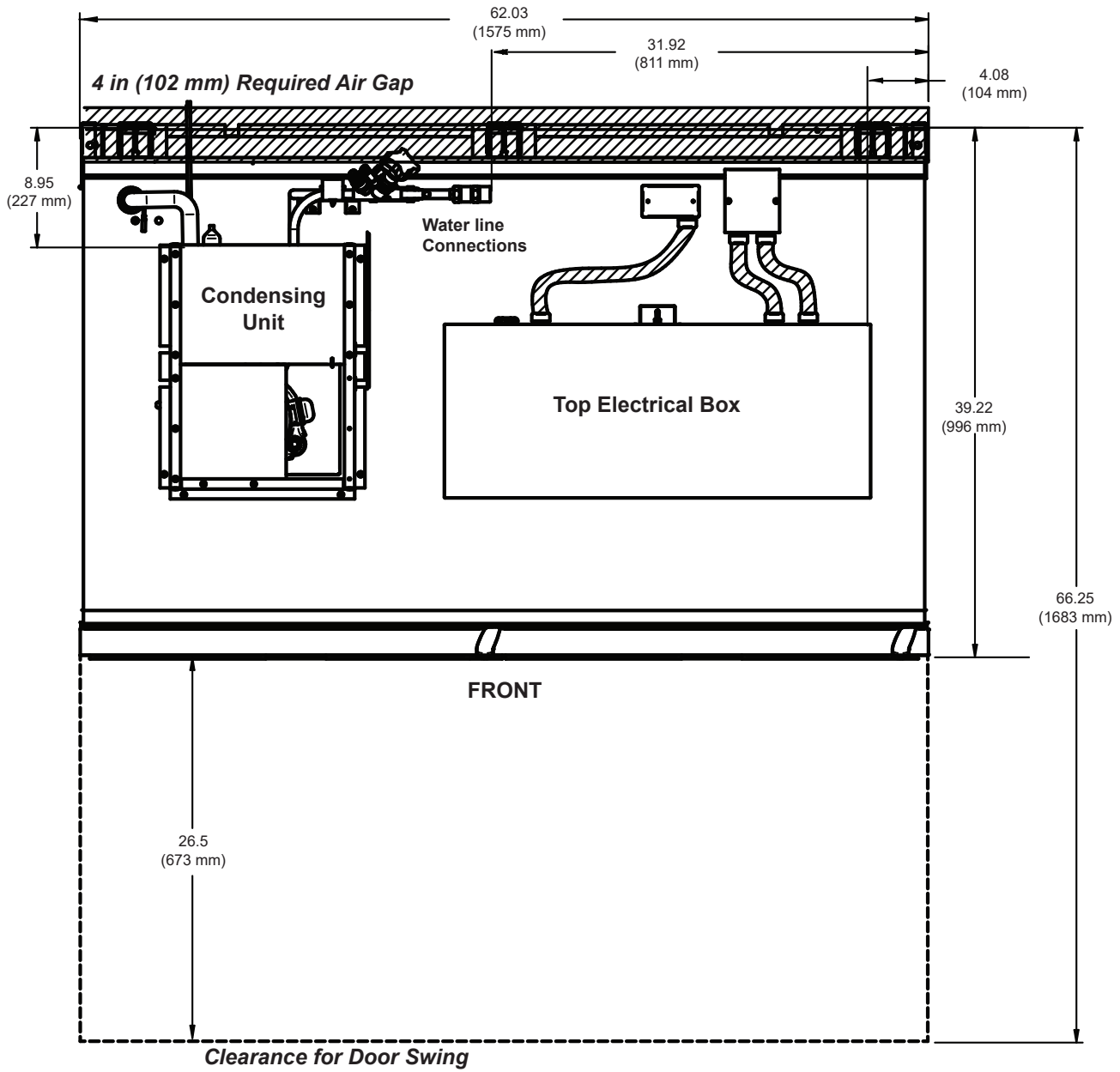
3082783_C

NOTES:

- ⚠ LIGHT SWITCH MAY NOT BE PROVIDED WITH CASE FOR CERTAIN CONFIGURATIONS.
- ⚠ ALL WIRES GETTING INSERTED INTO THE CONTACTORS MUST USE FORK TERMINALS 0383151 OR 0383152
- ⚠ TORQUE ON TERMINAL SCREWS NOT TO EXCEED 12 IN.LBS.
- ⚠ IF DASH CONTROLLER IS NOT USED THE DOOR AS-ARE WIRED TO TERMINALS 16 & 21

RLN-W
Frozen Food / Ice Cream

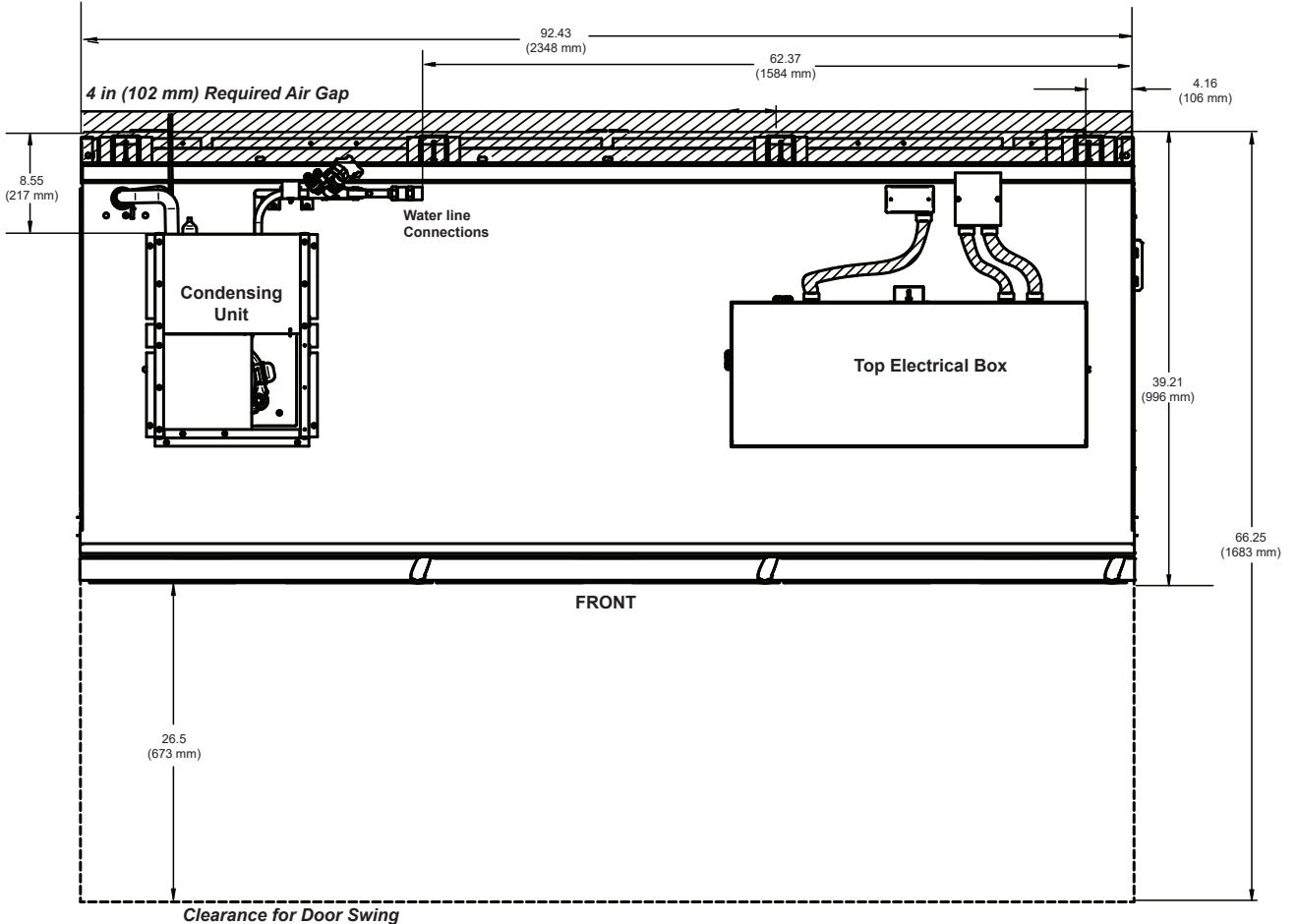
RLN-W
Top Views



RLN2W TOP VIEW

**RLN-W
Top Views**

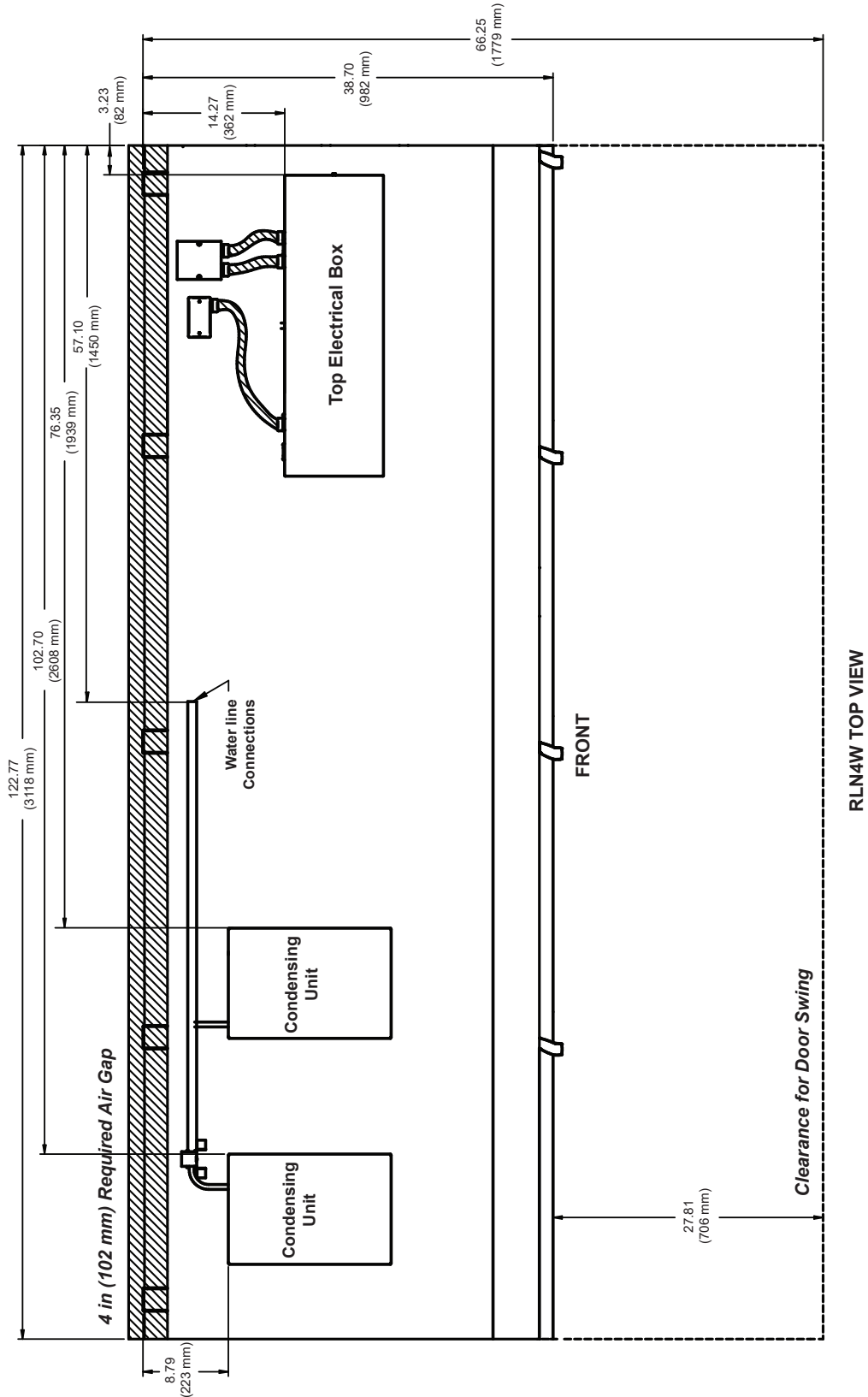
**RLN-W
Frozen Food / Ice Cream**



RLN3W TOP VIEW

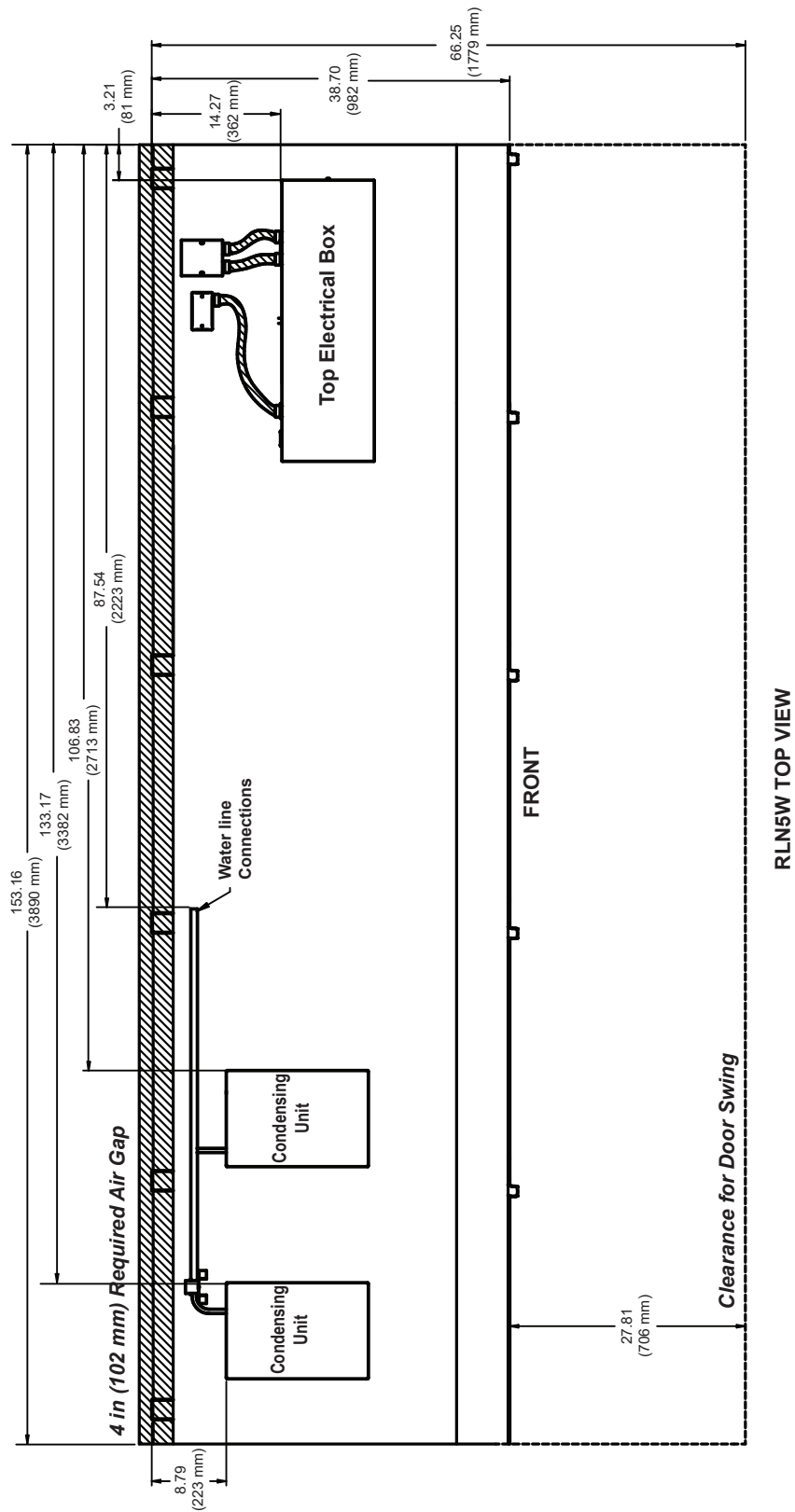
RLN-W
Frozen Food / Ice Cream

RLN-W
Top Views



**RLN-W
Top Views**

**RLN-W
Frozen Food / Ice Cream**



RLN-W
Frozen Food / Ice Cream



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: January 2020: Updated ISO, refrigeration data, electrical data, wiring diagrams and top views, and removed replace parts page.