

HUSSMANN®



Freedom Line RFL with INNOVATOR Doors or INNOVATOR III Doors

Freedom Line merchandisers are top mount
refrigeration ready

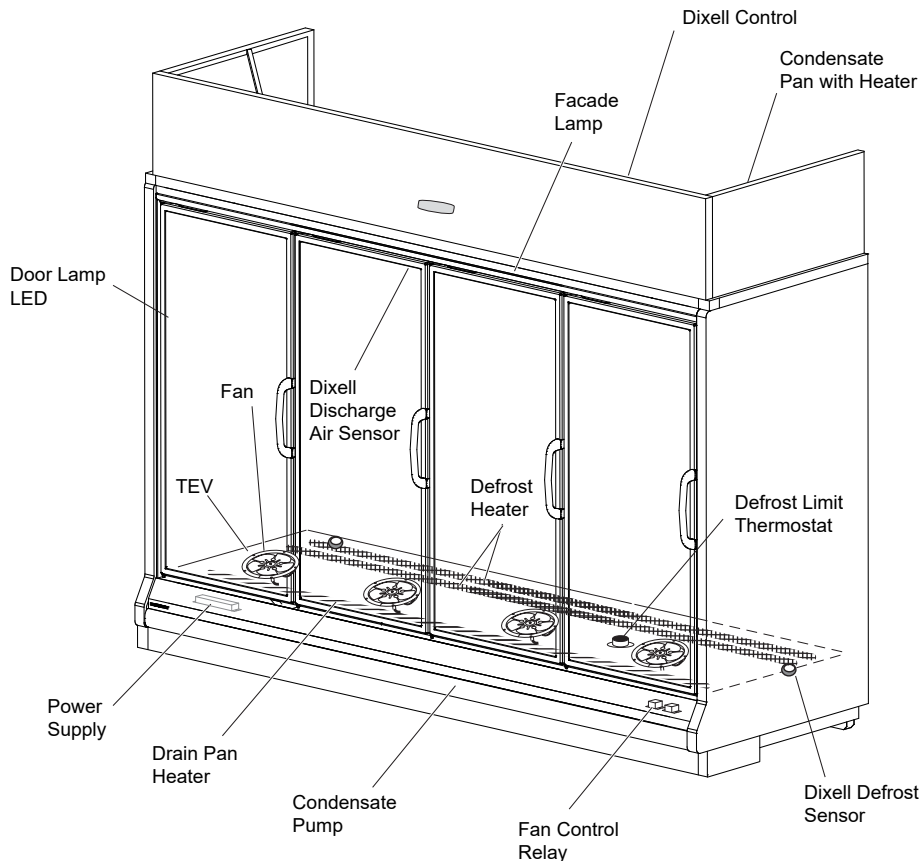
Low Temperature

Technical Data Sheet
P/N 3002316_G

NSF® Certified

February 2021

DOE 2017
Energy Efficiency
Compliant



Warning:
Terminal block
NOT for
case-to-case
wire connection!

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



Scan the QR code on 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

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.

Note: Revision G: Updated wiring diagrams.

Data sheet - Freedom Line RFL

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Spanish P/N 3002319

Engineering Plan Views

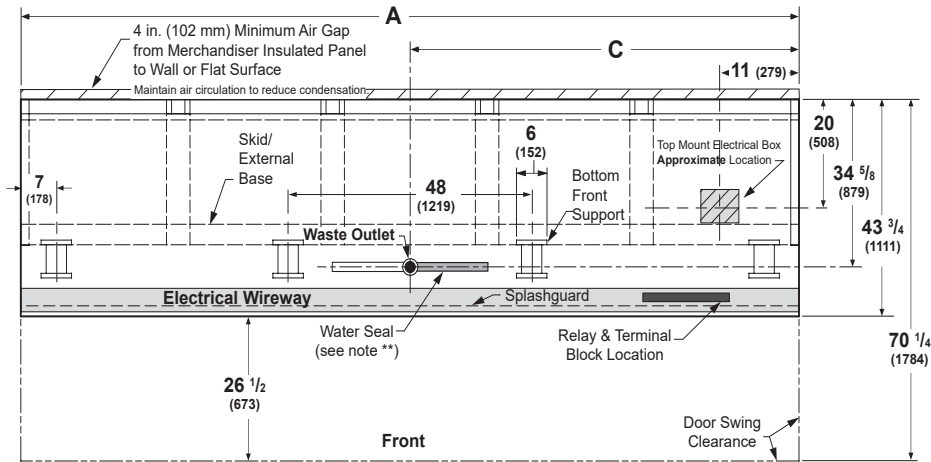
Reach-In
3 & 4 Door

Freedom Line RFL Plan View

PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Dimensions shown as inches and (mm).

Freedom Line — Standard Plan View 4 Door



	2 Dr	3 Dr	4 Dr	5 Dr
General				
(A) Case Length (without ends or partitions)	62 (1575)	92 1/2 (2350)	122 7/8 (3121)	153 3/8 (3896)
**NOTE: Each solid end adds approximately 2 3/8 in (60 mm) to length of line up; each partition add approximately 2 3/4 in (70 mm); case to case joints can add approximately 1/8 in (3 mm) for gasket material.				
Maximum O/S dimension of case back to front <i>(Includes bumper. Add 26 1/2 in. (673 mm) for door swing.)</i>	43 3/4 (1111)	43 3/4 (1111)	43 3/4 (1111)	43 3/4 (1111)
Back of case to rear of splashguard	39 7/8 (1013)	39 7/8 (1013)	39 7/8 (1013)	39 7/8 (1013)
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				
(B) RH end of case to the center of nearest knockout	4 (102)	4 (102)	4 (102)	4 (102)
RH end of case to the center of LH knockout	58 (1473)	88 1/2 (2248)	118 7/8 (3019)	149 3/8 (3794)
Back O/S of case to center of knockout	41 5/8 (1058)	41 5/8 (1058)	41 5/8 (1058)	41 5/8 (1058)
* NOTE: Electrical Field Wiring Connection Point is at terminal.				
Waste Outlet				
(C) Right end of case to 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	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)
Water Seal				
Edge of water seal to center of waste outlet	13 (330)	13 (330)	13 (330)	13 (330)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
** NOTE: Field installed water seal outlets, tees, and connectors are shipped with case				
Refrigeration Outlet				
RH end of case to center of RH refrigeration outlet	5 3/8 (137)	5 3/8 (137)	5 3/8 (137)	5 3/8 (137)
Back O/S of case to center of refrigeration outlet	32 (813)	32 (813)	32 (813)	32 (813)
Outside bottom front supports from end of case	6 3/4 (170)	6 3/4 (170)	6 3/4 (170)	6 3/4 (170)
Center bottom front support from Centerline	24 (610)	24 (610)	24 (610)	24 (610)
<i>Distance between Center and Outside supports will vary</i>				

Freedom Line Reach-in
Top-Mount-Refrigeration Ready
2, 3, 4 & 5 Door Model

Standard Reach-in configuration consists of Innovator I doors, energy efficient fan motors, and LED vertical lighting.



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

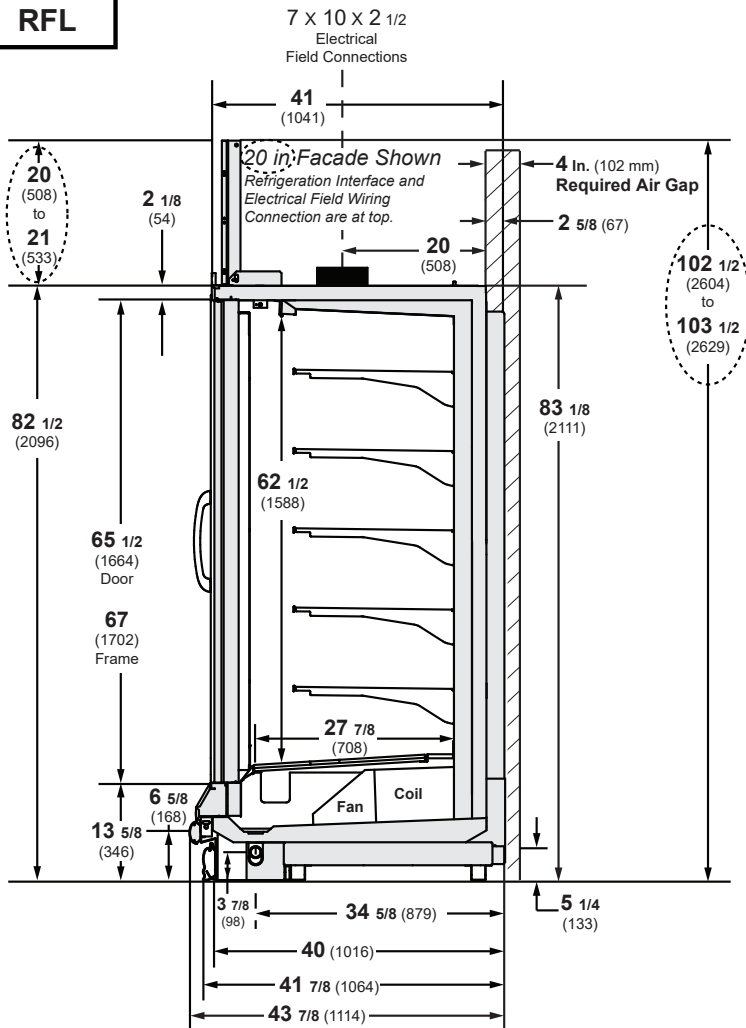
Provide adequate clearance for air circulation at rear to reduce condensation.

Dimensions shown as inches and (mm).

**Freedom
Line
RFL**



Note: Facade is field-installed. Electrical connection box, external supports, door handle and front raceway may be removed to facilitate passage through door way.



Freedom Line RFL
With Innovator Doors or Innovator III Doors
Low Temperature

REFRIGERATION DATA

Note: This data is based on store temperature and humidity that does not exceed 75°F and 55% R.H.

	FF	IC	AHRI Rating*
Discharge Air (°F)	-5	-12	-2
Evaporator (°F)	-11	-19	-7
Unit Sizing (°F)	-14	-22	-10

*With door A/S controller

Btu/hr/Door

	FF	IC	AHRI Rating*
INNOVATOR			
Parallel	955	1065	910
Conventional	970	1085	940
INNOVATOR III			
Parallel	935	1035	
Conventional	955	1055	

§ Average evaporator temperature shown. Use dew point for high glide refrigerants for unit sizing. Care should be taken to use the dew point in PT tables for measuring and adjusting superheat. Adjust evaporator pressure as needed to maintain discharge air temperature shown.

DEFROST DATA

	FF	IC
Frequency (hr)	24	24
Defrost Water (lb/Dr/day)	1.2	1.2

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

ELECTRIC	FF	IC
Temp Term (°F)	48°	48°
Failsafe (minutes)	45	45

GAS	FF	IC
OFFTIME	Not Available	Not Recommended

Refrigeration data continued on page 4.

NSF Certification

This merchandiser model is manufactured to meet NSF/ANSI (National Sanitation Foundation) Standard #7 requirements for construction, materials & cleanability.

Freedom Line RFL

With Innovator Doors or Innovator III Doors
Low Temperature

REFRIGERATION DATA CONTINUED

CONVENTIONAL CONTROLS

	Cut In	Cut Out
HPC (psig)	320	395
LPC (psig)	15	5

Working Charge¹

Total working charge with recommended Hussmann Air-Cooled condensing unit installed:

1 dr	2 lbs, 5 oz	/	1.04 kg
2 dr	6 lbs	/	2.72 kg
3 dr	6 lbs, 8 oz	/	2.95 kg
4 dr	6 lbs, 14 oz	/	3.13 kg
5 dr	7 lbs, 6 oz	/	3.36 kg

Total working charge with recommended HMDSLMT Water-Cooled condensing unit installed:

1 dr	1 lbs, 14 oz	/	0.86 kg
2 dr	2 lbs, 6 oz	/	1.09 kg
3 dr	3 lbs, 8 oz	/	1.59 kg
4 dr	4 lbs	/	1.81 kg
5 dr	6 lbs, 10 oz	/	2.99 kg

¹ The total refrigerant charge includes the case and condensing unit. Both ship pre-charged with a portion of the total refrigerant.

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

Freedom Line RFL
 With Innovator Doors or Innovator III Doors
 Low Temperature

Electrical Data

	2Dr	3Dr	4Dr	5Dr				
Number of Fans—12W	2	3	4	5				
	Amperes				Watts			
Merchandiser	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr
Energy Efficient Evaporator Fan								
120V 50/60Hz Innovator	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	0.9	1.3	1.7	2.2	104	156	208	260
Frame Anti-sweat Heaters (on fan circuit)								
120V 50/60Hz Innovator	0.78	1.18	1.57	1.97	94	141	188	236
Heated Condensate Pan	5.0	5.0	5.0	5.0	600	600	600	600
Condensate Pump	1.9	1.9	1.9	1.9	87	87	87	87
Defrost								
Drain Heaters (120V)	0.63	1.25	2.00	2.57	75	150	240	300
208V 1Ø Electric Defrost	6.72	10.08	13.46	16.82	1400	2100	2800	3500
Maximum Overcurrent Protection Device (MOPD)	20	20	20	20				

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 Vertical LED Lighting	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr
120V	0.31	0.46	0.62	0.77	37.1	55.6	74.2	92.7

† Notes:

1. Single point electrical input for the RFL Freedom case requires a 208/230V connection at the top of the case for the case components, defrost heater, and optional field-installed condensing unit.
2. For total electrical circuit requirements refer to the condensing unit data sheet and include any optional components.

A qualified electrician should perform all wiring in accordance with the NEC code and/or all local codes. Wire sizing must take into account the total distance from the electrical panel to the Freedom case.

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Product Data

<i>Recommended Usable Cube</i> ² (Cu Ft/Dr)	25.14 ft ³ /Dr (0.71 m ³ /Dr)
<i>AHRI Total Display Area</i> ¹ (Sq Ft/Dr)	13.31 ft ² /Dr (1.24 m ² /Dr)
<i>Shelf Area</i> ² (Sq Ft/Dr)	29.32 ft ² /Dr (2.72 m ² /Dr)

¹ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

² Shelf Surface Area and Recommended Usable Cube are composed of bottom deck plus standard shelf complement, as shown in the Hussmann *Product Reference Guide*. The standard shelf complement for this model is (5) rows of 26-inch shelves.

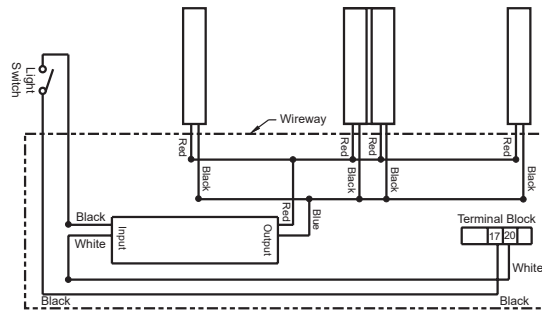
ESTIMATED SHIPPING WEIGHT ⁴

	<i>2 Dr</i>	<i>3 Dr</i>	<i>4 Dr</i>	<i>5 Dr</i>	<i>Solid End (each)</i>
Standard Freedom Line Merchandiser (18-Inch Facade, no Arch)					
lb (kg)	997 (453)	1295 (589)	1595 (725)	1874 (852)	55 (25)

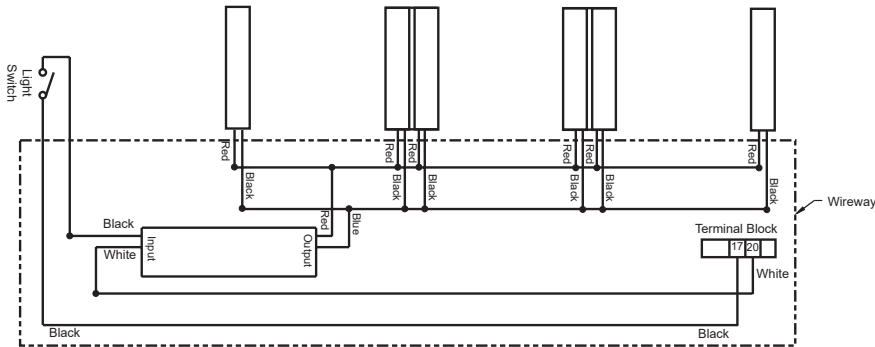
⁴ Actual weights will vary according to optional kits included.

Standard Vertical Lighting LED Fixtures

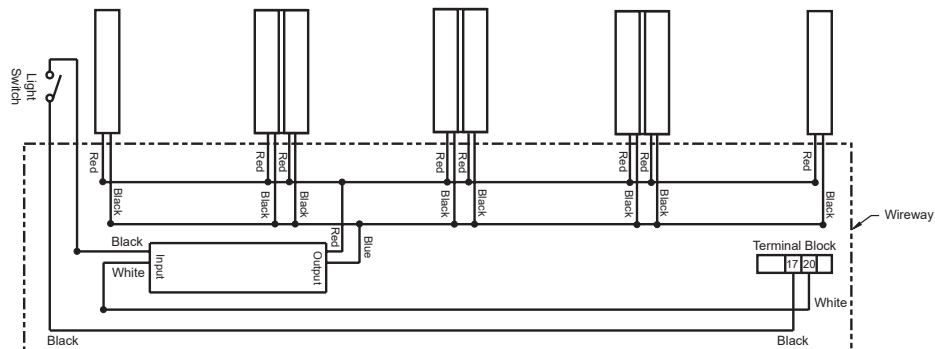
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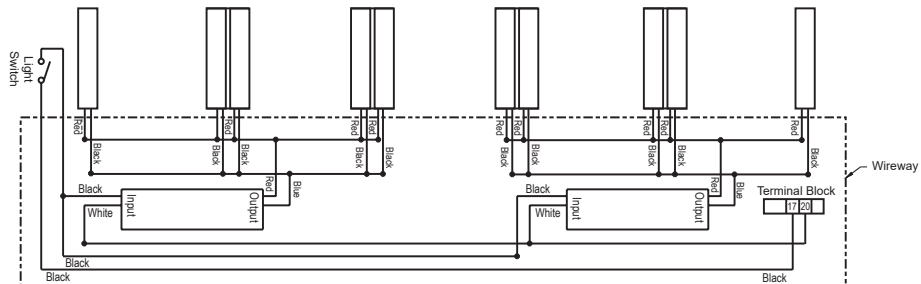
2 Door LED Light Wiring Diagram



3 Door LED Light Wiring Diagram



4 Door LED Light Wiring Diagram



5 Door LED Light Wiring Diagram

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 *mm* = Case Ground

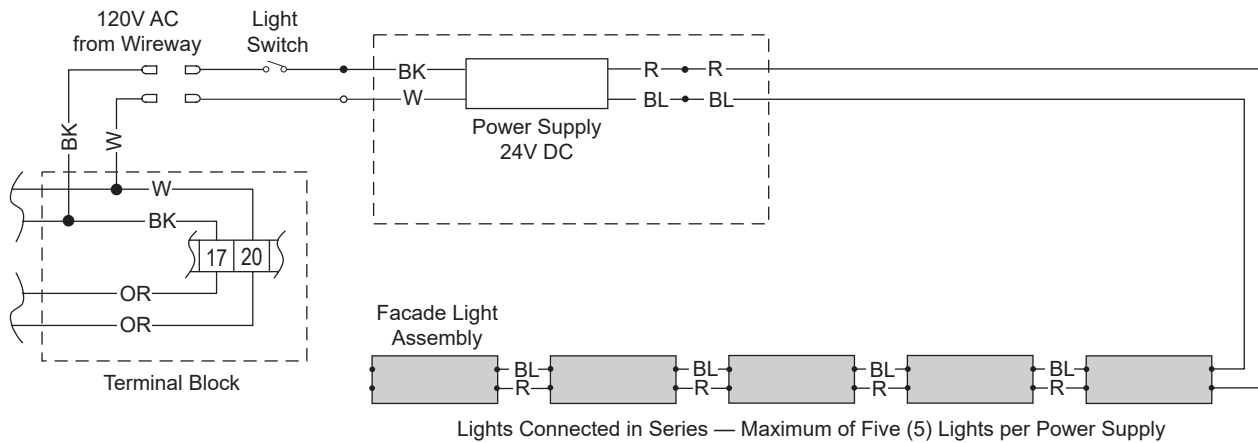
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R = Red P = Purple 2P = Purple (2 Bands)
DB = Dark Blue BK = Black BL = Blue
BR = Brown Y = Yellow OR = Orange W = White

THESE ARE MARKER COLORS (WIRE MAY VARY).

Optional External Facade LED Wiring



WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

● = 120V Power

○ = 120V Neutral

⊥ = Field Ground

≡ = Case Ground