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Data sheet-LifeLine RFMN

Note: Revision R: added 1 door data and updated wiring diagrams.

Reach-In 1, 2, 3, 4 & 5 Door

# Freedom Line RFLN - RFMN Plan View

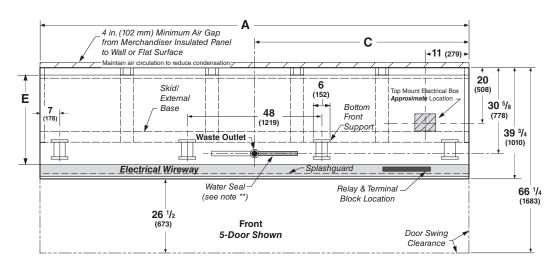
PHYSICAL DATA	
$1^{\prime}$ $\mathbf{D}^{\prime}$ $\mathbf{D}^{\prime}$ $(^{\prime})$	

Merchandiser Drip Pipe (in.) 1 <sup>1</sup>/4 Merchandiser Liquid Line (in.) <sup>3</sup>/8 Merchandiser Suction Line (in.) <sup>5</sup>/8

#### Dimensions shown as inches and (mm).

Freedom Line — Standard Narrow Footprint Plan View

2, 3, 4 & 5 Door



General	1 Dr	2 Dr	3 Dr	4 Dr	5 Dr
(A) Merchandiser Length	31 1/2 (800)	62 (1575)	92 1/2 (2350)	122 7/8 (3121)	153 3/8 (3896)
<b>**NOTE:</b> Each solid end adds approximately 2 3/8 in (60 mm) to length		i í	\ ` ´	· · · · · · · · · · · · · · · · · · ·	100 10 (0000)
case to case joints can add approximately $\frac{1}{8}$ in (3 mm) for gasket mate	1, 1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Maximum O/S dimension of merchandiser back to front		39 3/4 (1010)	39 3/4 (1010)	39 3/4 (1010)	39 3/4 (1010)
*** Add 26 <sup>1</sup> /2 in. (673 mm) for door swing.					
Back of merchandiser to rear of splashguard	35 7/8 (911)	35 7/8 (911)	35 7/8 (911)	35 7/8 (911)	35 7/8 (911)
Width of Skid rail	3 3/4 (95)	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)	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)	3 1/8 (79)
<b>Electrical Service</b> (dimensions are approximate)					
(B) RH end of merchandiser to center of Electrical Service A	rea 11 (279)	11 (279)	11 (279)	11 (279)	11 (279)
Back O/S of merchandiser to center of Electrical Service.	× /	20 (508)	20 (508)	20 (508)	20 (508)
* NOTE: Electrical Field Wiring Connection Point is at top of merchand	iser.			l ì í	
Waste Outlet					
(C) Right end of merchandiser to center of waste outlet	15 3/4 (400)	23 7/8 (606)	54 1/4 (1378)	46 1/4 (1175)	76 5/8 (1946)
Water Seal	, í				
Edge of water seal to center of waste outlet	13 (330)	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)	1 1/4 (32)
** NOTE: Field installed water seal outlets, tees, and connectors are ship	ped with merchandise	er.			
Refrigeration Outlet					
(D) RH end of merchandiser to center of refrigeration interfa	ce 5 3/8 (136)	5 3/8 (136)	5 3/8 (136)	5 3/8 (136)	5 3/8 (136)
Back O/S of merchandiser to center of refrigeration inter-	face 49 5/8 (1260)	49 5/8 (1260)	49 5/8 (1260)	49 5/8 (1260)	49 5/8 (1260)
* NOTE: Refrigeration interface is at top of merchandiser.					
Outside bottom front supports from end of merchandiser	7 (178)	7 (178)	7 (178)	7 (178)	7 (178)
Center bottom front support from Centerline	24 (610)	24 (610)	24 (610)	24 (610)	24 (610)
Distance between Center and Outside supports will vary					
(E) Depth when disassembled for door entry (optional)	35 1/2 (902)	35 1/2 (902)	35 1/2 (902)	35 1/2 (902)	35 1/2 (902)

# **Freedom Line** Narrow Footprint Reach-in Top-Mount-Refrigeration Ready 1, 2, 3, 4 and 5 Door Models

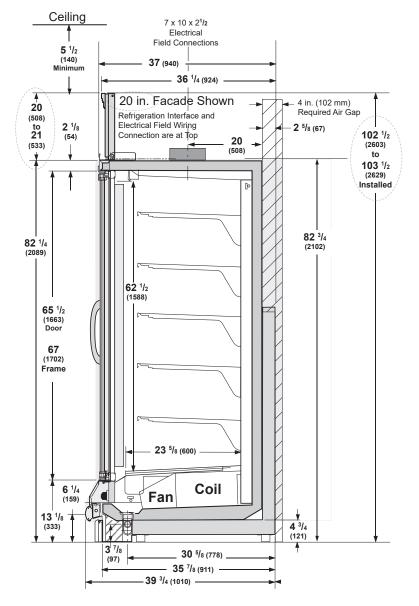
# Standard Reach-in configuration consists of Innovator I doors, energy efficient fan motors, and LED vertical lighting.

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.

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

Dimensions shown as inches and (mm).

Note: An optional Louvered Facade Panel kit is available that will allow for the top spacing minimum clearance of 3 inches (76 mm). 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 **RFMN**

With Innovator Doors

Medium Temperature

#### **REFRIGERATION DATA**

**Note:** This data is based on store temperature and humidity levels that do not exceed NSF guidelines.

MEDI	AHRI Rating	
Discharge Air °F	32	36
Evaporator °F	27	32
Unit Sizing °F	25	30

# Btu/hr/Door

NSF TYPE I NSF TYPE II AHRI RATING

		1.4
Temp (°F) /R.H.75°/ 55%	80°/ 55%	
Innovator		

Parallel	480	505	470				
Conventional	500	525	490				
§ Average evaporat	or tempe	erature 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**

Frequency (hr)	24
Defrost Water (lb/Dr/day)	0.36
(± 15% based on case configur	ration and product
loading.)	

0	) <sub>F</sub>	7	71	ΓΙ	M	E		
-					_			

Temp Term (°F)	48
Failsafe (minutes)	40

#### CONVENTIONAL CONTROLS

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

Refrigeration data continued on page 5.

#### **NSF** Certification

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

### **REFRIGERATION DATA (CONTINUED)**

## WORKING REFRIGERANT CHARGE <sup>1</sup>

**Air-Cooled** 

Working Refrigerant Charge with recommended Condensing Unit installed:

1 Dr	12 oz	/	0.34 kg
2 Dr	2. lb, 8 oz	/	1.13 kg
3 Dr	3.0 lb	/	1.36 kg
4 Dr	3 lb, 5 oz	/	1.50 kg
5 Dr	3 lb, 8 oz	/	1.59 kg

#### Water-Cooled

#### Working Refrigerant Charge with recommended HMDSMT Condensing Unit installed:

2 Dr	2.0 lb	/	0.91 kg
3 Dr	3.0 lb	/	1.36 kg
4 Dr	3 lb, 14 oz	/	1.77 kg
5 Dr	4 lb, 6 oz	/	2.00 kg

<sup>1</sup> The total refrigerant charge includes the case and condensing unit. Both ship precharged 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 **RFMN** 

With Innovator Doors

**Medium Temperature** 

### **Electrical Data**

	1Dr	2Dr	3Dr	4Dr	5Dr					
Number of Fans—12W	1	2	3	4	5					
			Amp			10		Watts		
Merchandiser	1Dr	2Dr	3Dr	4Dr	5Dr	1Dr	2Dr	3Dr	4Dr	5Dr
Energy Efficient Evaporator Fan										
	0.11	0.00	0.00	1.00	1 50	12	26	<b>5</b> 4	70	0.0
120V 50/60Hz Innovator	0.11	0.60	0.90	1.20	1.50	13	36	54	72	90
Dear Anti quest Hesters (on fan singuit)										
Door Anti-sweat Heaters (on fan circuit)										
120V 50/60Hz Innovator			N/A							
Frame Anti-sweat Heaters (on fan circuit)										
120V 50/60Hz Innovator	0.2	0.78	1.18	1.57	1.97	23.9	94	141	188	236
Heated Condensate Pan	5.0	5.0	5.0	5.0	5.0	600	600	600	600	600
Condensate Pump	0.7	1.9	1.9	1.9	1.9	84	87	87	87	87
Defrost										
Drain Heaters (120V)			N/A							
120 V Circuit										
(Fans, anti-sweat heaters, drain pan heater, cond	lensate par	n heater, co	ndensate p	oump, and s	standard 2	LEDs)				
With Innovator Doors (standard)	14.6	8.0	8.8	9.6	10.5					
Maximum Overcurrent										
Protection Device (MOPD)	20	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	1Dr	2Dr	3Dr	4Dr	5Dr	1Dr	2Dr	3Dr	4Dr	5Dr
120V	0.18	0.31	0.46	0.62	0.77	18.5	37.1	55.6	74.2	92.7
220V Export	0.19	0.19	0.27	0.35	0.43	42	42	60	78	96

† Notes:

1. Single point electrical input for the RFLN Freedom case requires a 208/230V 4 wire electrical connection at the top of the case for the case components, defrost heater, and optional field-installed condensing unit. Defrost heater and condensing unit circuits are non-concurrent loads. To determine the circuit size, use the larger of the two loads - do not add the two loads together.

2. For total electrical circuit requirements refer to the condensing unit datasheet and include all 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.

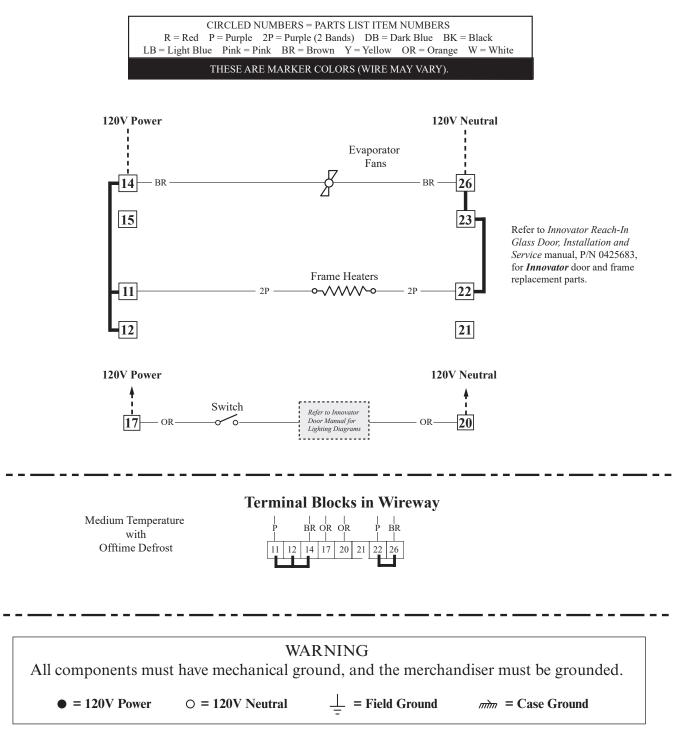
#### **Product Data**

AHRI Total Display Area<sup>1</sup> (Sq FtlDr) Recommended Usable Cube<sup>2</sup> (Cu FtlDr) Shelf Area<sup>2</sup> (Sq FtlDr) 13.04 ft<sup>2</sup> /Dr (1.21 m<sup>2</sup>/Dr) 24.48 ft<sup>3</sup> /Dr (0.69 m<sup>3</sup>/Dr) 28.50 ft<sup>2</sup> /Dr (2.65 m<sup>2</sup>/Dr)

Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]
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 24-inch shelves.

ESTIMATED SHIPPING WEIGHT 4									
	1 Dr	2 Dr	3 Dr	4 Dr	5 Dr	Solid End (each)			
Standard F	reedom Line Me	erchandiser (18-Inch	Facade, no Arch)						
lb (kg)	617 (80)	1005 (456)	1262 (572)	1688 (766)	2070 (939)	74 (34)			
<sup>4</sup> Actual we	eights will vary ac	cording to optional	kits included.						
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# Fan and Heater Circuits – Offtime Defrost (Standard) Medium Temperature



NOTE: For optional field install condensing unit wiring diagram, refer to condensing unit data sheet.

