

Portion of parts removed for clarity.

4 door merchandiser shown.

NSF Certification

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

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Data sheet-Reach-in RFLNI

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.

Reach-in RFLNI
Frozen Food & Ice Cream

Refrigeration Data ¹

RFLNI		Optimal Shelf Life		AHRI Rating ³
		Frozen Food	Ice Cream	
Application				
Temperatures	Discharge Air °F (°C)	-5 (-20.55)	-12 (-24.44)	-2 (-18.9)
	Average Evaporator °F (°C) ²	-9 (-22.77)	-17 (-27.22)	-7 (-21.7)
	Unit Sizing °F (°C)	-12 (-24.44)	-20 (-28.88)	-10 (-23.3)
Innovator I	Parallel Btu/hr/ft (Watts/m)	865 (830)	970 (931)	840 (806)
	Conventional Btu/hr/ft (Watts/m)	880 (845)	990 (950)	855 (821)
Innovator II	Parallel Btu/hr/ft (Watts/m)	815 (782)	940 (902)	N/A
	Conventional Btu/hr/ft (Watts/m)	830 (797)	960 (922)	N/A

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.
- 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.
- With a/s controller.

Defrost Data

Frequency (hours between defrost) 24

Defrost Water ³ 1.2 lb/ft/day
(1.8 kg/m)

³ (± 15% based on case configuration and product loading).

OFFTIME

Time (minutes) Not Recommended

ELECTRIC

Temp Term (°F) 48

Failsafe (minutes) 45

GAS

Duration (minutes) 20

Total Working Refrigerant Charge ⁴

Air-Cooled

With Recommended Condensing Unit Installed

4 Door 6 lbs, 14 oz / 3.13 kg

5 Door 7 lbs, 6 oz / 3.36 kg

Water-Cooled

With Recommended HMDSLMT Condensing Unit Installed

4 Door 4 lbs / 1.81 kg

5 Door 6 lbs, 10 oz / 2.99 kg

⁴ The Total Refrigerant Charge includes the case and condensing unit. Both ship pre-charged with a portion of the total refrigerant.

Conventional Controls

Low Pressure Backup Control CI/CO

Frozen Food -18°F /-34°F
-27.77°C / -36.66°C

Ice Cream -26°F /-45°F
-32.22°C / -42.77°C

Product Data

Recommended Usable Cube ⁶ (Cu Ft/Ft) 22.80 ft³/ft (0.65 m³/m)

AHRI Total Display Area ⁵ (Sq Ft/Ft) 13.04 ft²/ft (1.21 m²/m)

Shelf Area ⁶ (Sq Ft/Ft) 28.50 ft²/ft 2.65 m²/m)

⁵ Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

⁶ Shelf Surface Area and Recommended Usable Cube is composed of bottom deck plus standard shelf complement for this model: (5 per door) 22-in. shelves, distributed vertically.

Reach-in Freedom, Low Temperature, Narrow Island
for 2, 3, 4 and 5 door models, Innovator Doors
Standard

Reach-in **RFLNI**
Frozen Food & Ice Cream

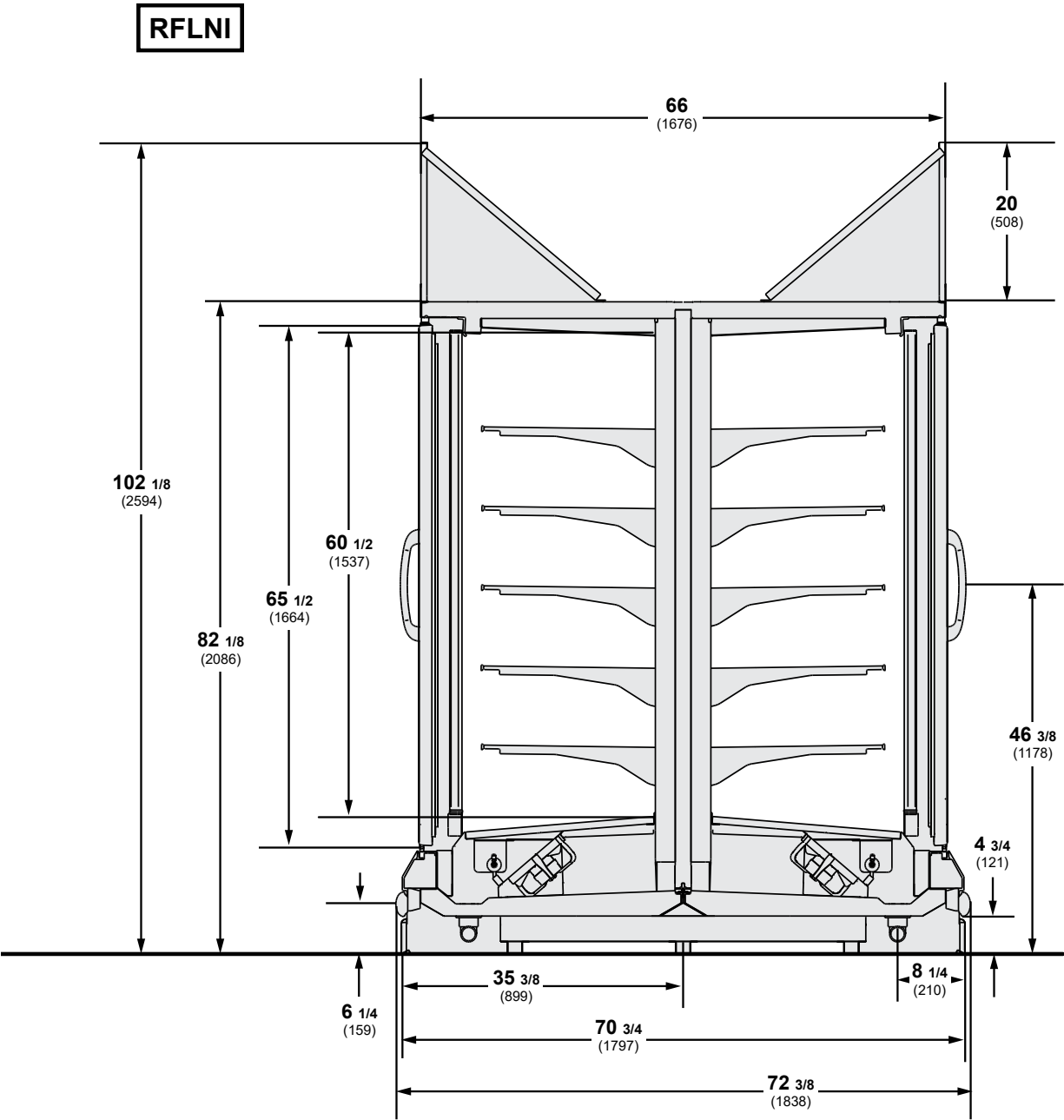
DOE 2017
Energy Efficiency
Compliant

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

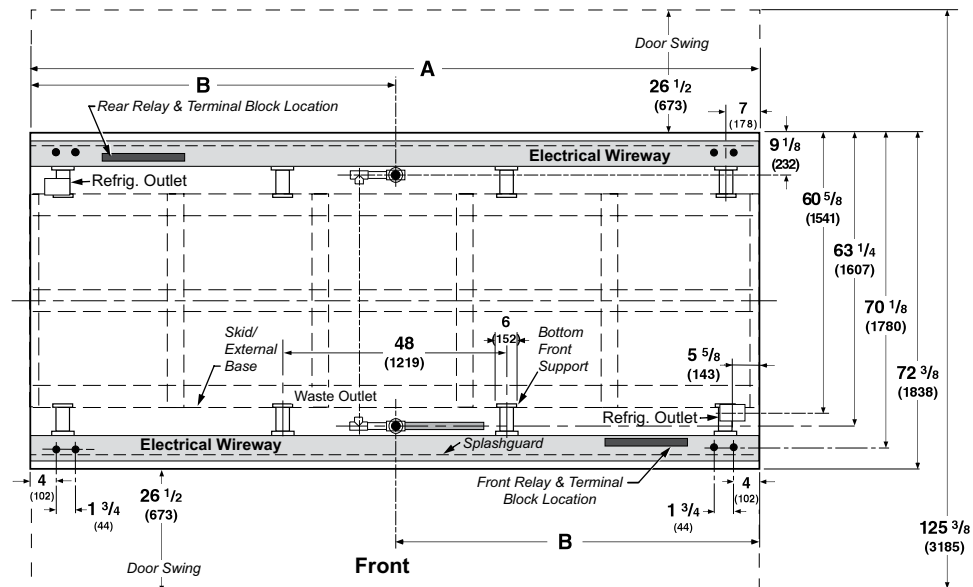
Shelf complement shown as tested:

5 row of 22-in shelves per door
spaced equally between bottom
display pan and interior top panel.

Dimensions shown as in. and (mm).



Dimensions shown as inches and (mm).



(5 Door Model shown above)

	4 Dr	5 Dr
General		
(A) Case Length (without ends or partitions) (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.)	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.)	72 3/8 (1837)	72 3/8 (1837)
Back of case to rear of splashguard	68 1/2 (1740)	68 1/2 (1740)
Width of Skidrail	3 3/4 (95)	3 3/4 (95)
Width of bottom front support	6 (152)	6 (152)
Stub-up area between front skidrail and splashguard	9 (229)	9 (229)
Electrical Service (Field Electrical Wiring Connection)		
RH End of case to center of Electrical Wiring Connection (top of case)	26 1/2 (673)	26 1/2 (673)
Back O/S of case to center of Electrical Wiring Connection *NOTE: Electrical Wiring Connection point is at terminal.	47 1/2 (1207)	47 1/2 (1207)
Waste Outlets (with required drain extension)		
(B) RH End of case to the center of waste outlet	46 1/4 (1175)	76 5/8 (1946)
Back O/S of case to center of waste outlet(s)	63 1/4 (1607)	63 1/4 (1607)
Schedule 40 PVC drip pipe	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)

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

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ELECTRICAL DATA IS PER SIDE — TWO CIRCUITS REQUIRED PER CASE.

Electrical Data

Number of Fans—12W	4 Dr	5 Dr		
	4	5		
Merchandiser	Amperes		Watts	
	4Dr	5Dr	4 Dr	5 Dr
Energy Efficient Evaporator Fan				
120V 50/60Hz Innovator	1.20	1.50	72	90
Door Anti-sweat Heaters (on fan circuit)				
120V 50/60Hz Innovator	3.00	3.80	364	455
120V 50/60Hz Innovator III	1.7	2.2	208	260
Frame Anti-sweat Heaters (on fan circuit)				
120V 50/60Hz Innovator	1.57	1.97	188	236
Heated Condensate Pan	5.0	5.0	600	600
Condensate Pump	1.9	1.9	87	87
Defrost				
Drain Heaters (120V)	2.00	2.57	240	300
208V 1Ø Electric Defrost	13.46	16.82	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

Standard LED Lighting	Amperes		Watts	
	4 Dr	5 Dr	4 Dr	5 Dr
120V	0.62	0.77	74.2	92.7

† Notes:

1. Single Point electrical input for the RFLNI Freedom case requires one 208/230V 4 wire connection at the top of case per side for the case components, defrost, and optional field installed condensing unit.
2. For total electrical circuit requirements with single point wiring, refer to the condensing unit datasheet (3049062), and include any optional components.

NOTE: Case may be equipped with a controller for temperature and defrost control. Refer to the wiring diagram supplied with the case.

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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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	4 Dr	5 Dr	Solid End (each)
lb (kg)	3160 (1433)	3904 (1771)	110 (50)

† 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.

Maximum number of Shelves: 5 per door

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

Electric Defrost Sequence - Low Temp

Wiring diagram is per side -
two circuits required per case.

Reach-in **RFLNI**
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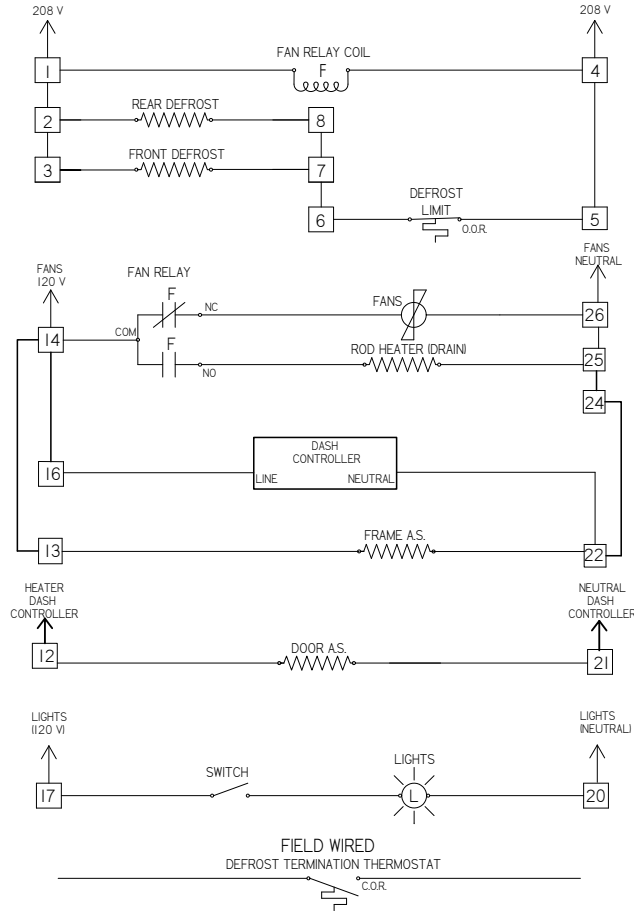
R = Red P = Purple 2P = Purple (2 Bands) DB = Dark Blue BK = Black
LB = Light Blue BR = Brown Y = Yellow OR = Orange W = White

THESE ARE MARKER COLORS (WIRE MAY VARY.)

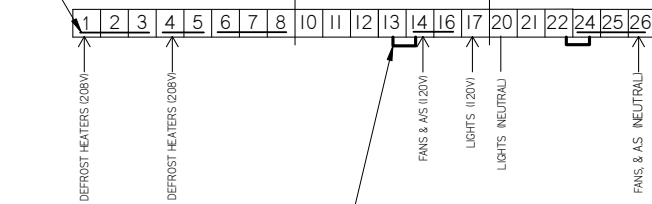
CAUTION: When multiplexing merchandisers equipped with defrost heaters, if branch circuit overcurrent protection is larger than the individual merchandiser's defrost circuit load, then additional supplemental overcurrent protection may be required per NEC Articles 210 and 240.

Refer to *Innovator Reach-In Glass Door, Installation and Service manual, P/N 0425683*, for Innovator door and frame replacement parts.

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THE HEAVY LINES DRAWN INSIDE THE TERMINAL BLOCKS REPRESENT PERMANENT INTERNAL JUMPERS.



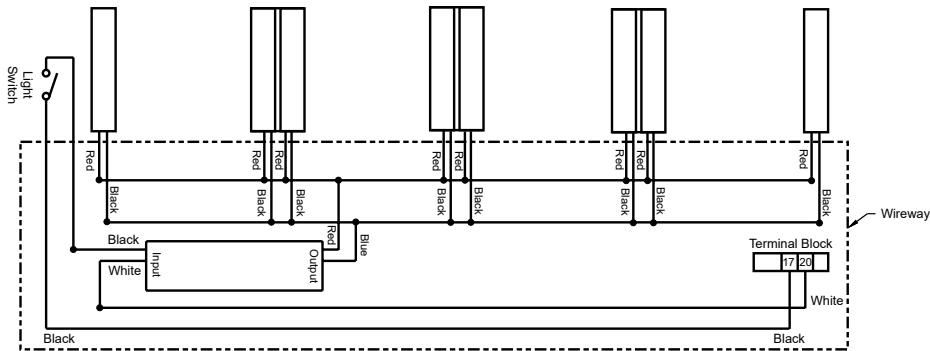
THE HEAVY LINES DRAWN OUTSIDE THE TERMINAL BLOCKS REPRESENT REMOVABLE EXTERNAL JUMPERS.

Electric Defrost Sequence - Low Temperature

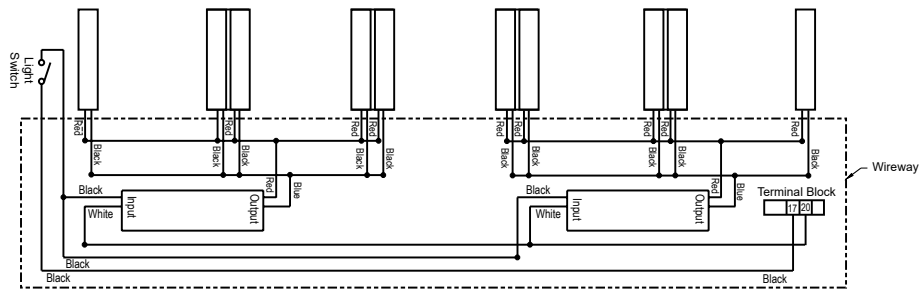
1. Power from the defrost relay energizes Defrost Heaters and 208V Evaporator Fan Relay Coil (5). Relay Contacts open the fan circuit and energizes the Drain Pan Heater.
2. When Defrost Termination Thermostat ends defrost period, the defrost relay opens the Defrost Heater and Evaporator Fan Relay Coil Circuits. The Drain Pan Heater goes off and fans are on.

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Standard LED Lighting
LED Fixtures



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

Estimating Refrigeration and Electrical Load (for comparison purposes only)

Case Btu

To determine Btu for a case, refer to the performance data chart on page 2. Select lit or unlit shelves, then select the type of remote refrigeration system (parallel or conventional), which will give Btu/hr/ft. Multiply this number by the length of the case to determine Btu per hour.

Case Electrical

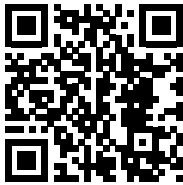
Refer to store legend to determine number of circuits. Lighting should be specified in store legend.

Fan electrical load for a case is computed by selecting the case length and fan voltage on page 5. For example, a 12 ft case uses 3 fans. The store legend specifies fans on a 230V circuit. In this instance, fans use 0.50 Amps and the MCA is 0.70. When applied, ambient fans, anti-sweat heaters, controllers, etc. must be included in the MCA. Include lights in the MCA if lights are on same circuit.

Lights may be on a separate circuit. To estimate lighting load: select case length (12 ft), canopy lighting [standard or optional] (here 0.70 for standard), and shelf or rail lighting [maximum for which case is wired] (1.48 for six shelves); then add together [0.48 + 1.48 = 1.96 amps for 120V] (for 230V, multiply 1.96 * 0.52 = 1.02).

Line Sizing — Refer to store legend.

Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.



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: April 2020: Original Issue.