HUSSMANN®

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Technical Datasheet

FN

Open Low and Medium Temperature Narrow Island Display Case

Applications
Medium Temp, Frozen Foods and Ice Cream

P/N 0465898 **Rev** K
March 2026

Models Covered
FN4, FN6, FN8, FN12

Refrigerant(s)
A2L (R-454A or R-454C)
R-744 (CO2)
Glycol
HFC/HCFC/HFO

Certifications

c UL us LISTED

NSF/Sanitation Compliance
This merchandiser model is manufactured to meet NSF/ANSI Standard 7 requirements for construction, materials, and cleanability.

Table of Contents

⚠ *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.

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Spanish P/N 0538913
French P/N 3249332

WARNING:

Read the entire installation, operation, and service manual before installing, servicing, or using this equipment in any way. Refer to the manual for detailed information about minimum room floor area and installation, maintenance, and service processes.

A2L Equipped Models

If the information in the instructions are not followed exactly, a fire or explosion may result, causing property damage, personal injury, or death. Installation and service must be performed by a qualified installer or service agency.

Mildly flammable A2L refrigerant used. Units that are configured to use A2L refrigerants require special attention. No open flames, cigarettes, or other possible sources of ignition should be used inside or in the vicinity of units containing flammable refrigerants.

If a refrigerant leak is present or even suspected, do not allow untrained personnel to attempt to find the cause. No open flames, cigarettes, or other possible sources of ignition should be used inside or in the vicinity of the unit(s). Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.

Information on pre-installed A2L refrigerant sensors and detectors, safety shut-off and check valves, relay information, and additional parts replacement information can be found in the associated installation, operation, and service manual. All manual information must be reviewed in full prior to performing any work.

R-744 (CO_2) Equipped Models

This equipment uses carbon dioxide (R-744 [CO_2]) refrigerant for heat transfer. The system is sealed and pressure-tested with ASME-certified vessels, but leaks can occur in the event of a system failure. A CO_2 leak in an unventilated space can pose serious hazards. Therefore, units must be installed in areas with adequate ventilation and in accordance with local safety codes.

A leak of R-744 could result in a concentration exceeding the practical limit in an enclosed, occupied space such as a cold room. Precautions must be taken to prevent asphyxiation. These include the use of permanent leak detection, which activates an alarm in the event of a leak.

Observe all warnings and labels on the unit being installed or serviced such as the one below indicating high pressure.

All refrigeration servicing must be completed by a certified refrigeration installation professional, and all tubing and components MUST be qualified for CO_2 applications, with a minimum design pressure of 1,305 psig (90 bar).

Failure to abide by all warnings contained within the associated manual could result in an explosion, death, injury, and property damage.

Model Nomenclature

“FN” is followed by a number representing the length of the case in feet (i.e., a 12-foot model would be “FN12”).

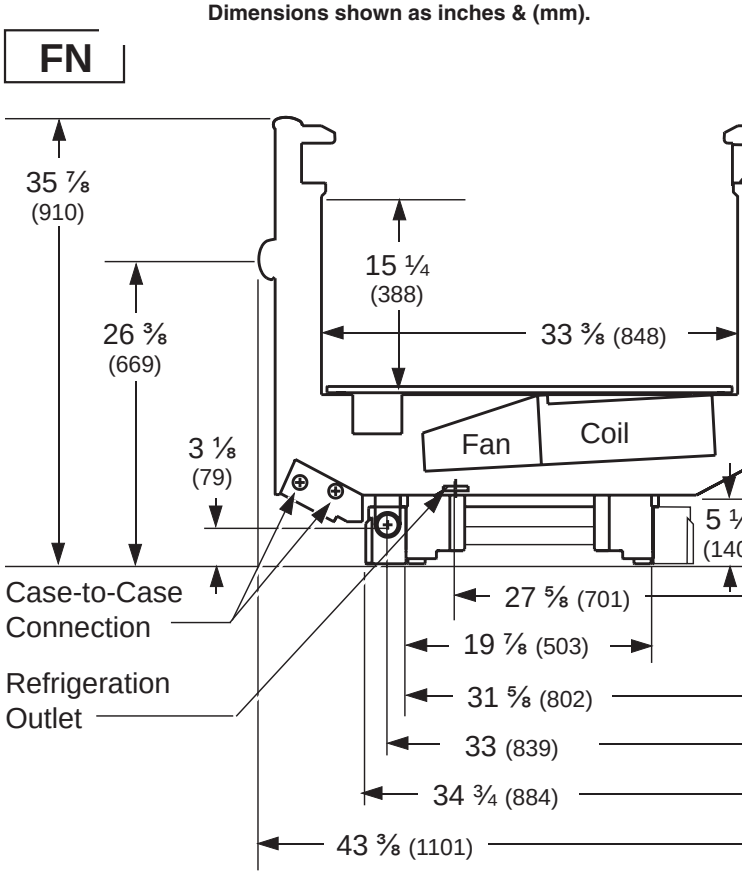
Ordering Information

All options must be selected at time of ordering. Some lengths and/or applications require optional fan motor kits applied by the Hussmann Product Configurator (HPC).

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.

Dimensions shown as inches & (mm).



REFRIGERATION DATA§

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

	MED	FF	IC
Discharge Air (°F)	+24	–12	–22
Evaporator (°F)	+19	–20	–30
Unit Sizing (°F)	+17	–23	–33

§ 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.

Btu/hr/ft	**Med**	**FF**	**IC**
Parallel	271	381	391
Conventional	281	396	406

DEFROST DATA

	MED	FF	IC
Frequency (hr)	24	24	24
Defrost Water (lb/ft/day)	0.8	0.75	0.6

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

ELECTRIC	**MED**	**FF**	**IC**
Temp Term (°F)	48	48	48
Failsafe (minutes)	60	60	60

GAS			
Duration (minutes)	NA	15	18

OFFTIME Not Recommended

Standard Defrost Thermostat
Close on rise: close 48°F — open 33°F

CONVENTIONAL CONTROLS

Low Pressure Backup Control — CI/CO *

MED	+12°F / +2°F
FF	–17°F / –29°F
IC	–27°F / –39°F

Indoor Unit Only, Pressure Defrost Termination*
Not Recommended

*Use a Temperature Pressure Chart to determine PSIG conversions.

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

Refrigerant Data

Approximate HFC/HCFC/HFO Refrigerant Charge[*]

Case	Estimated Charge
FN4	16 oz (454 g)
FN6	24 oz (680 g)
FN8	32 oz (907 g)
FN12	48 oz (1,361 g)

A2L Refrigerant Charge

Model	Minimum Room Floor Area ft^2 (m^2)	Estimated Refrigerant Charge[K] — lb (g)	
		Operating Charge	
		R-454A	R-454C
FN4	102 (9.5)	not available	not available
FN6	102 (9.5)	1.9 (856)	1.9 (856)
FN8	213 (19.8)	2.4 (1,108)	2.5 (1,121)
FN12	213 (19.8)	3.7 (1,695)	3.8 (1,715)

R-744 (CO_2) Pressure Rating

Case Configuration	Pressure Rating
standard pressure CO_2	652 psi (45 bar)
high pressure CO_2	1,305 psi (90 bar)

Glycol Heat Transfer Fluid Data (Medium Temp Models)

Model	Conventional/ Load BTU/h/ft (W/m)	Discharge Air Temperature ° F (° C)	Coil Inlet Temperature ° F (° C)	Coil Temp. Rise ° F (° C)	Average Coil Temperature ° F (° C)	Conventional Flow Rate GPM (LPM)	Pressure Drop PSI (bar)
FN4	281 (270)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	N/A	N/A	N/A	N/A
			20 (-6.7)	4 (-15.6)	22 (-5.6)	N/A	N/A
FN6	281 (270)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	N/A	N/A	N/A	N/A
			20 (-6.7)	4 (-15.6)	22 (-5.6)	N/A	N/A
FN8	290 (279)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	3 (-16.1)	26.5 (-3.1)	1.7 (4.5)	4.4 (0.22)
			20 (-6.7)	6 (-14.4)	23 (-5.0)	0.8 (2.3)	2.3 (0.12)
FN12	290 (279)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	3.5 (-15.8)	26.8 (-2.9)	2.1 (7.2)	8.6 (0.51)
			20 (-6.7)	6 (-14.4)	23 (-5.0)	0.8 (3.4)	2.3 (0.28)

Model	Parallel Load BTU/h/ft (W/m)	Discharge Air Temperature ° F (° C)	Coil Inlet Temperature ° F (° C)	Coil Temp. Rise ° F (° C)	Average Coil Temperature ° F (° C)	Parallel Flow Rate GPM (LPM)	Pressure Drop PSI (bar)
FN4	280 (269)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	N/A	N/A	N/A	N/A
			20 (-6.7)	6 (-14.4)	23 (-5.0)	0.4	0.9
FN6	280 (269)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	N/A	N/A	N/A	N/A
			20 (-6.7)	6 (-14.4)	23 (-5.0)	0.6	3.4
FN8	280 (269)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	3 (-15.8)	26.5 (-3.1)	1.7 (6.4)	4.4 (0.3)
			20 (-6.7)	6 (-14.4)	23 (-5.0)	0.8 (2.3)	2.5 (0.16)
FN12	280 (269)	25 / 28 (-3.9 / -2.2)	25 (-3.9)	3.5 (-15.8)	26.8 (-3.1)	2.1 (7.2)	8.6 (1.0)
			20 (-6.7)	6 (-14.4)	23 (-5.0)	1.2 (3.4)	5.5 (0.30)

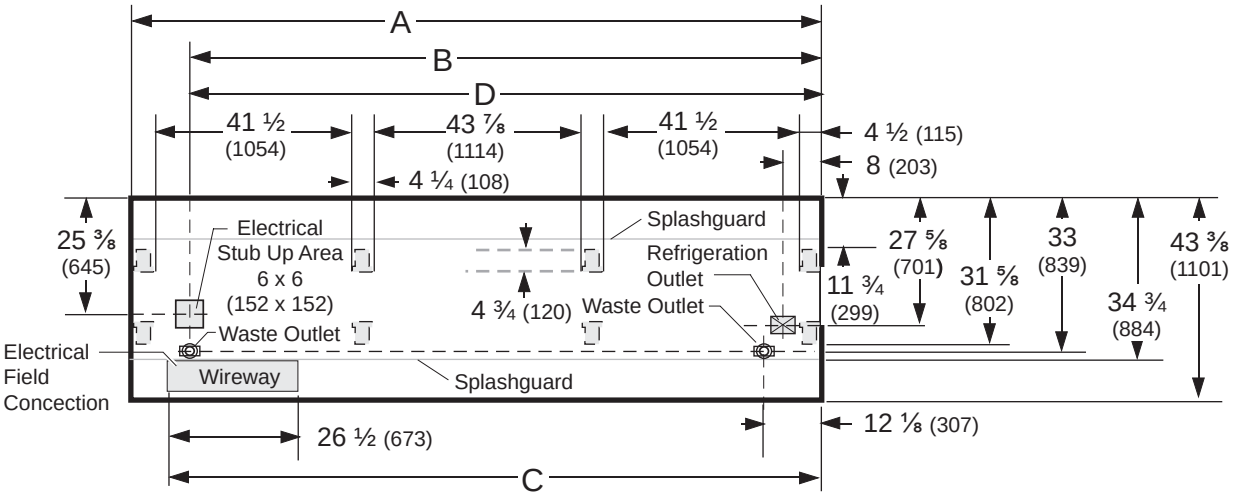
[J] This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8 oz/0.2 kg).

[K] Approximate charge based on normal operating conditions, contact Hussmann if releasable charge information is required.

Engineering
Plan Views

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 & (mm).



NOTE: Case-to-Case Electrical Comections are made IN FRONT OF SPLASHGUARD.

FRONT

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (without ends or partitions)	48 1/4 (1226)	73 3/4 (1873)	96 3/8 (2448)	144 1/2 (3670)
(Each end and insulated partition adds 2 in. (51 mm) to case line up.)				
Maximum O/S dimension of case back to front (includes bumper)	43 3/8 (1101)	43 3/8 (1101)	43 3/8 (1101)	43 3/8 (1101)
Back of case to front of splashguard	34 3/4 (884)	34 3/4 (884)	34 3/4 (884)	34 3/4 (884)
Back of case to O/S edge of front leg	31 5/8 (802)	31 5/8 (802)	31 5/8 (802)	31 5/8 (802)
Distance between edges of external legs and center legs	NA	30 1/4 (768)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	NA	43 7/8 (1114)
Distance between front legs and splashguard	3 1/8 (82)	3 1/8 (82)	3 1/8 (82)	3 1/8 (82)
Electrical Service (Electrical Field Wiring connection point)				
(B) RH End of case to center of stub up area	36 1/8 (9018)	61 5/8 (1565)	84 1/4 (2141)	132 3/8 (3363)
Back of case to center of stub up area	25 3/8 (645)	25 3/8 (645)	25 3/8 (645)	25 3/8 (645)
Length of electrical wireway Wireway	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	40 1/2 (1029)	67 1/2 (1715)	90 1/8 (2289)	138 1/4 (3511)
Waste Outlets (One each end)				
(D) RH End of case to the center of LH waste outlet	36 1/8 (918)	61 5/8 (1565)	84 1/4 (2141)	132 3/8 (3363)
RH End of case to the center of RH waste outlet	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)
Back O/S of case to center of waste outlets	33 (839)	33 (839)	33 (839)	33 (839)
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Refrigeration Outlet				
Back of case to center of refrigeration outlet	27 5/8 (701)	27 5/8 (701)	27 5/8 (701)	27 5/8 (701)
RH end of case to center of refrigeration outlet	8 (203)	15 (381)	8 (203)	8 (203)

Electrical Data

			4 ft	6 ft	8 ft	12 ft				
Number of Fans – 4W Evaporator			**1**	**1**	**2**	**2**				
				Amperes				**Watts**		
			4 ft	**6 ft**	**8 ft**	**12 ft**	**4 ft**	**6 ft**	**8 ft**	**12 ft**
Evaporator Fans										
120V	50/60Hz	Standard Energy Efficient	0.12	0.12	0.24	0.24	8	8	16	16
230V	50/60Hz	Standard Energy Efficient	0.06	0.06	0.12	0.12	8	8	16	16
230V	60Hz	Export	0.15	0.15	0.30	0.30	24	24	48	48
230V	50Hz	Export	0.18	0.18	0.36	0.36	27	27	54	54
Anti-sweat Heaters (on fan circuit)										
120V	50/60Hz	Standard	0.33	0.50	0.67	1.00	40	60	80	120
230V	50/60Hz	Export	0.18	0.26	0.35	0.52	40	60	80	120
Minimum Circuit Ampacity										
120V	50/60Hz	Standard Energy Efficient	0.65	0.82	1.11	1.44				
230V	50/60Hz	Standard Energy Efficient	0.44	0.52	0.67	0.84				
230V	60Hz	Export	0.68	0.61	0.85	1.02				
230V	50Hz	Export	0.56	0.64	0.91	1.08				
Maximum Over Current Protection 120V			**20**	**20**	**20**	**20**				
Maximum Over Current Protection 230V			15	15	15	15				
208V Electric Defrost			4.4	6.54	7.69	11.54	910	1360	1600	2400
230V Export Electric Defrost			3.8	5.91	6.96	10.43	800	1360	1600	2400
120V Koolgas Defrost			0.92	1.33	1.67	3.33	110	160	200	400
208V Koolgas Defrost			0.53	0.77	0.96	1.92	110	160	200	400
230V Koolgas Defrost			0.59	0.85	1.06	2.12	135	196	244	488

Standard Lighting

None

Product Data

Recommended Usable Cube [1] ***(Cu Ft/Ft)***	3.54 ft^3/ft (0.33 m^3/m)
AHRI Total Display Area [2] **(*Sq Ft/Ft)***	2.60 ft^2/ft (0.79 m^2/m)
Shelf Area [3] ***(Sq Ft/Ft)***	2.78 ft^2/ft (0.85 m^2/m)

[1] AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft^3/ft [m^3/m]

[2] Computed using AHRI 1200 standard methodology: Total Display Area, ft^2 [m^2]/Unit of Length, ft [m]

[3] Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann ***Product Reference Guide***. The standard shelf complement for this model is NONE.

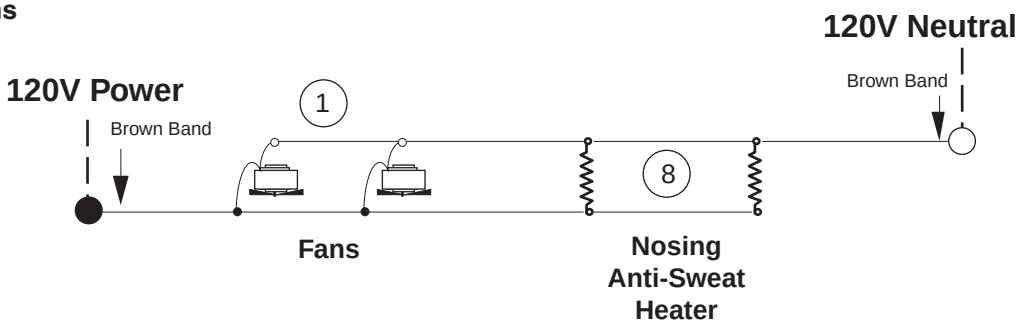
ESTIMATED SHIPPING WEIGHT [5]

Case					**Solid End**
	4 ft	***6 ft***	***8 ft***	***12 ft***	***(each)***
lb *(kg)*	600 (272)	800 (363)	1000 (454)	1200 (544)	50 (23)

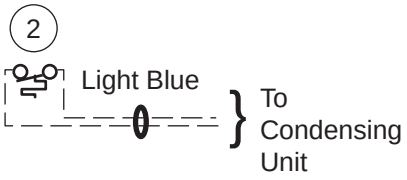
[4] Actual weights will vary according to optional kits included.

4 Ft – 1 Fan
6 Ft – 1 Fan
8 Ft – 2 Fans
12 Ft – 2 Fans

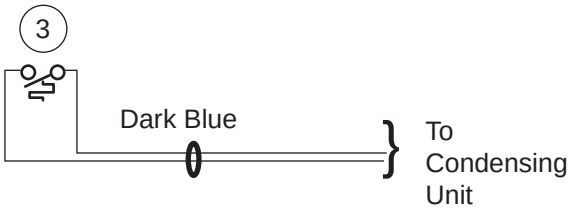
Electric Defrost – Standard

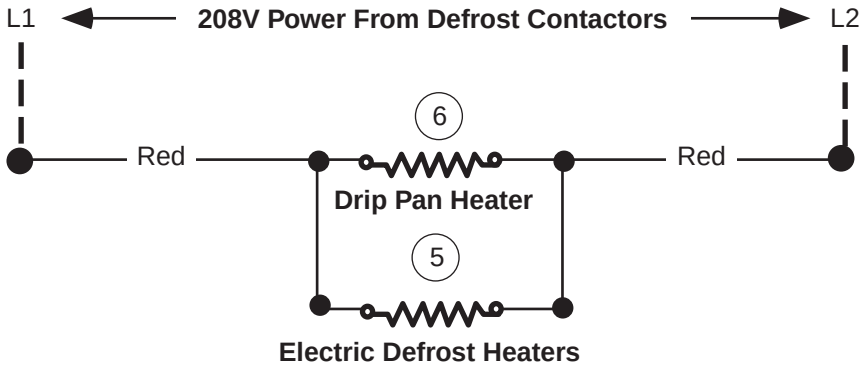


Refrigeration Thermostat (Optional)



Defrost Termination Thermostat



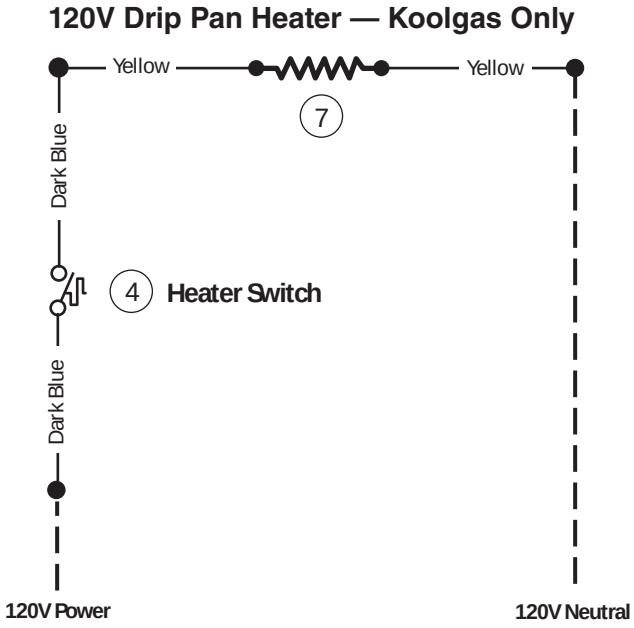


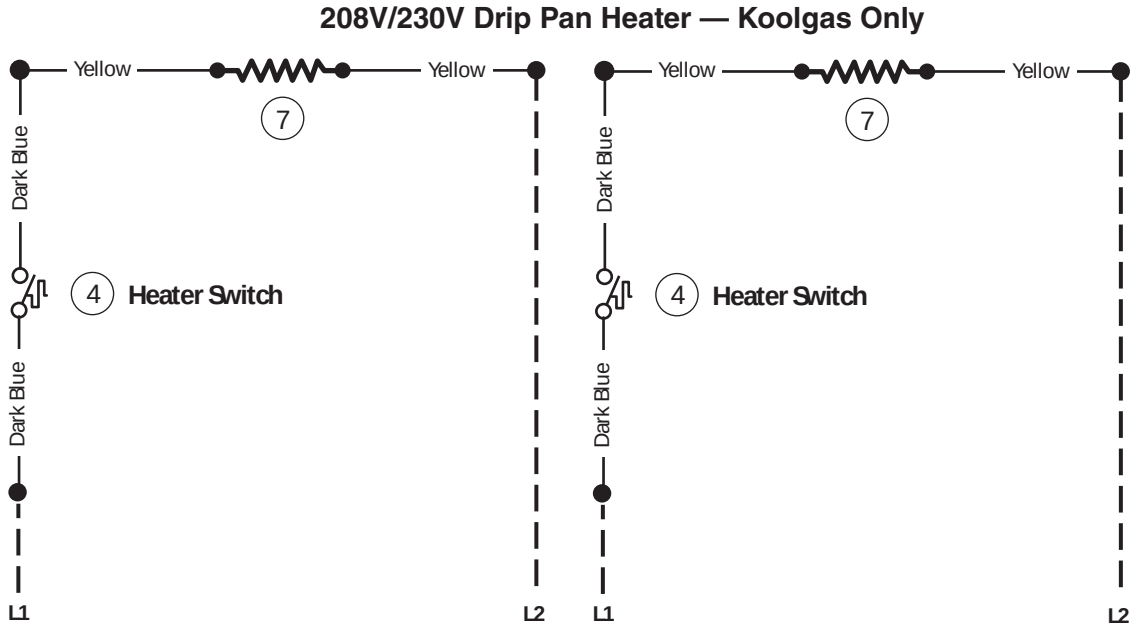
WARNING

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

Circled Number = Parts List Item Numbers

Gas Defrost – Optional



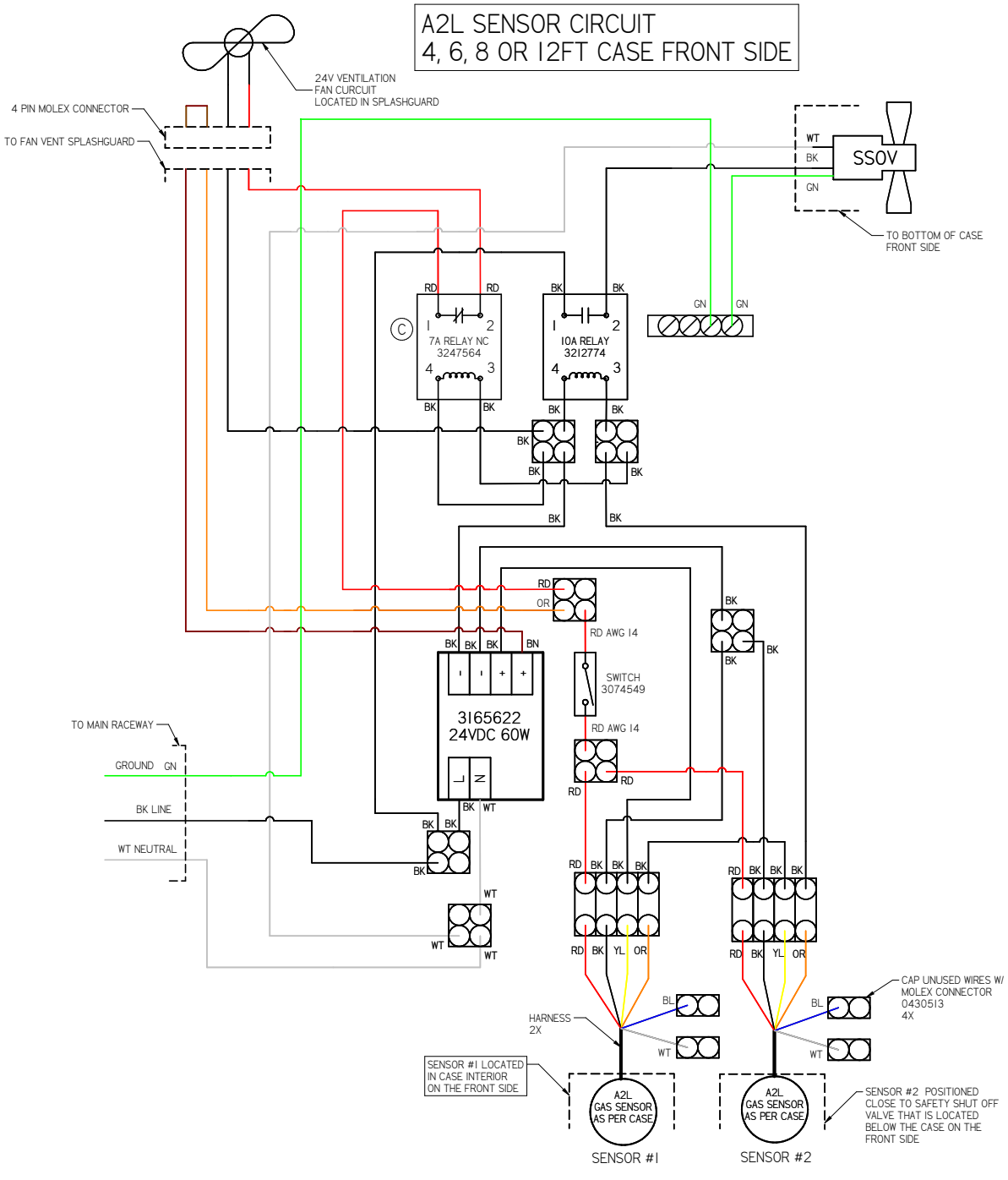


WARNING

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

Circled Number = Parts List Item Numbers

Wiring Diagram (FN, A2L detection and mitigation system)



WIRE COLOR UL COLOR CODES / ABBREVIATIONS		FACTORY 14GA WIRE	HUSSMANN®	
RED = RD	WHITE = WT	FACTORY 10GA WIRE	DIAGRAM-A2L GAS DETECT FN DANFOSS	
BLACK = BK	GREEN = GN	FIELD WIRE		
BLUE = BL	BROWN = BN			
YELLOW = YL	ORANGE = OR	DO NOT SCALE DRAWING	P/N 3234295	REV C
GRAY = GY	VIOLET = VT	SHEET 1 OF 1		

GDF 3.2 WIRE DIAGRAM SIZE D-H

Notes:

HUSSMANN®

DS_FN_0465898_K_EN

Revision History

Revision J: Added high glide refrigerant note.

Revision K: (March 2026) Updated format and added A2L, and CO_2 information

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

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