HUSSMANN®

# EXCEL™ FWGH

**Frozen**

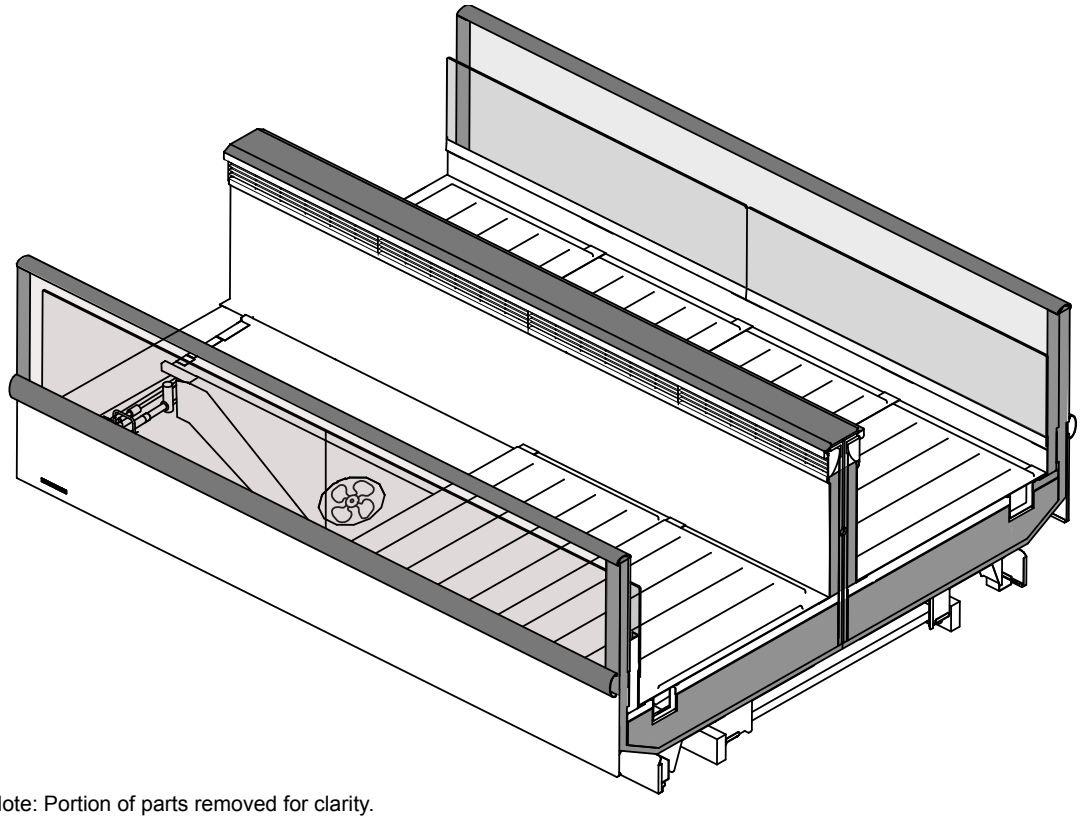
**Merchandiser Data Sheet**

## P/N 0540996_F

**NSF®** Certified

**January 2018**

**DOE 2017**
**Energy Efficiency Compliant**



Note: Portion of parts removed for clarity.

**NSF Certification**

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







**Spanish P/N 0542264**

# *Excel* FWGH
**Frozen**

## Refrigeration Data [1]

| | 8 Ft Case | | | AHRI 1200 Rating Point [2] |
|---|---|---|---|---|
| | MED | FF | IC | |
| Discharge Air °F (°C) | 24 (–4.44) | –12 (–24.44) | –22 (–30.00) | –15 (–26.11) |
| Evaporator °F (°C) | 19 (–7.22) | –20 (–28.88) | –30 (–34.44) | –24 (–31.11) |
| Unit Sizing °F (°C) | 17 (–8.33) | –23 (–30.55) | –33 (–36.11) | –27 (–32.77) |
| Btu/hr per ft (Watts/m) | | | | |
| Parallel | 500 (481) | 675 (649) | 755 (726) | 700 (673) |
| Conventional | 520 (500) | 705 (678) | 785 (755) | 730 (702) |

| | 6 Ft & 12 Ft Case | | | AHRI 1200 Rating Point [2] |
|---|---|---|---|---|
| | MED | FF | IC | |
| Discharge Air °F (°C) | 24 (–4.44) | –12 (–24.44) | –22 (–30.00) | –15 (–26.11) |
| Evaporator °F (°C) | 19 (–7.22) | –20 (–28.88) | –30 (–34.44) | –24 (–31.11) |
| Unit Sizing °F (°C) | 17 (–8.33) | –23 (–30.55) | –33 (–36.11) | –27 (–32.77) |
| Btu/hr per ft (Watts/m) | | | | |
| Parallel | 465 (447) | 670 (620) | 720 (693) | 670 (645) |
| Conventional | 485 (467) | 695 (645) | 750 (722) | 695 (669) |

Notes:
1. All data based on store temperature and humidity that does not exceed 75 deg F and 55% relative humidity.
2. For energy consumption comparison only.
3. Dual temperature operation kits are not suitable for ice cream temperature applications.
4. 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

**Frequency** (hours between defrost) 24
**Defrost Water** 2.2 lb/ft/day (3.3 kg/m)

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

| ***Offtime*** | **FWGH** |
|---|---|
| **Time (minutes)** | Not Recommended |

| ***Electric*** | |
|---|---|
| Temp Term (°F) | 48 |
| Failsafe (minutes) | 60 |

| ***Gas*** | |
|---|---|
| **Time (minutes)** | |
| FF | 15 |
| IC | 18 |

## Conventional Controls

| | **FWGH** |
|---|---|
| **Low Pressure Backup Control CI/CO** [5] | |
| FF | –17°F /–29°F<br>–27.2°C / –33.8°C |
| IC | –27°F /–39°F<br>–32.7°C / –39.4°C |
| **Indoor Unit Only, Pressure Defrost Termination** [5] | Not Recommended |

[5] Use a Temperature Pressure Chart to determine PSIG conversions.

## Estimated Charge [6]

| | | | **FWGH** |
|---|---|---|---|
| **6 ft** | 1.9 lb | 29 oz | .9 kg |
| **8 ft** | 2.5 lb | 40 oz | 1.1 kg |
| **12 ft** | 3.7 lb | 59 oz | 1.7 kg |

[6] This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

## Product Data

| | |
|---|---|
| ***Recommended Usable Cube*** [7] ***(Cu Ft/Ft)*** | 7.28 $ft^3$/ft (0.68 $m^3$/m) |
| ***AHRI Total Display Area*** [8] ***(Sq Ft/Ft)*** | 6.97 $ft^2$/ft (2.12 $m^2$/m) |
| ***Shelf Area (Sq Ft/Ft)*** | 5.50 $ft^2$/ft (1.68 $m^2$/m) |

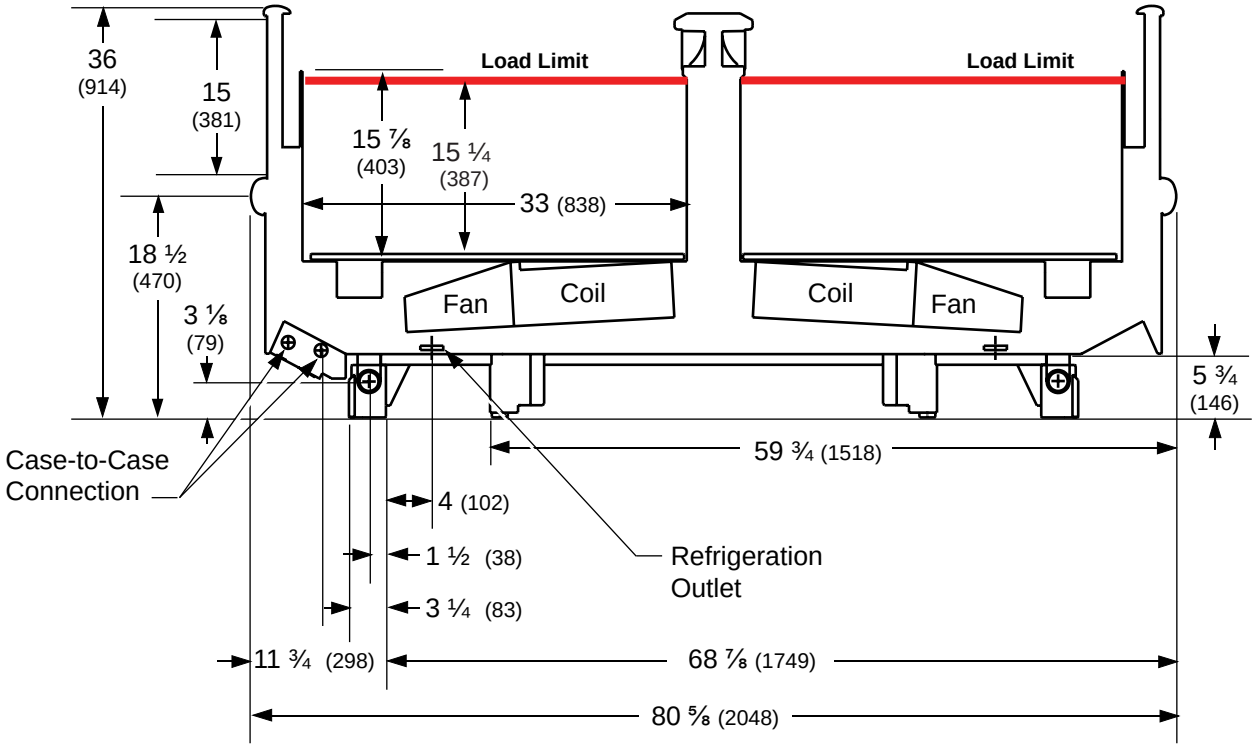
[7] AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, $ft^3$/ft [$m^3$/m]
[8] Computed using AHRI 1200 standard methodology: Total Display Area, $ft^2$ [$m^2$]/Unit of Length, ft [m]

**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 in. and (mm).**

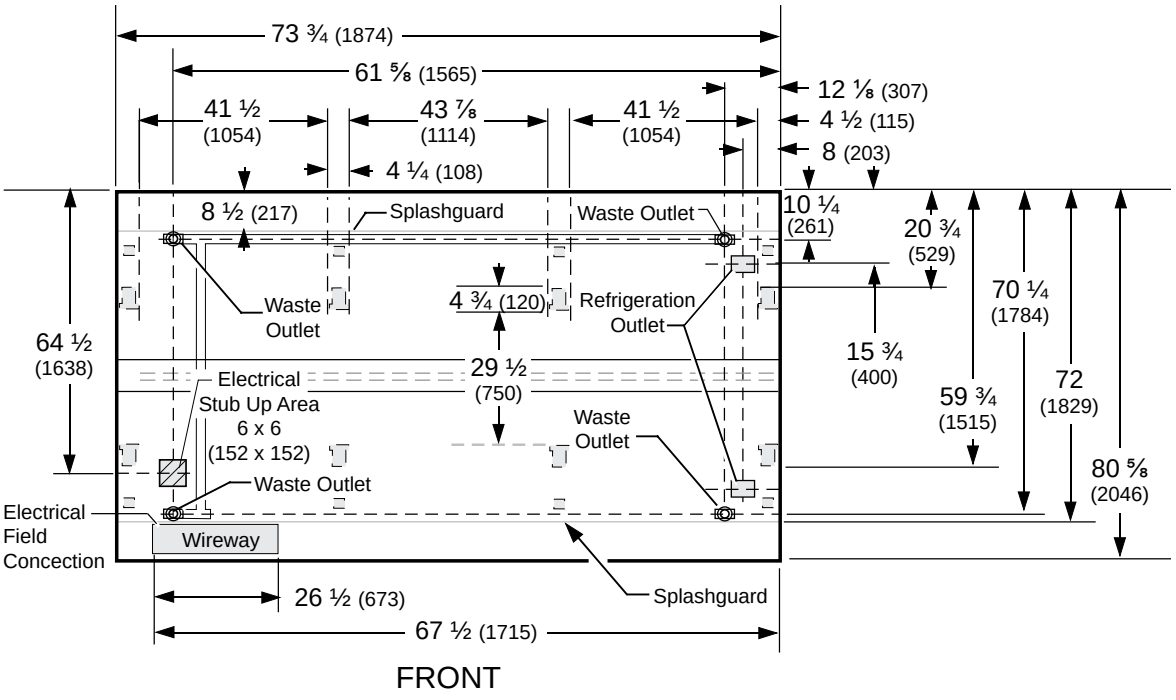
## FWGH




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

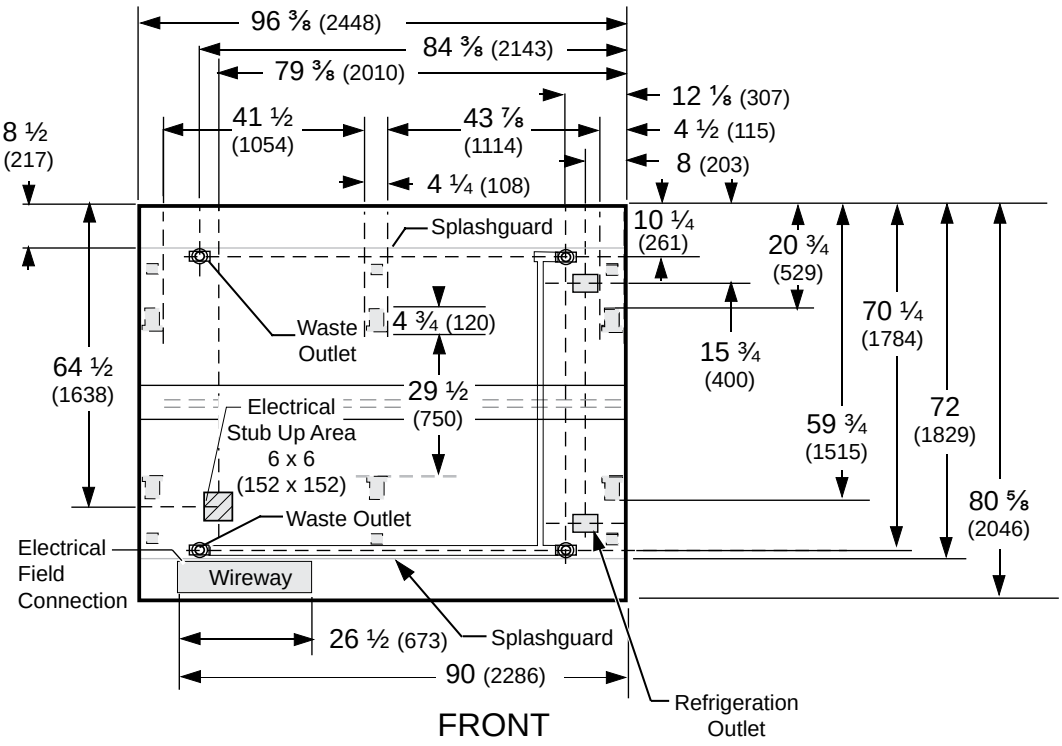
**Dimensions shown as in. and (mm).**

# Plan Views




FRONT

## 6 Foot Model

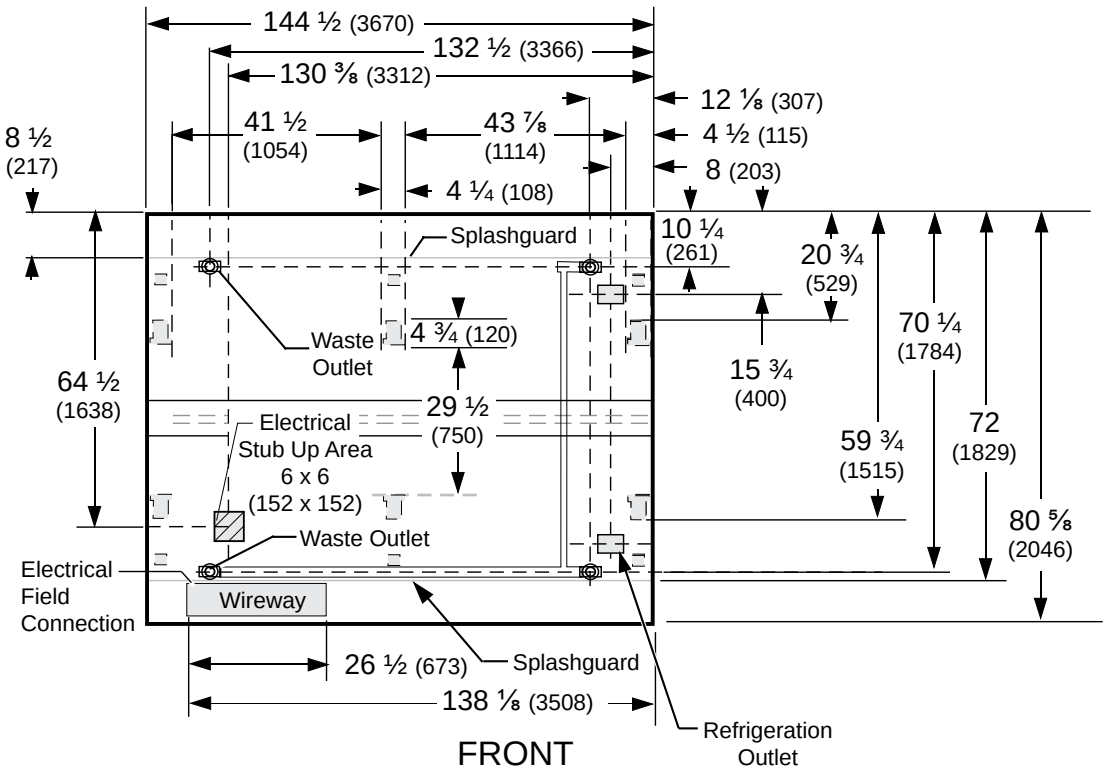



FRONT

## 8 Foot Model

**Dimensions shown as in. and (mm).**

# Plan Views




**12 Foot Model**

**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.) Schedule 40 PVC | 1 ¼ |
| Merchandiser Liquid Line (in.) | ⅜ |
| Merchandiser Suction Line (in.) | ⅝ |

**ESTIMATED SHIPPING WEIGHT †**

| **Case** | | | | **Solid End** |
|---|---|---|---|---|
| | ***6 ft*** | ***8 ft*** | ***12 ft*** | ***(each)*** |
| **lb** *(kg)* | *800 (363)* | 1400 (635) | 1600 (726) | 75 (34) |

† Actual weights will vary according to optional kits included.

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## Electrical Data

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Number of Fans** | | | | **6 ft** | **8 ft** | **12 ft** | |
| 4W Evaporator | | | | 4 | 4 | 4 | |
| | | | | **Amperes** | | | **Watts** |
| **Evaporator Fan** | | | | **6 ft** | **8 ft** | **12 ft** | **6 ft** | **8 ft** | **12 ft** |
| 120V | 50/60Hz | Energy Efficient | | 0.24 | 0.48 | 0.48 | 16 | 32 | 32 |
| **Anti-sweat Heaters (on fan circuit)** | | | | | | | | | |
| 120V | 50/60Hz | Standard | | 1.3 | 4 | 5 | 156 | 480 | 600 |
| **Minimum Circuit Ampacity** | | | | | | | | | |
| 120V | 50/60Hz | Standard | Energy Efficient | 2.74 | 4.68 | 5.68 | | | |
| **Maximum Over Current Protection 120V** | | | | 20 | 20 | 20 | | | |
| **Return Glass Anti-sweat Heaters** | | | | | | | | | |
| 120V | 50/60Hz | Standard | | 0.16 | 0.18 | 0.24 | 18 | 20 | 28 |
| **208V Electric Defrost** | | | | 13.1 | 15.38 | 23.07 | 2720 | 3200 | 4800 |
| **120V Koolgas Defrost** | | | | 2.7 | 3.33 | 6.66 | 320 | 400 | 800 |

**Standard Lighting**
None

## Replacement Parts List

| Part # | Description |
|---|---|
| **FAN ASSEMBLIES** | |
| **4W Standard Fan Assembly** | |
| 0477653 | Fan Motor/Evaporator |
| 0546175 | Fan Blade (8 ft only) |
| 0464847 | Fan Blade (6 &12 ft only) |
| **THERMOSTATS** | |
| 0398557 | Defrost Termination Thermostat (Front/Electric Defrost only) |
| 0398558 | Defrost Termination Thermostat (Rear/Electric Defrost only) |
| **HEATERS** | |
| 0481370 | Heater Switch (Koolgas Defrost only) |

| Part # | Description |
|---|---|
| **HEATERS (CONT.)** | |
| **208V Evaporator Defrost Heaters** | |
| 0444057 | 6 ft case |
| 3016524 | 8 ft case |
| 3016527 | 12 ft case |
| **208V Drip Pan Defrost Heaters, Electric** | |
| 0444300 | 6 ft case |
| 0462160 | 8 ft case |
| 0444296 | 12 ft case |
| **120V Drip Pan Defrost Heaters, Koolgas** | |
| 0465906 | 6 ft case |
| 0465907 | 8 ft case |
| 0465908 | 12 ft case |
| **Nosing Anti-sweat Heaters** | |
| 0495006 | 6 ft case |
| 0495007 | 8 ft case |
| 0495008 | 12 ft case |
| **Return Grille Anti-sweat Heaters** | |
| 0495010 | 6 ft case, Outside |
| 0545637 | 8 ft case, Inside |
| 0545574 | 8 ft case, Outside |
| 0545638 | 12 ft case, Inside |
| 0545575 | 12 ft case, Outside |
| **Return Glass Anti-sweat Heaters** | |
| 3020071 | 6 ft case |
| 0474785 | 8 ft case |
| 0474786 | 12 ft case |

# Fan Wiring
# Electrical Defrost - Standard

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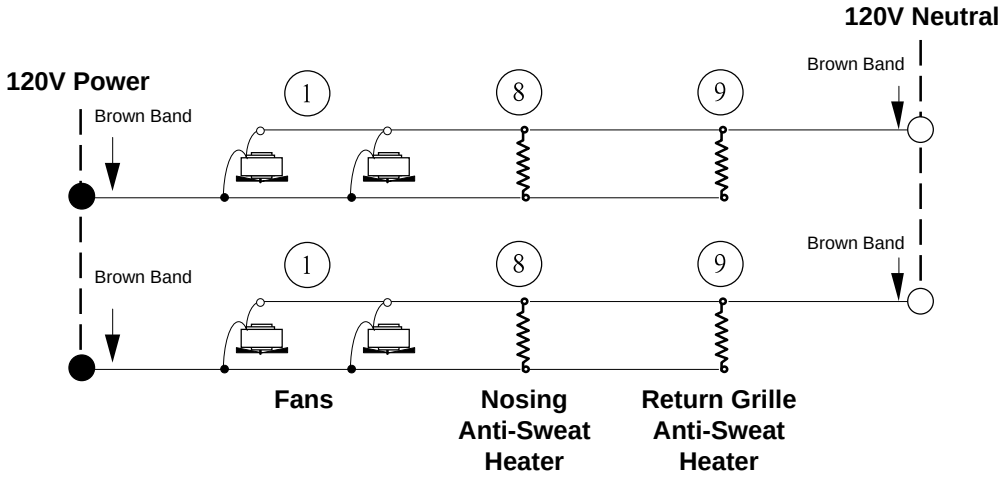
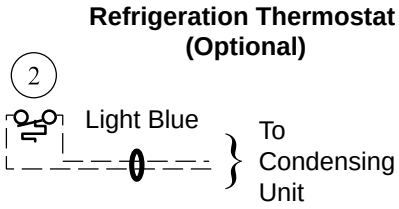
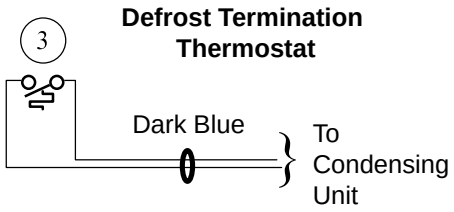
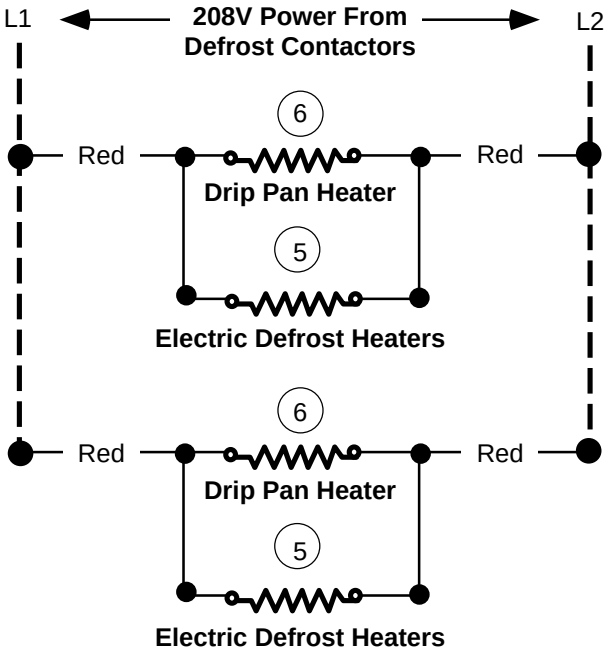
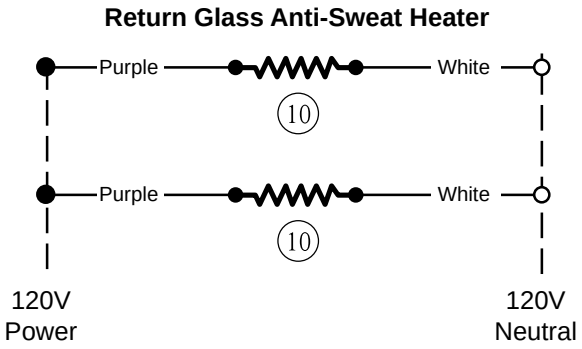


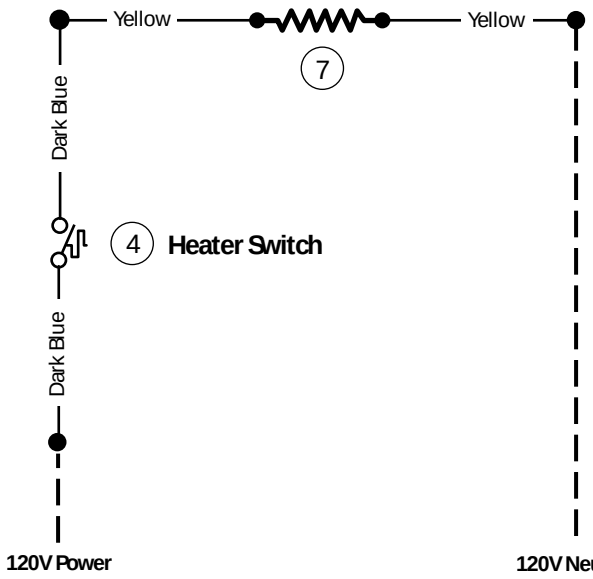

**WARNING**

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

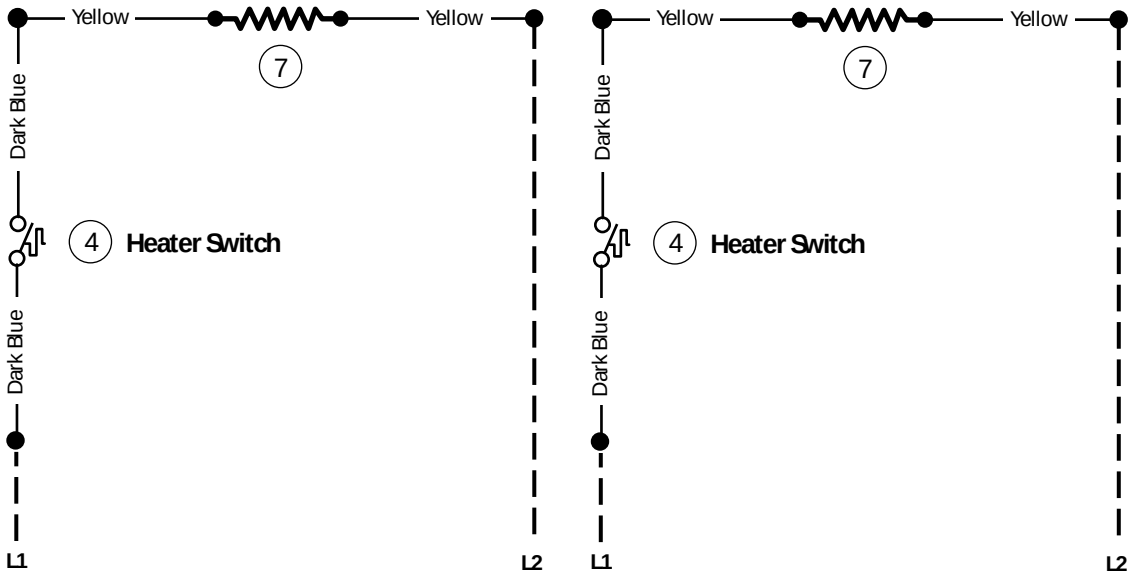
Circled Number = Parts List Item Numbers

## Optional Gas Defrost

**120V Drip Pan Heater — Koolgas Only**




**208V/230V Drip Pan Heater — Koolgas Only**




**WARNING**

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

Circled Number = Parts List Item Numbers

**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.

**Line Sizing — Refer to store legend.**
Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.

## Revision History

Revision A: June 2014: Original Issue.

Revision B: August 2015: Added gas defrost data on page 2.

Revision C: January 2016: Updated fan assembly part numbers page 7.

Revision D: May 2016: Added note on page 2.

Revision E: March 2017: Added high glide refrigerant note.

Revision F: January 2018: Added 6 foot data. Other changes marked with bar, underline or circle.