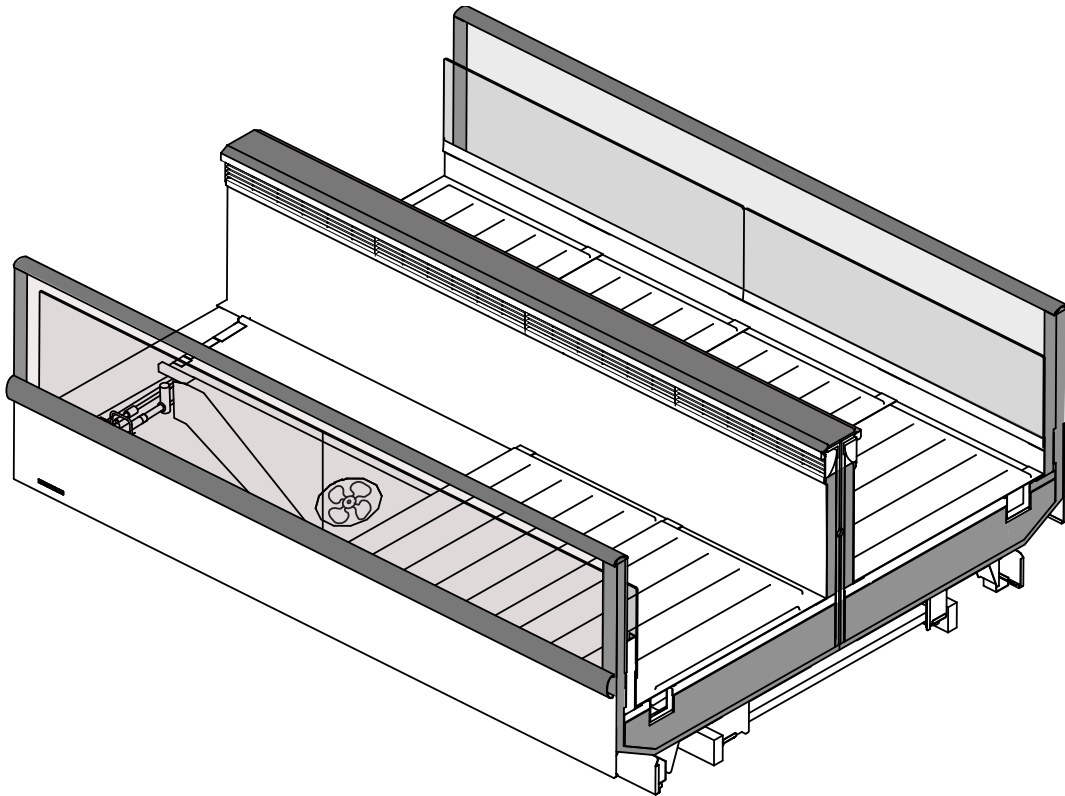


**DOE 2012**  
Energy Efficiency  
Compliant



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.

Performance Data	Page 2	Electrical Loads	Page 6
Product Data (AHRI Statistics)	Page 2	Replacement Parts List	Page 7
Cross Section	Page 3	Wiring Diagrams	Page 8
Plan Views	Page 4	Computing Refrigeration and Electrical Load	Page 10
Estimated Shipping Weights	Page 5	Revision History	Page 10

### Data sheet-Excel FWGH

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.

# Excel FWGH

## Frozen

### Refrigeration Data <sup>1</sup>

	8 Ft Case			AHRI 1200 Rating Point <sup>2</sup>
	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)

	12 Ft Case			AHRI 1200 Rating Point <sup>2</sup>
	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:

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

### 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 <sup>3</sup>

FF -17°F / -29°F  
-27.2°C / -33.8°C

IC -27°F / -39°F  
-32.7°C / -39.4°C

**Indoor Unit Only, Pressure Defrost Termination <sup>4</sup>**  
Not Recommended

<sup>4</sup> Use a Temperature Pressure Chart to determine PSIG conversions.

### Estimated Charge <sup>5</sup> FWGH

<b>8 ft</b>	2.5 lb	40 oz	1.1 kg
<b>12 ft</b>	3.7 lb	59 oz	1.7 kg

<sup>5</sup> This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

### Product Data

**Recommended Usable Cube <sup>6</sup> (Cu Ft/Ft)** 7.28 ft<sup>3</sup>/ft (0.68 m<sup>3</sup>/m)

**AHRI Total Display Area <sup>7</sup> (Sq Ft/Ft)** 7.03 ft<sup>2</sup>/ft (2.14 m<sup>2</sup>/m)

**Shelf Area (Sq Ft/Ft)** 5.50 ft<sup>2</sup>/ft (1.68 m<sup>2</sup>/m)

<sup>6</sup> AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft<sup>3</sup>/ft [m<sup>3</sup>/m]

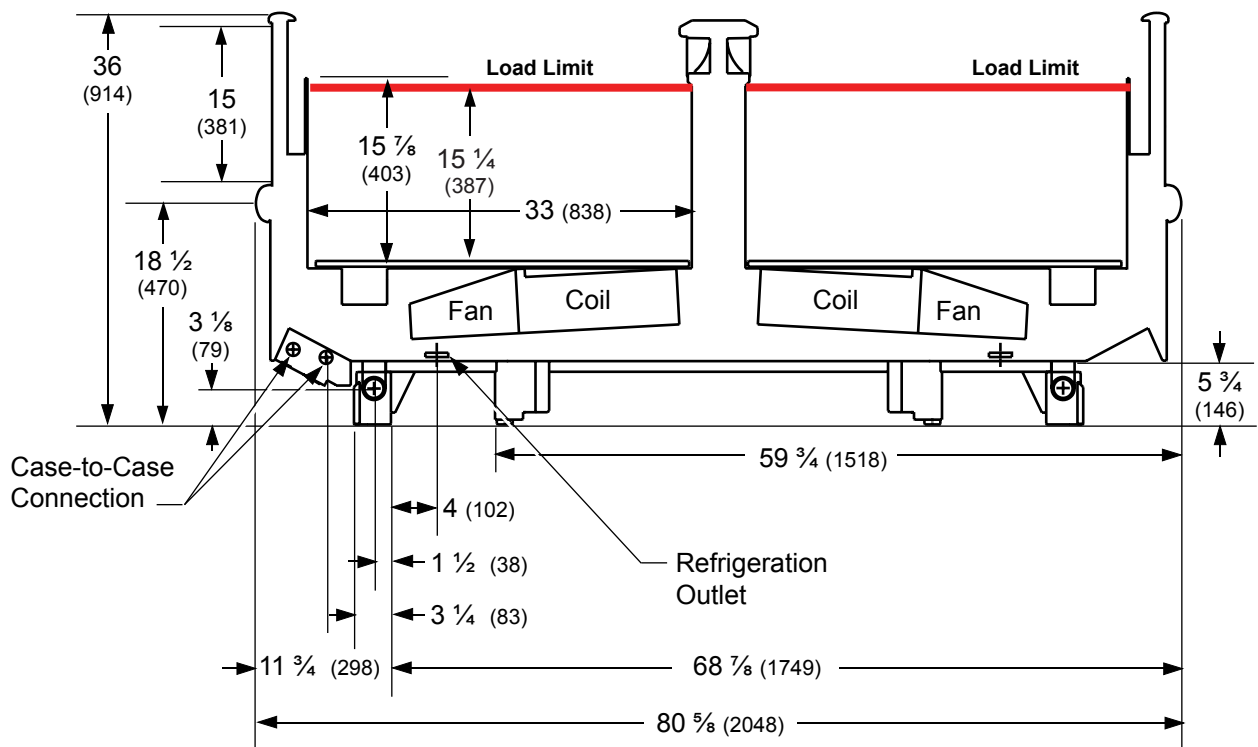
<sup>7</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]



Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2012 energy efficiency standards.

Dimensions shown as in. and (mm).

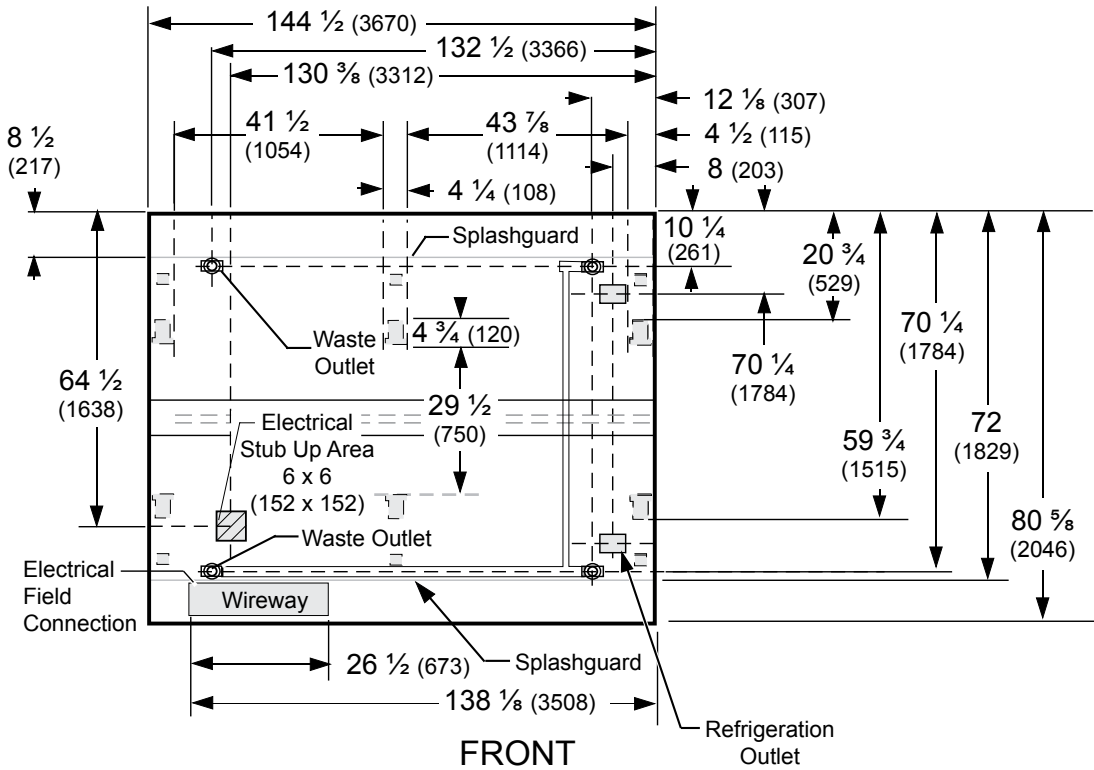
**FWGH**



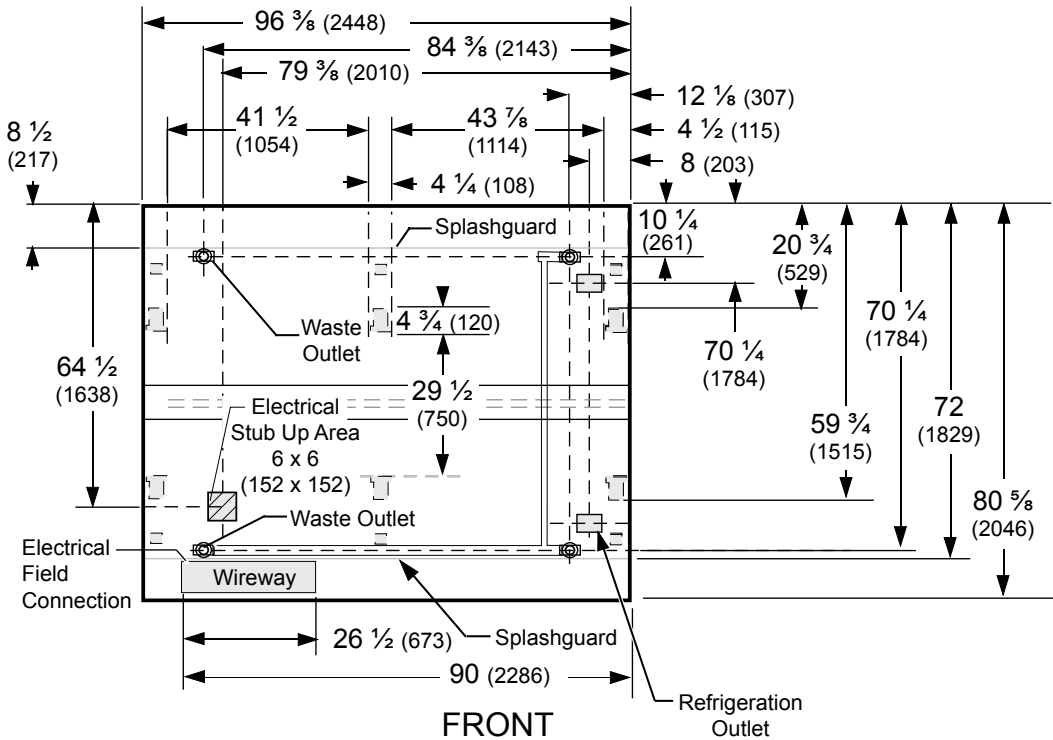
**NSF Certification**

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

**Plan Views**



**12 Foot Model**



**8 Foot Model**

<p style="text-align: center;"><b>ENDS or PARTITIONS</b></p> <p><i>Each standard end and each insulated partition adds 2 in. (38 mm) to case line up.</i></p>	<p style="text-align: center;"><b>PHYSICAL DATA</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Merchandiser Drip Pipe (in.)</td> <td style="text-align: right; padding: 2px;">1 1/4</td> </tr> <tr> <td colspan="2" style="padding: 2px; text-align: center;">Schedule 40 PVC</td> </tr> <tr> <td style="padding: 2px;">Merchandiser Liquid Line (in.)</td> <td style="text-align: right; padding: 2px;">3/8</td> </tr> <tr> <td style="padding: 2px;">Merchandiser Suction Line (in.)</td> <td style="text-align: right; padding: 2px;">5/8</td> </tr> </table>	Merchandiser Drip Pipe (in.)	1 1/4	Schedule 40 PVC		Merchandiser Liquid Line (in.)	3/8	Merchandiser Suction Line (in.)	5/8				
Merchandiser Drip Pipe (in.)	1 1/4												
Schedule 40 PVC													
Merchandiser Liquid Line (in.)	3/8												
Merchandiser Suction Line (in.)	5/8												
<p><b>ESTIMATED SHIPPING WEIGHT †</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Case</th> <th colspan="2" style="padding: 5px;"></th> <th style="text-align: left; padding: 5px;">Solid End</th> </tr> <tr> <th style="padding: 5px;"></th> <th style="text-align: center; padding: 5px;"><i>8 ft</i></th> <th style="text-align: center; padding: 5px;"><i>12 ft</i></th> <th style="text-align: center; padding: 5px;"><i>(each)</i></th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><b>lb (kg)</b></td> <td style="text-align: center; padding: 5px;">1400 (635)</td> <td style="text-align: center; padding: 5px;">1600 (726)</td> <td style="text-align: center; padding: 5px;">75 (34)</td> </tr> </tbody> </table> <p style="font-size: small; padding: 5px;">† Actual weights will vary according to optional kits included.</p>		Case			Solid End		<i>8 ft</i>	<i>12 ft</i>	<i>(each)</i>	<b>lb (kg)</b>	1400 (635)	1600 (726)	75 (34)
Case			Solid End										
	<i>8 ft</i>	<i>12 ft</i>	<i>(each)</i>										
<b>lb (kg)</b>	1400 (635)	1600 (726)	75 (34)										

## Electrical Data

<b>Number of Fans</b>	<b>8 ft</b>	<b>12 ft</b>		
4W Evaporator	4	4		
			<b>Amperes</b>	<b>Watts</b>
<b>Evaporator Fan</b>	<b>8 ft</b>	<b>12 ft</b>	<b>8 ft</b>	<b>12 ft</b>
120V 50/60Hz Energy Efficient	0.48	0.48	32	32
<b>Anti-sweat Heaters (on fan circuit)</b>				
120V 50/60Hz Standard	4	5	480	600
<b>Minimum Circuit Ampacity</b>				
120V 50/60Hz Standard Energy Efficient	4.68	5.68		
<b>Maximum Over Current Protection 120V</b>	20	20		
<b>Return Glass Anti-sweat Heaters</b>				
120V 50/60Hz Standard	0.18	0.24	20	28
<b>208V Electric Defrost</b>	15.38	23.07	3200	4800
<b>120V Koolgas Defrost</b>	3.33	6.66	400	800
<b>Standard Lighting</b>				
None				

## Replacement Parts List

**Part # Description**

**FAN ASSEMBLIES**

**4W Standard Fan Assembly**

0546170 7.0-in. Fan Assembly (8 ft only)  
0464845 7.0-in. Fan Assembly (12 ft only)  
0546175 Fan Blade

**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**

0462159 8 ft case  
0444058 12 ft case

**208V Drip Pan Defrost Heaters, Electric**

0462160 8 ft case  
0444296 12 ft case

**120V Drip Pan Defrost Heaters, Koolgas**

0465907 8 ft case  
0465908 12 ft case

**Nosing Anti-sweat Heaters**

0495007 8 ft case  
0495008 12 ft case

**Return Grille Anti-sweat Heaters**

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**

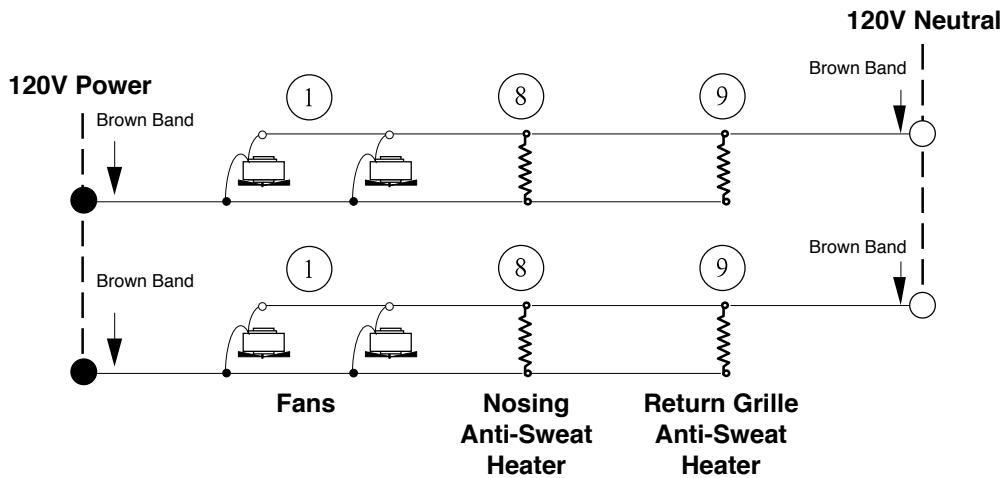
0474785 8 ft case  
0474786 12 ft case

FOR ADDITIONAL PARTS INFORMATION, VISIT

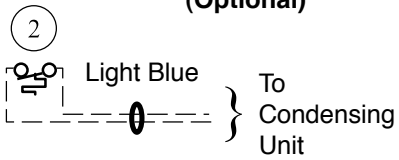
[HTTP://WWW.HUSSMANN.COM/EN/PAGES/AFTERMARKET-PARTS.ASPX](http://www.husmann.com/en/pages/aftermarket-parts.aspx)

# Fan Wiring Electrical Defrost - Standard

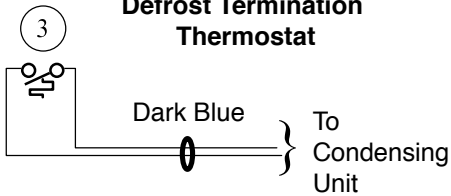
Excel **FWGH**  
Frozen



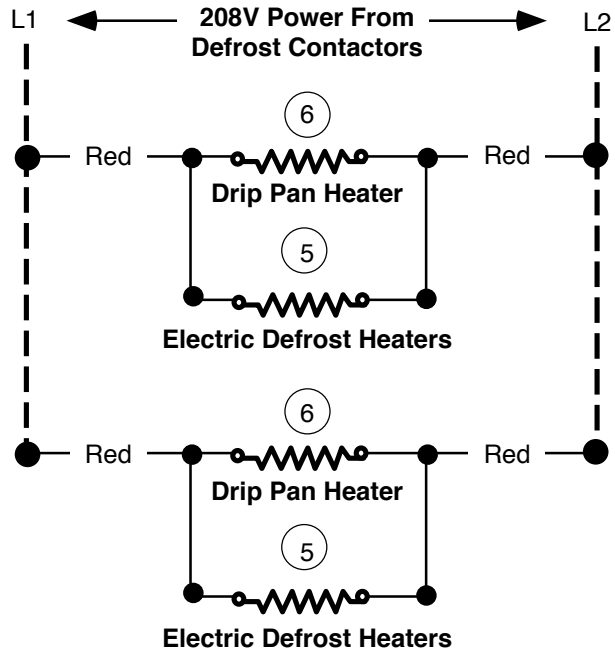
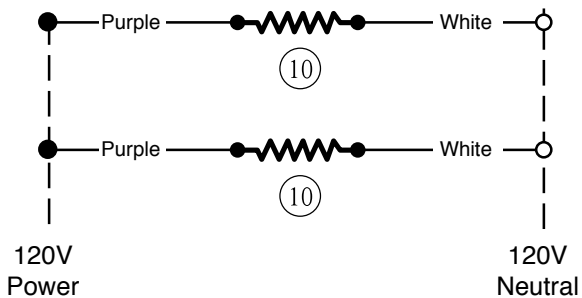
### Refrigeration Thermostat (Optional)



### Defrost Termination Thermostat



### Return Glass Anti-Sweat Heater



## WARNING

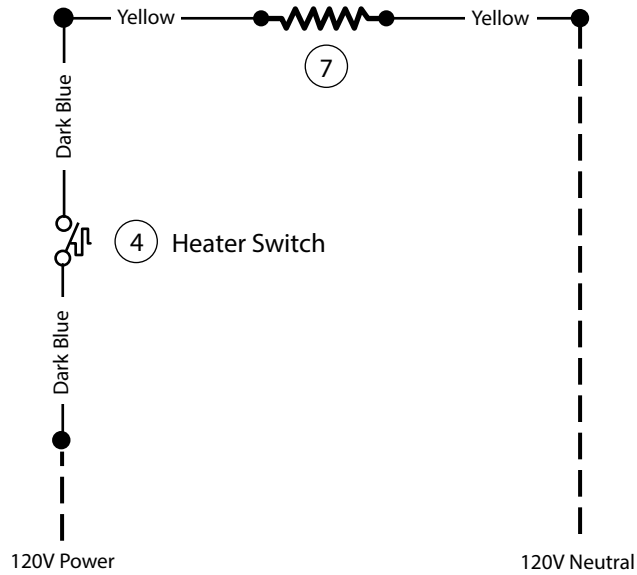
All components must have mechanical ground, and the merchandiser must be grounded.  
Circled Number = Parts List Item Numbers



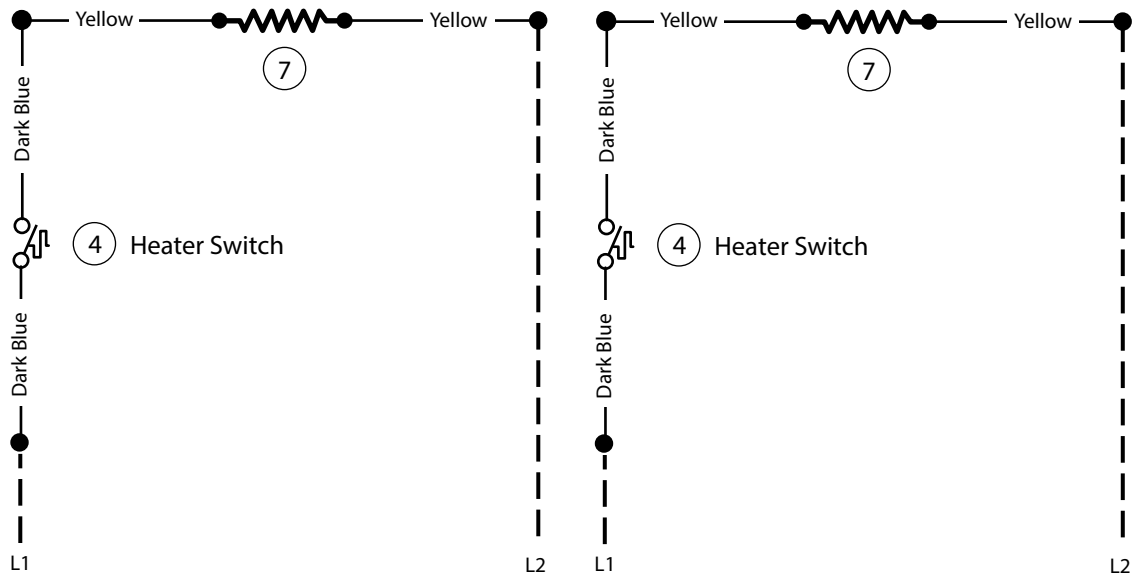
**Excel FWGH**  
Frozen

**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.

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### **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.