HUSSMANN® Excel



Technical Data Sheet

P/N 0465900_N

NSF® Certified March 2017

> **DOE 2017 Energy Efficiency** Compliant

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.

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A)
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Wiring	Item #	Item	Part #	Description	

Item	Part #	Description Wi	ring Item#	Item	Part #	Description W	iring Item #
Fan A	SSEMBLIES,	AND THERMOSTATS		HEAT	ERS		
A.	4W Energy	y Efficient Fan Assembly	(1)	F.	208V Eva	porator Defrost Heaters	(5)
	0477653	Fan Motor, Evaporator			3016520	4 ft case (HE.4850637)	
		(MO.4410544)			3016522	6 ft case (HE.4850620)	
	0464847	Fan Blade (FB.4780649)			3016524	8 ft case (HE.4850603)	
		`			3016527	12 ft case (HE.4850571)	
B.	Optional A	Adjustable Refrigeration The	ermostat(2)			,	
	-			G.	208V Drip	Pan Defrost Heaters, Elec-	tric (6)
C.	0398557	Defrost Termination Ther	mostat (3)		0481865	4 ft case (HE.4850638)	
		(Front/Electric Defrost on	ly)		0444300	6 ft case (HE.4850609)	
		(CT.4440611)			0462160	8 ft case (HE.4850636)	
					0444296	12 ft case (HE.4850572)	
D.	0398558	Defrost Termination Ther	mostat (3)				
		(Rear/Electric Defrost only	y)		120V Drip	Pan Defrost Heaters, Koo	lgas (7)
		(CT.4481088)			0488967	4 ft case (HE.4850641)	
					0465906	6 ft case (HE.4850628)	
E.	0481370	Heater Switch	(4)		0465907	8 ft case (HE.4850622)	
		(Koolgas Defrost only) (CT.4440738)			0465908	12 ft case (HE.4850623)	
				Н.	Nosing A	nti-sweat Heaters	(8)
					0495009	4 ft case (HE.4850687)	
					0495006	6 ft case (HE.4850684)	
					0495007	8 ft case (HE.4850685)	
					0495008	12 ft case (HE.4850686)	

Data sheet - Excel - FW

Note: Revision N: Added high glide refrigerant note. Other changes marked by bar, underline or circle.

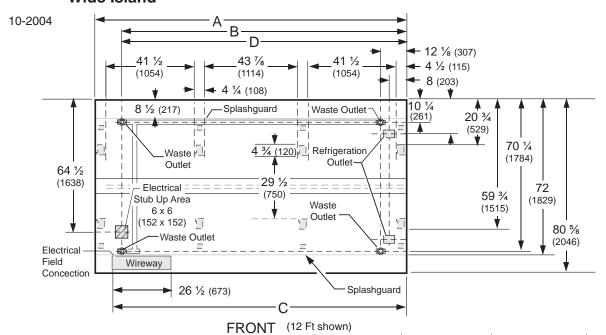
Engineering Plan Views

Low / MediumTemperature Wide Island

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).



	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (without ends or partitions)	48 1/4 (1226)	73 3/4 (1874)	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 (in	ncludes bumper)			
	80 5/8 (2046)	80 5/8 (2046)	80 5/8 (2046)	80 5/8 (2046)
Back of case to front of splashguard	72 (1829)	72 (1829)	72 (1829)	72 (1829)
Back of case to O/S edge of front leg	59 ³ / ₄ (1515)	59 3/4 (1515)	59 3/4 (1515)	59 3/4 (1515)
Distance between edges of external legs and cente	r 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	12 3/8 (312)	12 3/8 (312)	12 3/8 (312)	12 3/8 (312)
Electrical Service (Electrical Field Wiring connect	tion point)			
(B) RH End of case to center of stub up area	36 1/8 (918)	61 5/8 (1565)	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	64 1/2 (1638)	64 1/2 (1638)	64 1/2 (1638)	64 1/2 (1638)
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) [7]				
(D) RH End of case to the center of LH waste outlet	36 1/8 (918)	61 5/8 (1565)	84 1/4 (2140)	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	70 1/4 (1784)	70 1/4 (1784)	70 1/4 (1784)	70 1/4 (1784)
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 front refrigeration outlet	64 7/8 (1646)	64 7/8 (1646)	64 7/8 (1646)	64 7/8 (1646)
Back of case to center of rear refrigeration outlet	15 3/4 (400)	15 3/4 (400)	15 3/4 (400)	15 3/4 (400)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)

Compliant

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

Excel FW Low / MediumTemperature

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
Btulhrlft	MED	FF	IC
PARALLEL	400	510	560
CONVENTIONAL	410	530	580

*Dual temperature operation kits are not suitable for ice cream temperature applications.

§ 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

	MED	FF	IC
Frequency (hr)	24	24	24
Defrost Water (lb/ft/day)	1.6	1.5	1.2
(± 15% based on case confi	guration	and pro	duct
loading).			

Electric	MED	$\mathbf{F}\mathbf{F}$	IC
Temp Term (°F)	48	48	48
Failsafe (minutes)	60	60	60
GAS			
Duration (minutes)	NA	15	18
OFFTIME	Not Recom	nmendec	i

Standard Defrost Thermostat

Close on rise: close 48°F — open 33°F

CONVENTIONAL CONTROLS

Low Pressure Backup	Control — CI/CO **
Med	$+22^{\circ}F/+10^{\circ}F$
EE	170E / 200E

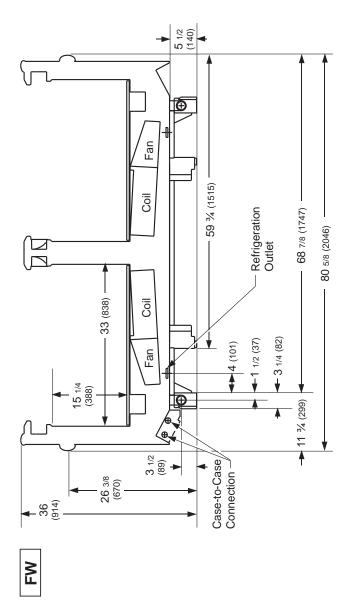
FF –17°F /*–*29°F IC -27°F /-39°F

Indoor Unit Only, Pressure Defrost Termination**

Not Recommended

**Use a Temperature Pressure Chart to determine PSIG conversions.

Dimensions shown as inches & (mm).



Estimated Charge ***

4 ft	1.7 lb	27 oz	0.8 kg
6 ft	2.1 lb	34 oz	1.0 kg
8 ft	2.5 lb	40 oz	1.1 kg
12 ft	3.7 lb	59 oz	1.7 kg

^{***}This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8 oz/0.2 kg).

NSF Certification

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

Excel FW

Low / MediumTemperature

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			4 ft	6 ft	8 ft	12 ft				
Number	of Fans – 4	W Evaporator	2	2	4	4				
				Amp	eres			Wa	atts	
			4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Evapora	tor Fans									
120V	60Hz	Energy Efficient	0.24	0.24	0.48	0.48	16	16	32	32
230V	60Hz	Energy Efficient	0.12	0.12	0.24	0.24	16	16	32	32
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-swe	eat Heaters	(on fan circuit)								
120V	50/60Hz	Standard	0.67	1.00	1.33	2.00	80	120	160	240
230V	50/60Hz	Export	0.35	0.52	0.70	1.04	80	120	160	240
Minimu	n Circuit Aı	mpacity								
120V	60Hz	Standard Energy Efficient	1.11	1.68	2.01	2.68				
230V	60Hz	Standard Energy Efficient	0.67	0.84	1.14	1.48				
230V	60Hz	Export	0.85	1.02	1.50	1.84				
230V	50Hz	Export	0.91	1.08	1.62	1.96				
Maximu	m Over Cur	rrent Protection 120V	20	20	20	20				
Maximu	ım Over Cu	rrent Protection 230V	15	15	15	15				
208V El	ectric Defro	st	8.75	13.07	15.38	23.07	1820	2720	3200	4800
230V Ex	port Electri	ic Defrost	7.91	11.83	13.91	20.87	1820	2720	3200	4800
120V Ko	oolgas Defro	ost	2.50	2.67	3.33	6.66	300	320	400	800
208V Ko	oolgas Defro	ost	1.06	1.54	1.92	3.84	220	320	400	800
230V Ko	olgas Defro	ost	1.17	1.70	2.12	4.25	270	400	488	977

Standard Lighting

None

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Product Data

 Recommended Usable Cube ¹ (Cu FtlFt)
 6.99 ft³/ft (0.65 m³/m)

 AHRI Total Display Area ² (Sq FtlFt)
 4.93 ft²/ft (1.50 m²/m)

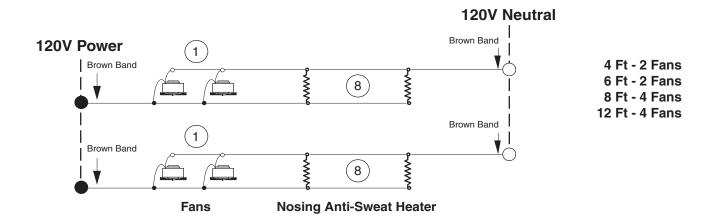
 Shelf Area ³ (Sq FtlFt)
 5.50 ft²/ft (1.68 m²/m)

- 5.50 ft²/ft (1.68 m²/m)
- 1 AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
- ² Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/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.

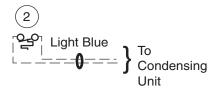
ESTIMATED SHIPPING WEIGHT 5					
Case					Solid End
	4 ft	6 ft	8 ft	12 ft	(each)
lb (<i>kg</i>)	1000 (454)	1200 (544)	1400 (635)	1600 (726)	75 (34)

P/N 0465900_N

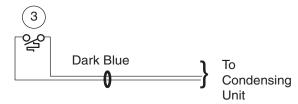
Electric Defrost – Standard

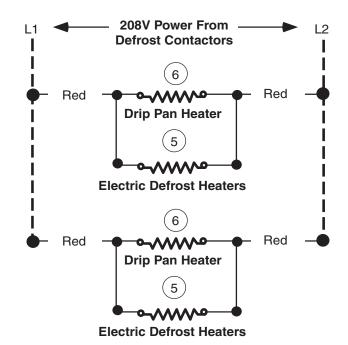


Refrigeration Thermostat (Optional)



Defrost Termination Thermostat



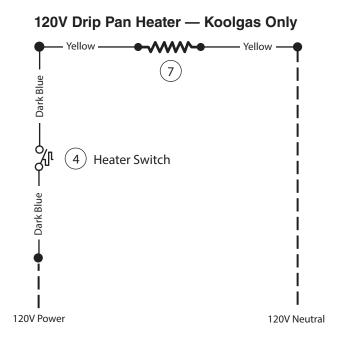


WARNING

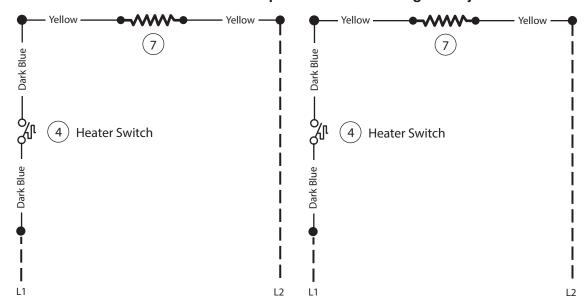
All components must have mechanical ground, and the merchandiser must be grounded.

Circled Number = Parts List Item Numbers

Gas Defrost – Optional



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