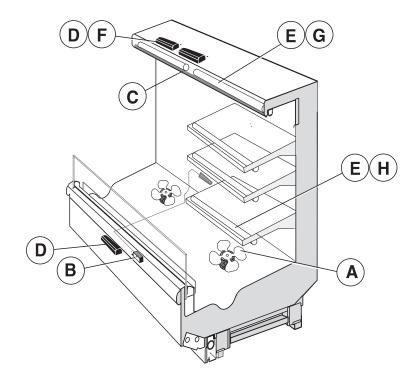
# HUSSMANN<sup>®</sup> *Excel*



# P/N 0466007\_S NSF® Certified April 2017

C2X-XLGEP

DOE 2017
Energy Efficiency
Compliant





Scan QR code to access product information on your mobile device.

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.

Item Par	t #	Description	Wiring Item #	Item	Part #	Description	Wiring Item	n #
FAN ASSEN	MBLIES			Lami	PS AND BALL	ASTS		
4 Ft, 8 Ft	& 12 Ft			D.	Ballast, El	ectronic		(4)
A. <b>7W</b>	Standard 1	Energy Efficient Fa	an Assembly (1)		0480130	2 lamps (BA.448	31676)	
047	7654	Fan Motor, Evap	orator		0480131	3 lamps (BA.448	31654)	
		(MO.4410545)			0480132	4 lamps (BA.448	31677)	
0142	2780	Fan Blade (FB.01	42780)	E.		Fluorescent Lan	mp	(5)
6 Ft Only						Replace with like	fixtures	
A. <b>4W</b>	Standard 1	Energy Efficient Fa	an Assembly (1)					
047	7653	Fan Motor, Evap	orator	LED	FIXTURES AN	ND POWER SUPPLY		
		(MO.4410544)		F.	0501213	Power Supply (	EP.4481861)	(6)
0382	2383	Fan Blade (FB.47	80617)	G.		LED Canopy F	ixture	(7)
						Replace with like	fixtures	
THERMOS	ΓATS			Н.		LED Shelf Fixt	ure	(8)
B. Opt	ional Adju	ustable Refrigerat	ion Thermostat(2)			Replace with like	fixtures	
HEATERS								
C.		Canopy Anti-Sw	veat Heater (3)					

Data sheet-Excel-C2X-XLGEP

0512499

0512500

0512501

0512503

Note: Revision S: April 2017. Updated LED energy values. Other changes marked with a bar, circle or underline.

4 ft (HE.4851174)

6 ft (HE.4851175)

8 ft (HE.4851176)

12 ft (HE.4851178)

### Engineering Plan Views

PHYSICAL DATA
Merchandiser Drip Pipe (in.)
Merchandiser Liquid Line (in.)
Merchandiser Suction Line (in.)
7/8

Dairy/Delicatessen Precut & Packaged Produce

Dimensions shown as inches and (mm).

01-2005 C2X В 3 in. 8 (203) (77 mm) 41 1/2 43 <sup>7</sup>/8 41 1/2 Required **4 <sup>1</sup>/**2 (115) (1054)(1114)(1054)Air Gap **4 <sup>1</sup>/**4 (108) **4 <sup>3</sup>/**4 (120) Refrigeration Electrical 31 <sup>5</sup>/8 42 26 <sup>1</sup>/<sub>4</sub> Outlet Stub Up Area 24 (804)(1064)6 x 6 (665)4 3/4 (120) (612)(152 x 152) 30 1/4 Waste Outlet 33 1/2 (768)(851)Waste Outlet Electrical Field Connections Wireway 26 1/2 Splashguard - 12 <sup>1</sup>/<sub>8</sub> (307) (673)C

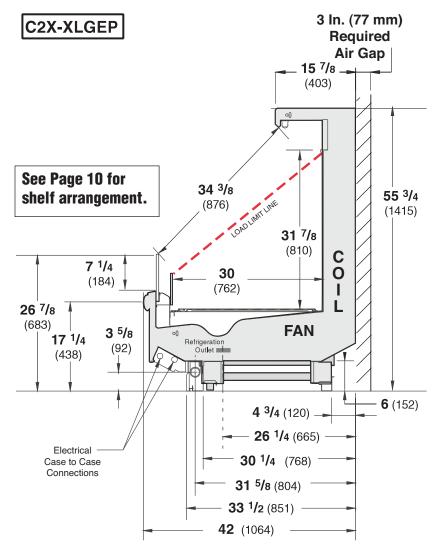
NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

FRONT

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (without ends or partitions)	48 3/8 (1229)	72 3/8 (1838)	96 3/8 (2448)	144 1/2 (3670)
(Each end and insulated partition adds 1 ½ in. (38 mm)	to case line up.)			
Maximum O/S dimension of case back to front				
(includes bumper)	42 (1064)	42 (1064)	42 (1064)	42 (1064)
Back of case to front of splashguard	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)
Back of case to O/S edge of front leg	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)
Distance between edges of external legs and center	r legs NA	29 1/2 (750)	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	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
Electrical Service (Electrical Field Wiring connection p	oint)			
<b>(B)</b> RH End of case to center of stub up area	36 1/4 (921)	60 1/4 (1530)	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	24 (612)	24 (612)	24 (612)	24 (612)
Length of electrical 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	42 1/8 (1070)	66 1/8 (1680)	90 1/8 (2289)	138 1/4 (3511)
Waste Outlets (One each end)				
<b>(D)</b> RH End of case to the center of LH waste outlet	36 1/4 (921)	60 1/4 (1530)	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	31 5/8 (804)	31 5/8 (804)	31 5/8 (804)	31 5/8 (804)
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	26 1/4 (665)	26 1/4 (665)	26 1/4 (665)	26 1/4 (665)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)

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 and (mm).



### **NSF** Certification

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

<b>Estimated C</b>	harge **	C2X-	<b>XGEP</b>
4 ft	1.6 lb	26 oz	0.7 kg
6 ft	2.3 lb	37 oz	1.0 kg
8 ft	3.2 lb	51 oz	1.5 kg
12 ft	4.5 lb	70 oz	2.0 kg

<sup>\*\*</sup>This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8 oz/0.2 kg).

### Excel C2X-XLGEP

### Dairy/Delicatessen

### **Precut & Packaged Produce**

#### REFRIGERATION DATA

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

C2X-XLGEP§ Da	airy/Del	i/Pro	duce M	eat
	Unlit	Lit	UNLIT	Lit
Discharge Air °F	33	31	30	28
Evaporator °F	28	26	25	23
Unit Sizing °F	26	24	23	21

§ 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 — Unlit Shelves ‡

C2X-XLGEP Da	Meat	
PARALLEL		
4 ft/8 ft/12 ft	754	794
6 ft	757	797
CONVENTIONAL		
4 ft/8 ft/12 ft	784	824
6 ft	787	827

<sup>\*</sup> Add 10 Btu/hr/ft *per shelf row* for LED fixtures. Add 20 Btu/hr/ft *per shelf row* for fluorescent lamps.

### **DEFROST DATA**

#### C2X-XLGEP

Frequency (hr)	12
Defrost Water (lb/ft/day)	7

( $\pm 15\%$  based on case configuration and product loading.)

OFFTIME	C2X-XLGEP
Time (minutes)	30
ELECTRIC OR GAS	Not Recommended

### **CONVENTIONAL CONTROLS**

Low Pressure Backup Control

C2X-XLGEP Dairy/Deli/Produce Meat

CI/CO\* 19°F / 9°F 16°F / 6°F

Indoor Unit Only, Pressure Defrost Termination\* 48°F

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

### Excel C2X-XLGEP

### Dairy/Delicatessen

### **Precut & Packaged Produce**

	4 • 1	TO 4
H 14	ectrical	Llata
	ccuicai	Data

Number of	f Fans — 7W	4 ft 1	6 ft	8 ft 2	12 ft 3				
	f Fans — 4W	_	2	_	_				
			Amı	oeres			W	atts	
		4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Evaporato	r Fan								
120V	50/60Hz Standard Energy Efficient	0.19	0.24	0.38	0.57	14	16	28	42
230V	50/60Hz Standard Energy Efficient	0.10	0.12	0.20	0.30	14	16	28	42
230V	60Hz Export	0.25	0.30	0.50	0.75	39	48	78	117
230V	50Hz Export	0.28	0.36	0.56	0.84	42	54	84	126
Minimum	Circuit Ampacity †								
120V	50/60Hz Standard Energy Efficient	0.39	0.44	0.58	0.77				
230V	50/60Hz Standard Energy Efficient	0.30	0.32	0.40	0.50				
230V	60Hz Export	0.45	0.50	0.70	0.95				
230V	50Hz Export	0.48	0.56	0.76	1.04				
Maximum	Over Current Protection 120V	20	20	20	20				
	Over Current Protection 230V	15	15	15	15				
Anti-swear	t Haatars								
120V	50/60Hz Standard	0.10	0.15	0.20	0.30	12	18	24	36
Standard 1	Lighting (T-8 Fluorescent)								
1 Row	0 0 0	0.26	0.51	0.51	0.77	30	59	59	85
1 KOW V	Сапору	0.20	0.51	0.51	0.77	30	39	39	0.5

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.

Optional Lighting (T-8 Fluorescent) Additional 1 Row Canopy 1 Row Rail Light	0.26 NA -	0.51 — Glass f	0.51	0.77 not accept r	30 ail light	59	59	85
3 Rows of Shelves	0.77	1.53	1.53	2.31	59	177	177	255
<b>EcoShine II Canopy</b>								
1 Row Canopy — EcoShine II	0.16	0.26	0.32	0.48	19.3	31.6	38.6	58.0
1 Row Canopy — EcoShine II HO	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4
EcoShine II Shelf								
2 Rows of Shelves	0.16	0.23	0.33	0.49	19.8	28.2	39.5	59.3
3 Rows of Shelves	0.25	0.35	0.49	0.74	29.7	42.3	59.3	89.0

120V Fluorescent Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting

Please note: some combinations of fluorescent lights on this case model may not be compliant with DOE 2017 and may not be available to order in the US and Canada. More lighting options are available with LED lights. The Hussmann Product Configurator will not allow lighting options that do not comply with the DOE 2017 standards.

<sup>120</sup>V LED Lighting Circuit Total = Canopy Lighting + Shelf Lighting

<sup>230</sup>V Lighting Circuit Total = Multiply 120V Lighting Circuit Total by 0.52

<sup>†</sup> MCA does not include Canopy A/S Heaters because heaters are wired separately from fans.

## Excel C2X-XLGEP Dairy/Delicatessen Precut & Packaged Produce

### **Product Data**

 Recommended Usable Cube ¹ (Cu Ft/Ft)
 3.61 ft³/ft (0.34 m³/m)

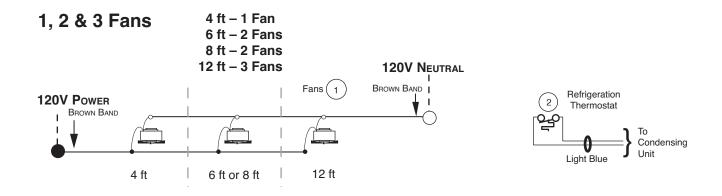
 AHRI Total Display Area ² (Sq Ft/Ft)
 3.27 ft²/ft (1.00 m²/m)

 Shelf Area ³ (Sq Ft/Ft)
 6.36 ft²/ft (1.94 m²/m)

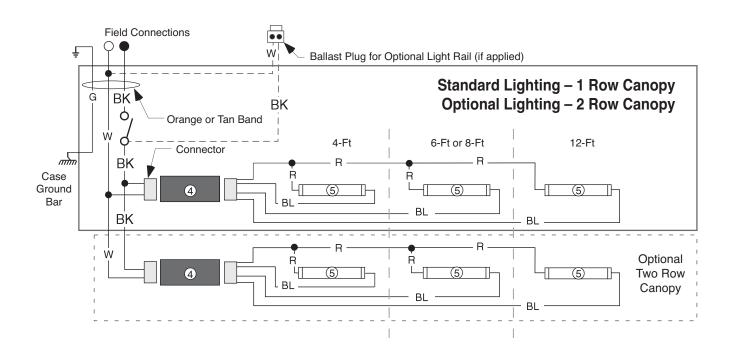
- 1 AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
- <sup>2</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]
- <sup>3</sup> Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann *Product Reference Guide*. The standard shelf complement for this model is (1) row of 12-inch shelf, (1) row of 16-inch shelf and (1) row of 18-in shelf.

ESTIMATED SHIPPING WEIGHT 4					
Case					Solid End
	4 ft	6 ft	8 ft	12 ft	(each)
<b>lb</b> ( <i>kg</i> )	600 (272)	800 (363)	1000 (454)	1200 (544)	75 (34)

### Fan Wiring Offtime Defrost



### **Canopy Fluorescent Light Circuits**

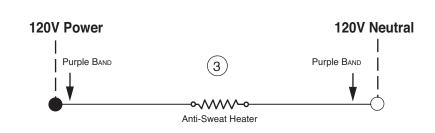


### **WARNING**

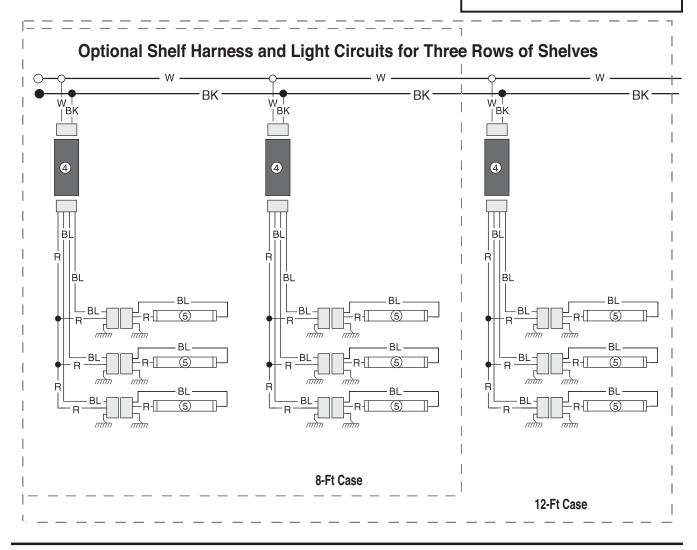
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White 
$$\bullet$$
 = 120V Power  $\bigcirc$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\frac{1}{2}$  = Case Ground



### Optional Shelf Lighting Fluorescent Fixtures



### **WARNING**

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

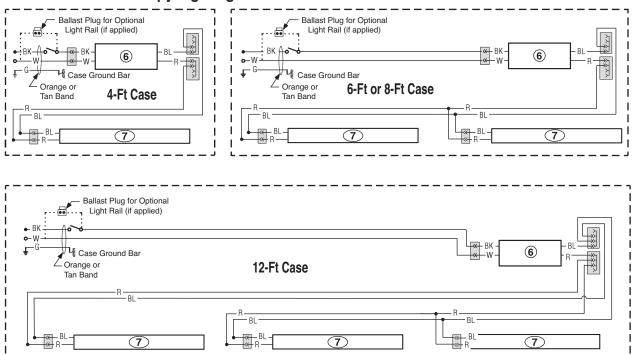
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

• = 120V Power  $\bigcirc$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\frac{1}{1200}$  = Case Ground

### **Optional Canopy Light Circuits — LED Fixtures**

### EcoShine II LED Canopy Lighting - 1 Row



### **WARNING**

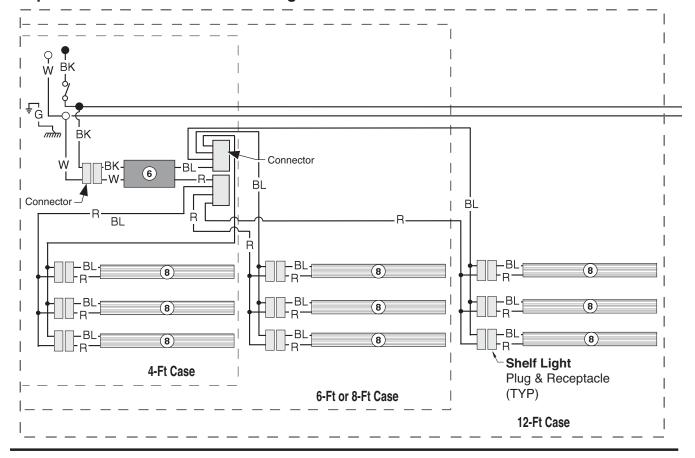
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

• = 120V Power  $\bigcirc$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\frac{1}{2}$  = Case Ground

### Optional Shelf Harness and LED Light Circuits for 2 or 3 Rows of Shelves



### **WARNING**

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

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red G = Green BL = Blue BK = Black W = White

• = 120V Power  $\bigcirc$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\stackrel{\text{min}}{}$  = Case Ground

### Excel C2X-XLGEP

Dairy/Delicatessen

**Precut & Packaged Produce** 

### **SHELF CONFIGURATION**

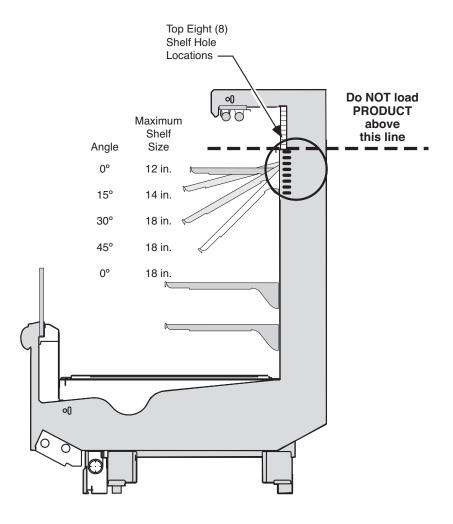
This merchandiser is designed for three shelves.

The depth of the shelf used in the top eight (8) shelf hole locations is critical to case performance.

If a shelf is placed in one of the top eight (8) locations it must comply with the angle/depth requirements listed below.

Shelf Angle	Maximum Shelf Depth
0 °	12 in.
15°	14 in. or less
30 °	18 in. or less
45 °	18 in. or less

**NOTE:** Shelves placed in the lower positions may be up to 18 in. deep when positioned at a 0 ° angle.



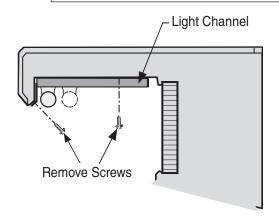
### Excel C2X-XLGEP

Dairy/Delicatessen
Precut & Packaged Produce

The ballast for the canopy and shelf lamps is located behind the canopy on the left-hand end (when facing case) of the merchandiser.

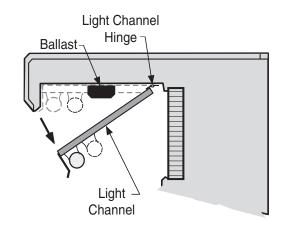
To access the ballast:

1. Remove screws at bottom edge of canopy and rear of light channel.



- 2. Lower light channel which will pivot on hinge.
- 3. Service or replace ballasts as required.
- 4. Reassemble items as they were originally installed.

**NOTE**: Rail lamp ballast is located in the electrical raceway.



### **CANOPY ANTI-SWEAT HEATER**

The canopy anti-sweat heater location is shown below. Connections are in the electrical wireway.

