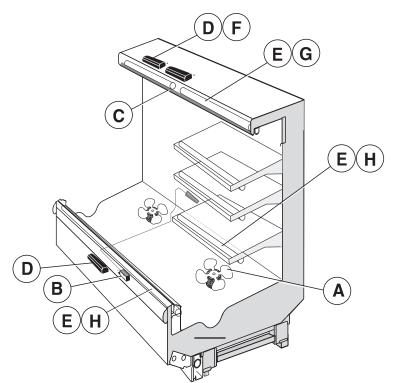
# HUSSMANN<sup>®</sup> *Excel*





# C2X-XLEP

Technical Data Sheet
P/N 0466005\_U
NSF® Certified
April 2017

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	Part #	Description	Wiring Iter	n #	Item	Part #	Description	Wiring Item #
FAN A	ASSEMBLIES				LAMP	S AND BALLA	STS	
4 Ft,	8 Ft & 12 Ft				D.	Ballast, Ele	ctronic	(4)
A.	7W Standard	<b>Energy Efficient</b> Fa	n Assembly	(1)		0480130	2 lamps (BA.4481676	5)
	0477654	Fan Motor, Evapo	orator			0480131	3 lamps (BA.4481654	4)
		(MO.4410545)				0480132	4 lamps (BA.448167'	7)
	0142780	Fan Blade (FB.014	2780)		E.		Fluorescent Lamp	(5)
6 Ft (	Only	· ·	,				Replace with like fixti	
A.	4W Standard	<b>Energy Efficient</b> Fa	n Assembly	(1)			·	
	0477653	Fan Motor, Evapo	orator		LED	FIXTURES AND	D POWER SUPPLY	
		(MO.4410544)			F.	0501213	Power Supply (EP.4	481861) (6)
	0382383	Fan Blade (FB.478	0617)		G.		LED Canopy Fixtur	re (7)
		•	ŕ				Replace with like fixti	ures
THER	MOSTATS				Н.		LED Shelf Fixture	(8)
B.	Optional Adju	ustable Refrigeratio	n Thermostat	(2)			Replace with like fixti	ures

Data sheet-Excel-C2X-XLEP

0512499

0512500

0512501

0512503

**HEATERS** 

C.

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

Canopy Anti-Sweat Heater

4 ft (HE.4851174)

6 ft (HE.4851175)

8 ft (HE.4851176)

12 ft (HE.4851178)

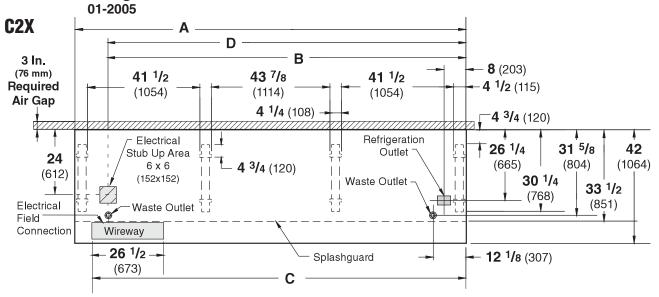
# Engineering

# 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).



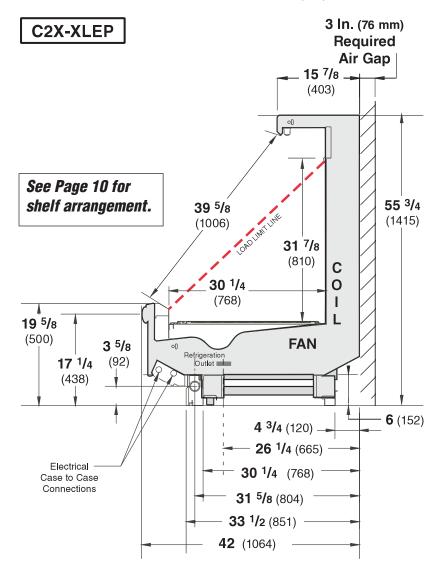
NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

**FRONT** 

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (without ends or partitions)	48 <sup>3</sup> / <sub>8</sub> (1229)	72 3/8 (1838)	96 <sup>3</sup> / <sub>8</sub> (2448)	144 <sup>1</sup> / <sub>2</sub> (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	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	n point)			
<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 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)				
(D) RH End of case to the center of LH waste outlet	36 <sup>1</sup> / <sub>4</sub> (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 <sup>1</sup> / <sub>8</sub> (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>	C2X-XGEP		
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-XLEP

#### 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-XLEP§ Dai	iry/Deli	/Prod	uce Me	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.					

§ 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.

Btulhrlft — Unlit Shelves ‡

C2X-XLEP	Dairy/Deli/Produce	Meat
PARALLEL		
4 ft/8 ft/12 ft 90	00 879	924
6 ft	882	927
CONVENTIONAL	ı	
4 ft/8 ft/12 ft	939	989
6 ft	942	992

<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-XLEP

Frequency (hr)	12
Defrost Water (lb/ft/day)	6

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

OFFTIME	C2X-XLEP
Time (minutes)	30

ELECTRIC OR GAS Not Recommended

#### **CONVENTIONAL CONTROLS**

**Low Pressure Backup Control** 

C2X-XLEP Dairy/Deli/Produce Meat

**CI/CO\*** 19°F / 9°F 16°F / 6°F

Indoor Unit Only, Pressure Defrost Termination\* 48°

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

# Excel C2X-XLEP Dairy/Delicatessen **Precut & Packaged Produce**

Electrical Data	

Electrical Data								
	4 ft	6 ft	8 ft	12 ft				
Number of Fans—7W	1	_	2	3				
Number of Fans—4W	_	2	_					
	4.0		peres	40.0	4.0.		atts	40.0
T T	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Evaporator 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				
230 V 30112 Export	0.40	0.50	0.70	1.04				
Maximum Over Current Protection 120V	20	20	20	20				
Maximum Over Current Protection 230V	15	15	15	15				
With Mind of the Carrent Protection 2007	10	15	10	10				
Anti-sweat Heaters								
120V 50/60Hz Standard	0.10	0.15	0.20	0.30	12	18	24	36
		****						
Standard Lighting (T-8 Fluorescent)								
1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	85
			_					
ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIA	NT WITH T	HE U.S. D	EPT. OF E	NERGY (DOI	E) 2017 REG	ULATION A	ARE AVAIL	ABLE FOR
SALE FOR USE IN THE U.S.A.								
Optional Lighting (T-8 Fluorescent)								
Additional 1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	85
1 Row Rail Light	0.26	0.51	0.51	0.77	30	59	59	85
3 Rows of Shelves	0.77	1.53	1.53	2.31	59	177	177	255
3 Rows of Bhorves	0.77	1.55	1.55	2.31	37	1//	1//	233
EcoShine II Canopy								
1 Row Canopy — EcoShine II	0.16	0.24	0.32	0.48	19.3	28.9	38.6	58.0
1 Row Canopy — EcoShine II HO	0.20	0.29	0.39	0.59	23.5	35.2	47.0	70.6
EcoShine II Rail Light —1 Row	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7
EcoShine II Shelf	0.16	0.22	0.22	0.40	10.0	20.2	20. 7	50.3
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

<sup>120</sup>V 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 + Optional Rail 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-XLEP Dairy/Delicatessen Precut & Packaged Produce

#### **Product Data**

 Recommended Usable Cube ¹ (Cu FtlFt)
 3.62 ft³/ft (0.34 m³/m)

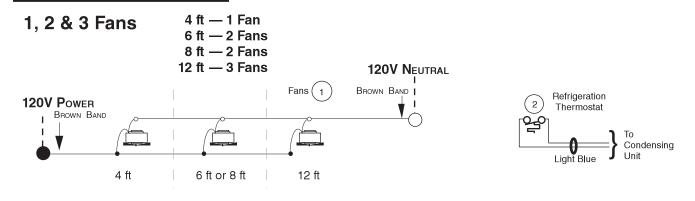
 AHRI Total Display Area ² (Sq FtlFt)
 3.33 ft²/ft (1.01 m²/m)

 Shelf Area ³ (Sq FtlFt)
 6.38 ft²/ft (1.94 m²/m)

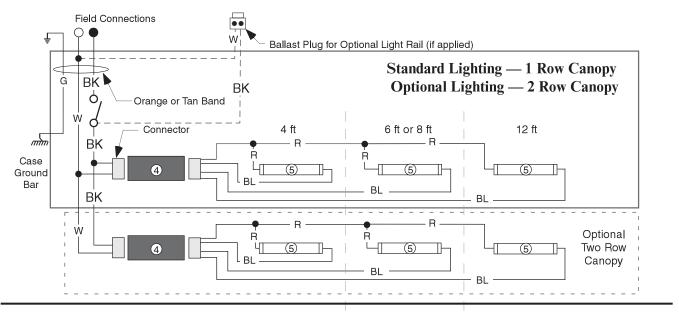
- 1 AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
- <sup>2</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]
- <sup>3</sup> Shelf surface area is composed 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)

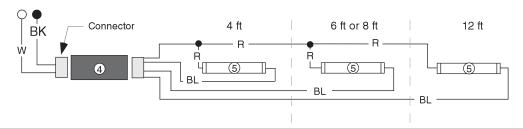
## Fan Wiring Offtime Defrost



### **Light Circuits**



#### Optional Lighting — 1 Row Rail



#### WARNING

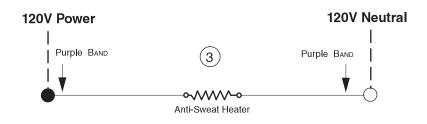
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

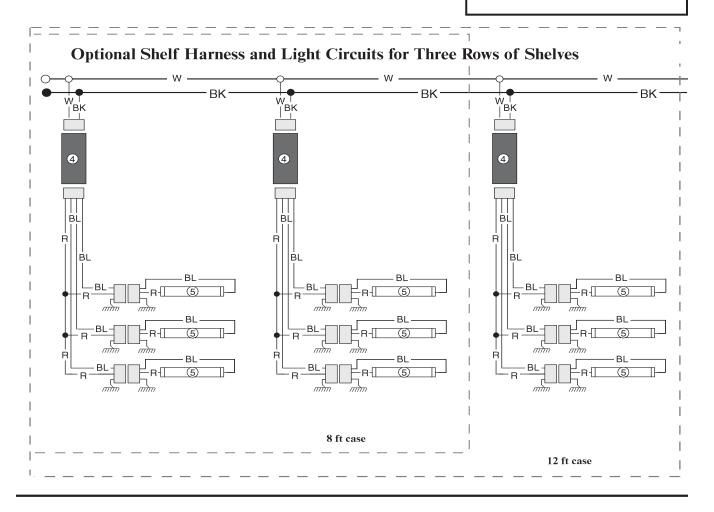
$$R = Red \quad Y = Yellow \quad G = Green \quad BL = Blue \quad BK = Black \quad W = White$$

$$\bullet = 120V \quad Power \quad \bigcirc = 120V \quad Neutral \quad \stackrel{\bot}{=} = Field \quad Ground \quad \overrightarrow{mm} = Case \quad Ground$$

## Canopy Anti-Sweat Heater



# Optional Shelf Lighting Fluorescent Fixtures



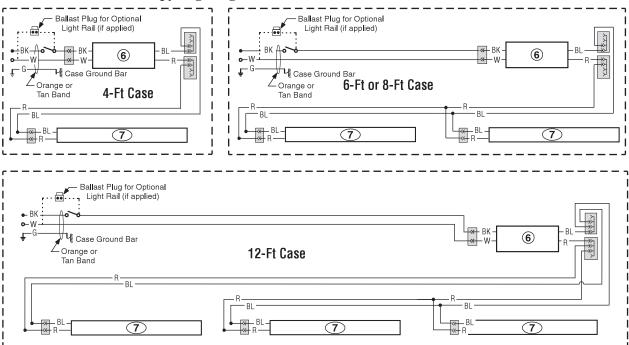
#### **WARNING**

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

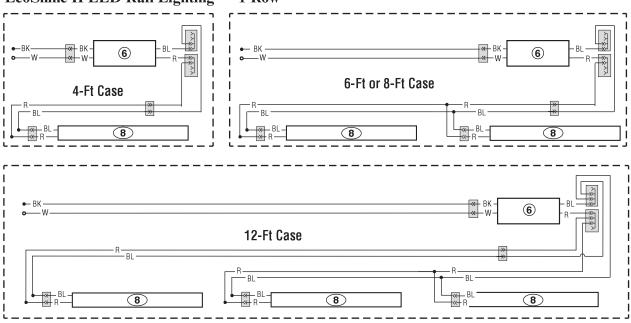
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

# Optional Canopy and Rail Light Circuits — LED Fixtures

#### EcoShine II LED Canopy Lighting — 1 Row



#### EcoShine II LED Rail Lighting — 1 Row



#### WARNING

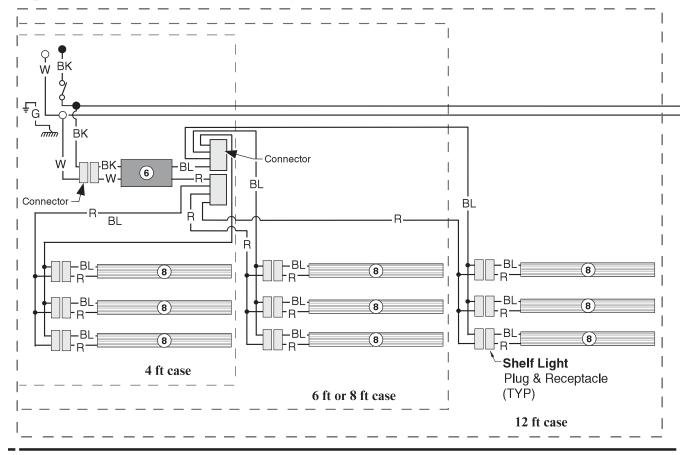
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

# Optional Shelf Lighting LED Fixtures

## 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

## Excel C2X-XLEP

Dairy/Delicatessen

**Precut & Packaged Produce** 

#### **SHELF CONFIGURATION**

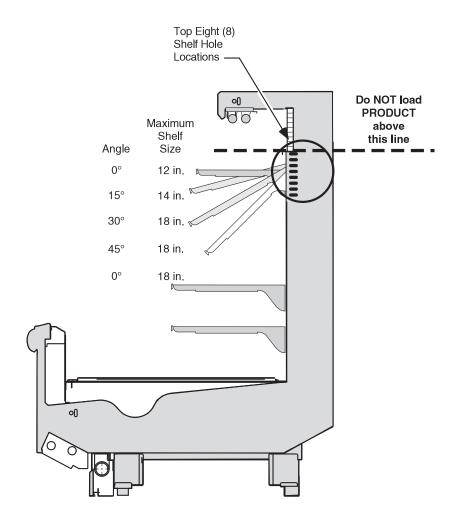
This merchandiser is designed for two or three shelves.

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.

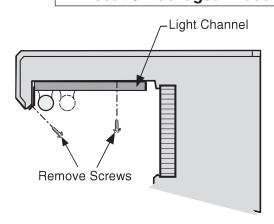


# Excel C2X-XLEP Dairy/Delicatessen Precut & Packaged Produce

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

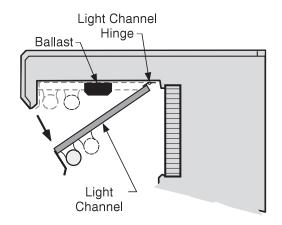
To access the ballast:

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.

