# HUSSMANN<sup>®</sup> *Excel*



Technical Data Sheet
P/N 0466000\_P

NSF® Certified

C2X-LGE

April 2017 **DOE 2017** 

Energy Efficiency Compliant



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

Wiring Item #

(5)

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.

> 2 lamps (BA.4481676) 3 lamps (BA.4481654)

Description

E G
FH
В
D $F$
E C A
601

#### FAN ASSEMBLIES

Item Part#

8 Ft & 12 Ft
A 7W Standard Energy I

A. **7W Standard Energy Efficient** Fan Assembly (1) 0477654 Fan Motor, Evaporator

**Description** 

D.		Canopy Anti-Sweat Heater	(4)
051	2500	6 ft (HE.4851175)	
051	2501	8 ft (HE.4851176)	
051	2503	12 ft (HE.4851178)	

Data sheet-Excel-C2X-LGE

4 lamps (BA.4481677) (MO.4410545) 0480132 0142780 Fan Blade (FB.0142780) F. Fluorescent Lamp (6)Replace with like fixtures 6 Ft Only A. **4W Standard Energy Efficient** Fan Assembly 0477653 Fan Motor, Evaporator LED FIXTURES AND POWER SUPPLY (MO.4410544) G. 0501213 Power Supply (EP.4481861) (7) Fan Blade (FB.4780617) 0382383 LED Canopy Fixture Η. (8)Replace with like fixtures **THERMOSTATS** LED Shelf Fixture I. (9)B. 0411744 Standard Non-adjustable (2) Replace with like fixtures Defrost Thermostat (CT.0411744) C. Optional Adjustable Refrigeration Thermostat (3) **HEATERS** 

Item Part #

LAMPS AND BALLASTS

0480130

0480131

E. Ballast, Electronic

Wiring Item #

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

#### **Engineering**

#### **Plan Views**

PHYSICAL DATA

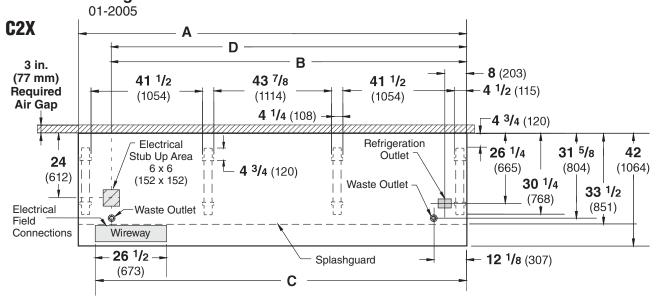
Merchandiser Drip Pipe (in.) 1 1/4

Merchandiser Liquid Line (in.) 3/8

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.

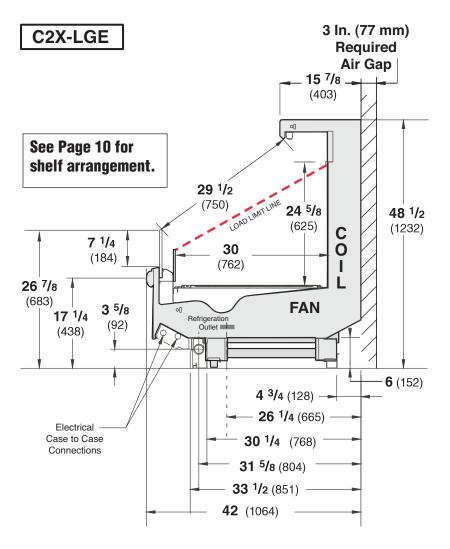
**FRONT** 

	6 ft	8 ft	12 ft
General			
(A) Case Length (without ends or partitions)	72 3/8 (1838)	96 3/8 (2448)	144 1/2 (3670)
(Each end and insulated partition adds $1^{-1}/2$ in. (38 mm) to case line up.)			
Maximum O/S dimension of case back to front			
(includes bumper)	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)
Back of case to O/S edge of front leg	30 1/4 (768)	30 1/4 (768)	30 1/4 (768)
Distance between edges of external legs and center legs	29 1/2 (750)	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	NA	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
Electrical Service (Electrical Field Wiring connection point)			
<b>(B)</b> RH End of case to center of stub up area	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)
Length of electrical wireway Wireway	26 1/2 (673)	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	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	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)
Back O/S of case to center of waste outlets	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)
Refrigeration Outlet			
Back of case to center of refrigeration outlet	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)



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.

Estimated Charge **		C2X	K-LGE
6 ft	1.6	26 oz	0.7 kg
8 ft	2.3	37 oz	1.0 kg
12 ft	3.3	53 oz	1.5 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-LGE 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-LGE
27
21
19

§ 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-LGE	Parallel	Conventional
8 ft/12 ft	934	1029
6 ft	937	1032

<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-LGE

Frequency (hr)	6
Defrost Water (lb/ft/day)	6
(±15% based on case configur	ration and
product loading.)	

OFFTIME	C2X-LGE
Temp Term °F	48°F
Failsafe Minutes	30

ELECTRIC OR GAS Not Recommended

#### Standard Defrost Thermostat

Close on rise: close 48°F – open 33°F

#### **CONVENTIONAL CONTROLS**

**Low Pressure Backup Control** 

C2X-LGE

**CI/CO\*** 14 / 4°F

**Indoor Unit Only, Pressure Defrost** 

**Termination\*** 48°F

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

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

		T 4
HILDE	trical	Data
	uicai	Data

	f Fans—7W f Fans—4W	6 ft - 2	8 ft 2 —	12 ft 3			
			Amperes			Watts	
		6 ft	8 ft	12 ft	6 ft	8 ft	12 ft
Evaporato	or Fan						
120V	50/60Hz Standard Energy Efficient	0.24	0.38	0.57	16	28	42
230V	50/60Hz Standard Energy Efficient	0.12	0.20	0.30	16	28	42
230V	60Hz Export	0.30	0.50	0.75	48	78	117
230V	50Hz Export	0.36	0.56	0.84	54	84	126
Minimum	Circuit Ampacity †						
120V	50/60Hz Standard Energy Efficient	0.44	0.58	0.77			
230V	50/60Hz Standard Energy Efficient	0.32	0.40	0.50			
230V	60Hz Export	0.50	0.70	0.95			
230V	50Hz Export	0.56	0.76	1.04			
Maximun	o Over Current Protection 120V	20	20	20			
Maximun	Over Current Protection 230V	15	15	15			
Anti-swea	t Heaters						
120V	50/60Hz Standard	0.15	0.20	0.30	18	24	36
Ctanda1	Lighting (T. 9 Elmanasana)						
	<b>Lighting (T-8 Fluorescent)</b> Canopy	0.51	0.51	0.77	59	59	85

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	0.51	0.51	0.77	59	59	85
1 Row Rail Light	NA — Glass f	ront does	not accept rail light			
2 Rows of Shelves	1.02	1.02	1.54	118	118	170
EcoShine II Canopy						
1 Row Canopy — EcoShine II	0.26	0.32	0.48	31.6	38.6	58.0
1 Row Canopy — EcoShine II HO	0.33	0.44	0.66	39.5	53.0	79.4
EcoShine II Shelf						
2 Rows of Shelves	0.23	0.33	0.49	28.2	39.5	59.3

<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

<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-LGE Dairy/Delicatessen Precut & Packaged Produce

#### **Product Data**

 Recommended Usable Cube ¹ (Cu Ft/Ft)
 3.07 ft³/ft (0.29 m³/m)

 AHRI Total Display Area ² (Sq Ft/Ft)
 2.90 ft²/ft (0.88 m²/m)

 Shelf Area ³ (Sq Ft/Ft)
 5.02 ft²/ft (1.53 m²/m)

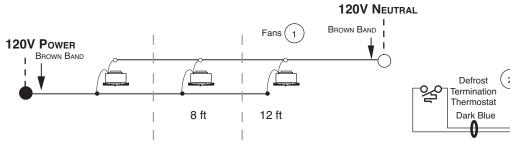
- 1 AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
- <sup>2</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]
- <sup>3</sup> Shelf surface area is composed 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 and (1) row of 18-inch shelf.

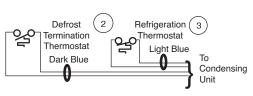
ESTIMATED SHIPPING WEIGHT 4					
Case				Solid End	
	6 ft	8 ft	12 ft	(each)	
<b>lb</b> (kg)	800 (363)	1000 (454)	1200 (544)	75 (34)	
<sup>4</sup> Actual weights will vary according to optional kits included.					

### Fan Wiring Offtime Defrost

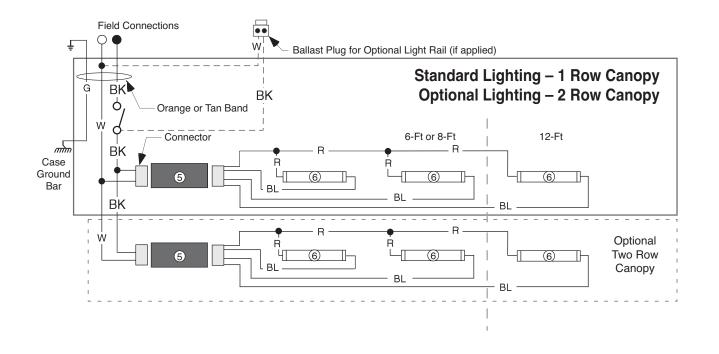
#### 2 & 3 Fans

8 ft - 2 Fans 12 ft - 3 Fans





#### **Canopy Light Circuits — Fluorescent Fixtures**



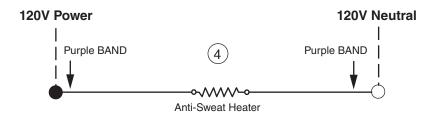
#### **WARNING**

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

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

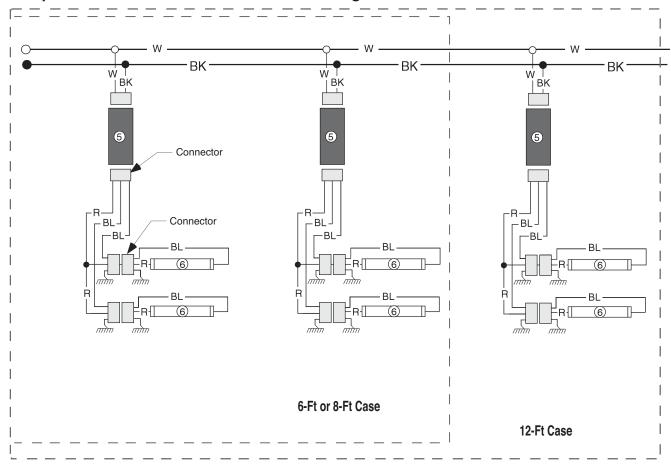
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White  $\bullet$  = 120V Power  $\bigcirc$  = 120V Neutral  $\bot$  = Field Ground  $\longrightarrow$  = Case Ground

#### Canopy Anti-Sweat Heater



Optional Shelf Lighting Fluorescent Fixtures

#### Optional Shelf Harness and Fluorescent Light Circuits for Two Rows of Shelves



#### **WARNING**

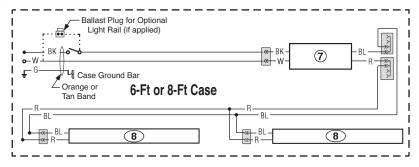
All components must have mechanical ground, and the merchandiser must be grounded.

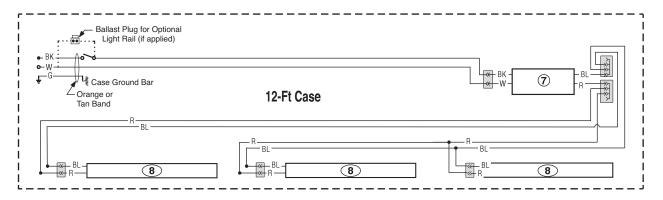
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

#### **EcoShine II LED Canopy Lighting – 1 Row**





#### **WARNING**

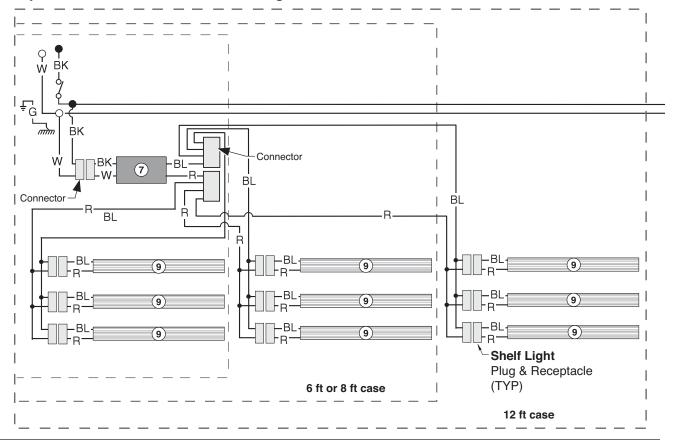
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

• = 120V Power  $\bigcirc$  = 120V Neutral  $\frac{1}{7}$  = Field Ground  $\frac{1}{1000}$  = 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

• = 80V Power  $\bigcirc$  = 80V Neutral  $\bot$  = Field Ground mm = Case Ground

#### Excel C2X-LGE

Dairy/Delicatessen

**Precut & Packaged Produce** 

#### SHELF CONFIGURATION

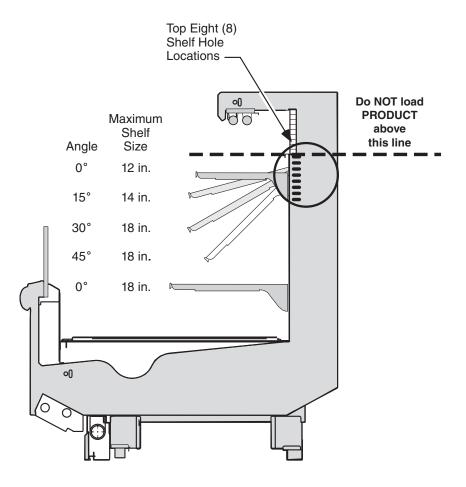
This merchandiser is designed for one or two shelves.

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-LGE Dairy/Delicatessen Precut & Packaged Produce

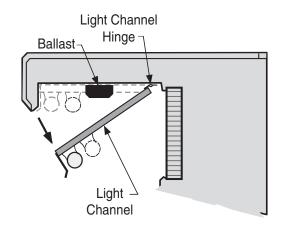
The ballast for the canopy and shelf lamps is located behind the canopy on the left-hand end (when facing case) of the merchandiser.

To access the ballast:

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

  Remove Screws
- 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.

