# HUSSMANN<sup>®</sup> *Excel*

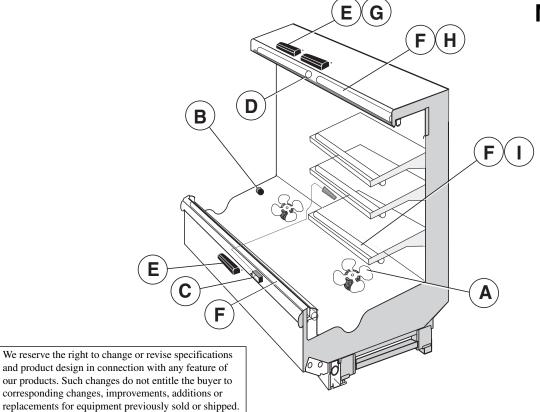


#### C2X-XLE

Technical Data Sheet P/N 0466004\_J

NSF® Certified

March 2010



Item	Part #	Description	Wiring Item #	Item	Part#	Description Wir	ing Item#
FAN A	ASSEMBLIES			НЕАТ	ERS		
8 Ft &	& 12 Ft			D.		Canopy Anti-Sweat Hea	ter (4)
A.	7W Standard	Fan Assembly	(1)		<u>0512501</u>	8 ft ( <u>HE.4851176</u> )	
	0058698	Fan Motor, Evaporat	or		0512503	12 ft ( <u>HE.4851178</u> )	
		(MO.4410102)					
	0142780	Fan Blade (FB.01427	80)	LAMP	s & Ballasts	<b>;</b>	
	7W Energy E	fficient Fan Assembly	(1)	E.	Ballast, Elec	etronic	(5)
	0477654	Fan Motor, Evaporat	or		0480130	2 lamps (BA.4481676)	
		(MO.4410545)			0480131	3 lamps (BA.4481654)	
	0142780	Fan Blade (FB.01427	80)		0480132	4 lamps (BA.4481677)	
				F.		Fluorescent Lamp	(6)
THER	MOSTATS					Replace with like fixtures	
B.	0411744	Standard Non-adjust	able (2)			·	
		Defrost Thermostat		LED	FIXTURES AND	POWER SUPPLY	
		(CT.0411744)		G.	0501213	Power Supply (EP.44818	61) (7)
				H.		LED Canopy Fixture	(8)
C.	Optional Adju	stable Refrigeration 7	Thermostat (3)		Replace with	like fixtures — See Page 5.	
		-		I.	-	LED Shelf Fixture	(9)
					Replace with	like fixtures — See Page 5.	

Note: Rev. H adds Btu note (page 3), EcoShine LED (page 4) and parts (page 5), and revises canopy wiring diagram (page 6). Other changes marked by bar, underline or circle.



### Engineering Plan Views

PHYSICAL DATA

Merchandiser Drip Pipe (in.) 1 1/4

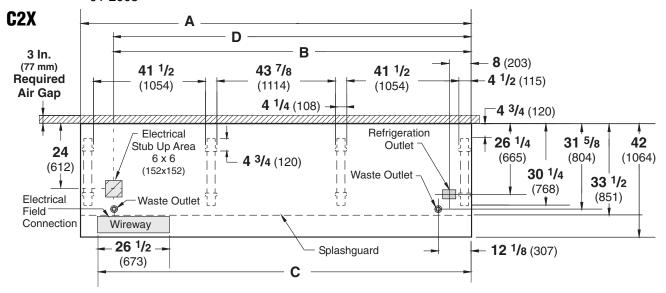
Merchandiser Liquid Line (in.) 3/8

Merchandiser Suction Line (in.) 7/8

#### Dairy/Delicatessen Precut & Packaged Produce

Dimensions shown as inches and (mm).

01-2005



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

**FRONT** 

	8 ft	12 ft
General		
(A) Case Length (without ends or partitions)	96 <sup>3</sup> / <sub>8</sub> (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)
Back of case to front of splashguard	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)
Distance between edges of external legs and center legs	41 1/2 (1054)	41 1/2 (1054)
Distance between edges of center legs	NA	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)	2 3/4 (70)
Electrical Service (Electrical Field Wiring connection point)		
(B) RH End of case to center of stub up area	84 1/4 (2140)	132 3/8 (3363)
Back of case to center of stub up area	24 (612)	24 (612)
Length of electrical wireway Wireway	26 1/2 (673)	26 1/2 (673)
(C) RH End of case to LH end of wireway	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	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)
Back O/S of case to center of waste outlets	31 5/8 (804)	31 5/8 (804)
Schedule 40 PVC drip pipe	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)
RH end of case to center of refrigeration outlet	8 (203)	8 (203)

#### REFRIGERATION DATA

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

	-
Discharge Air °F	29
Evaporator °F	21
Unit Sizing °F	19
Btu/hr/ft <sup>‡</sup> — Unlit Shelve.	s ‡‡
C2X-XLE Parallel	Conventional

Unlit	1175	1260
‡ Optional end	ergy efficient motor	s reduce the
refrigeration l	oad by 21 Btu/hr/ft	•

‡‡ 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-XLE

C2X-XLE

Frequency (hr)	6
Defrost Water (lb/ft/day)	7

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

Offtime	C2X-XLE
Temp Term °F	48°F
Failsafe Minutes	30

ELECTRIC OR GAS Not Recommended

#### **Standard Defrost Thermostat**

Close on rise: close  $48^{\circ}F$  – open  $33^{\circ}F$ 

#### CONVENTIONAL CONTROLS

#### **Low Pressure Backup Control**

C2X-XLE

**CI/CO\*** 14°F / 4°F

#### **Indoor Unit Only, Pressure Defrost**

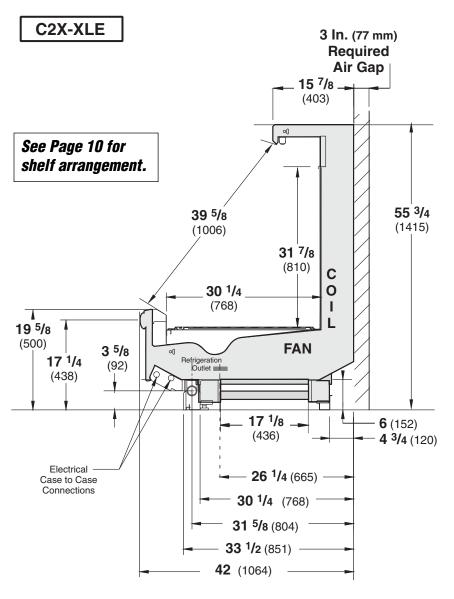
**Termination\*** 48°F

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

<b>Estimated C</b>	harge **	C2X-XGE		
8 ft	2.3	37 oz	1.0 kg	
12 ft	3.3	53 oz	1.5 kg	

\*\*This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

#### Dimensions shown as inches and (mm).



#### **NSF** Certification

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

#### **Electrical Data**

		o it	1210			
Number	of Fans—	7W	2	3		
	Amperes		Wa	itts		
			8 ft	12 ft	8 ft	12 ft
Evaporat	or Fan					
120V	60Hz	Standard	1.00	1.50	78	117
120V	50Hz	Standard	1.10	1.65	84	126
230V	60Hz	Export	0.50	0.75	78	117
230V	50Hz	Export	0.56	0.84	84	126
120V	60Hz	Energy Efficient	0.38	0.57	28	42
230V	60Hz	Energy Efficient	0.20	0.30	28	42
Minimun	n Circuit	Ampacity †				
120V	60Hz	Standard	1.20	1.70		
120V	50Hz	Standard	1.30	1.85		
230V	60Hz	Export	0.70	0.95		
230V	50Hz	Export	0.76	1.04		
120V	60Hz	Energy Efficient	0.58	0.77		
230V	60Hz	Energy Efficient	0.40	0.50		
Maximur	n Over C	urrent Protection 120V	20	20		
Maximur	n Over C	urrent Protection 230V	15	15		
Anti-swea	at Heaters	s				
120V	50/60H	z Standard	0.20	0.30	24	36
Standard	Lighting	(T-8 Fluorescent)				
1 Row	Canopy		0.51	0.77	59	85
Optional	Lighting	(T-8 Fluorescent)				
Additio	nal 1 Row	/ Canopy	0.51	0.77	59	85
1 Row	Rail Light		0.51	0.77	59	85
3 Rows	of Shelve	es	1.53	2.31	177	255
Optional	EcoShine	LED Lighting — CRI				
2 Row	Canopy		0.55	0.83	66	98
3 Row	of Shelves	3	0.58	0.88	70	105
Optional	EcoShine	LED Lighting — High CRI				
2 Row	Canopy		0.63	0.93	75	112
3 Rows	of Shelve	es	0.70	1.05	84	126
Optional A	Always*B	right LED Lighting				
2 Row			0.71	1.08	85	130
3 Row	of Shelves	3	0.74	1.11	89	133

8 ft

12 ft

<sup>120</sup>V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting 230V 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.

#### **Product Data**

Recommended Usable Cube <sup>1</sup> (Cu Ft/Ft)

AHRI Total Display Area <sup>2</sup> (Sq Ft/Ft)

Shelf Area <sup>3</sup> (Sq Ft/Ft)

3.62 ft<sup>3</sup>/ft (0.34 m<sup>3</sup>/m) 3.50 ft<sup>2</sup>/ft (1.07 m<sup>2</sup>/m) 6.38 ft<sup>2</sup>/ft (1.94 m<sup>2</sup>/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 <sup>4</sup>				
Case			Solid End	
	8 ft	12 ft	(each)	
<b>lb</b> ( <i>kg</i> )	1000 (454)	1200 (544)	75 (34)	
<sup>4</sup> Actual weights will vary according to optional kits included.				

Item	Part #	Desc	ription			Item	Pa	rt # Des	cription	
LED	FIXTURES A	ND POWE	R SUPPLY							
G.	0501213	Pow	er Supply	(EP.4481861)	(7)	1	EcoShine 4441590		lf Fixture 2900K HCRI	(9)
H.	<b>EcoShine</b>	LED Ca	nopy Fixt	ure	(8)		4441591	48-inch	<b>3500K</b> HCRI	
	4441720	Front	48-inch	<b>2900K</b> HCR	EI		4441592	48-inch	3500K	
	4441722	Front	48-inch	3500K HCR	eI.		4441593	48-inch	4100K	
	4441724	Front	48-inch	3500K						
	4441726	Front	48-inch	4100K						
	4441721	Rear	48-inch	<b>2900K</b> HCR	E					
	4441723	Rear	48-inch	3500K HCR	E					
	4441725	Rear	48-inch	3500K						
	4441727	Rear	48-inch	4100K						

### Fan Wiring Offtime Defrost

#### 2 & 3 Fans

120V Power Brown Band 8 ft — 2 Fans
12 ft — 3 Fans

120V Neutral

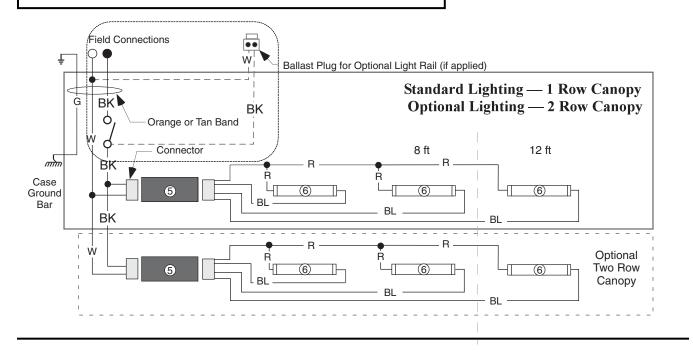
Fans 1 Brown Band I

Defrost 2

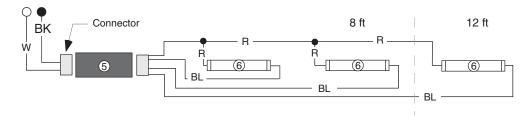
Termination
Thermostat

12 ft

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



#### 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 Y = Yellow G = Green BL = Blue BK = Black W = White

• = 120V Power  $\bigcirc$  = 120V Neutral

= CASE GROUND

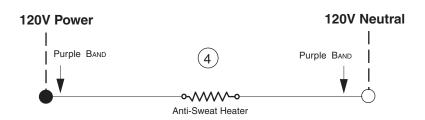
Refrigeration 3

Light Blue

Dark Blue

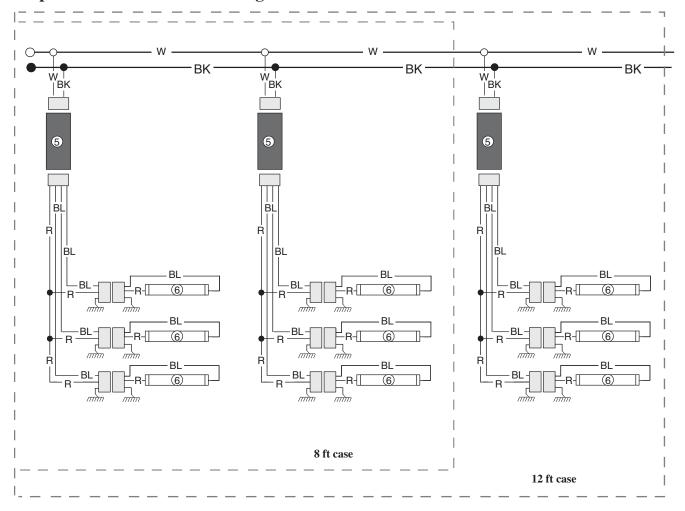
To

Condensing



#### Optional Shelf Lighting Fluorescent Fixtures

#### **Optional Shelf Harness and Light Circuits for Three Rows of Shelves**



#### WARNING

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

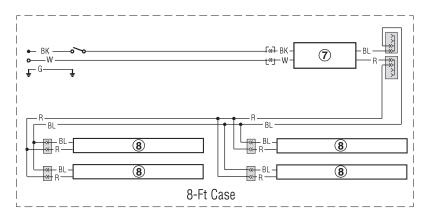
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

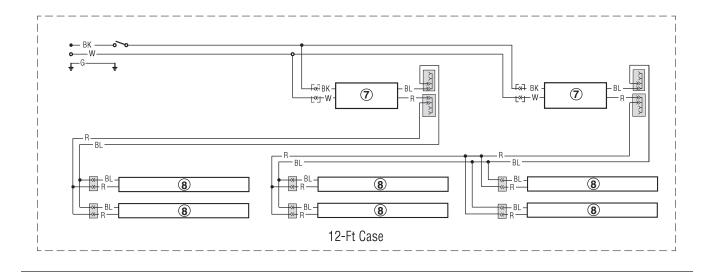
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

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

### Optional Canopy Lighting LED Fixtures

#### Standard LED Canopy Lighting — 2 Row Canopy





#### WARNING

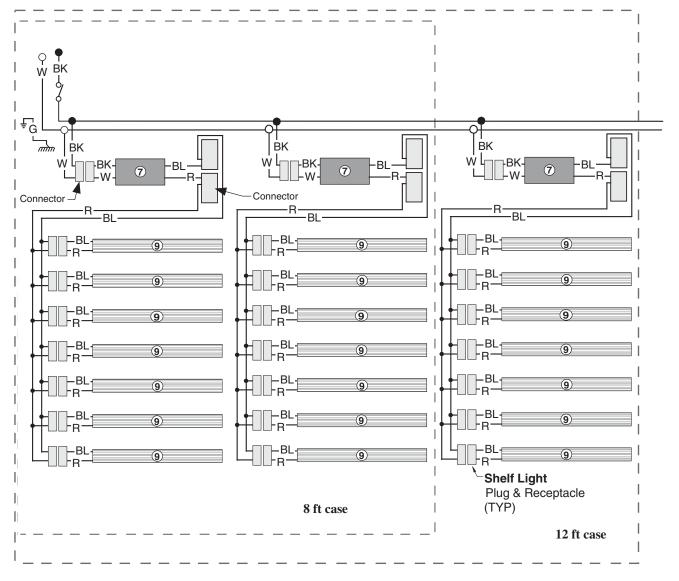
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

#### Optional Shelf Harness and LED Light Circuits for 3, 4, 5, 6 & 7 Rows of Shelves



#### WARNING

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

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

#### **SHELF CONFIGURATION**

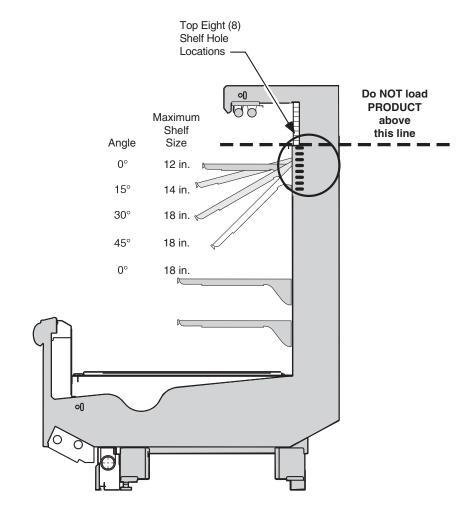
This merchandiser is designed for two or three shelves.

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

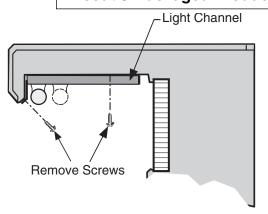
**NOTE:** Shelves placed in the lower positions may be up to 18 in. deep when positioned at a 0 ° angle.



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

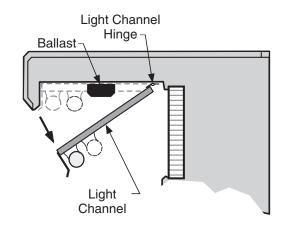
To access the ballast:

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.

