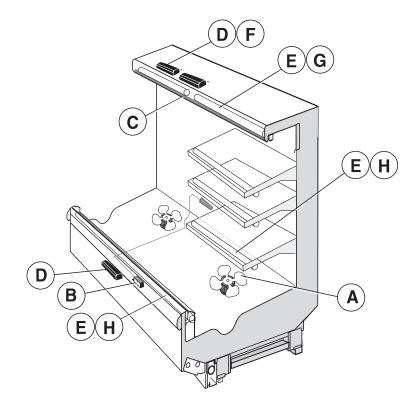
HUSSMANN® Excel



Technical Data Sheet P/N 0539998_F **NSF®** Certified **April 2017**

C2NX-XLP

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 Ite	m #	Item	Part #	Description	Wiring 1	Item#
FAN ASSEMBLIES				LAMP	S AND BALLAS			
4 Ft, 8 Ft & 12 I	Ft			D.	Ballast, Ele	ctronic		(4)
A. 7W Stand	lard Energy Efficient l	Fan Assembly	(1)		0508087	1 lamp (BA.448	32491)	
0477654	Fan Motor, Evapo	rator			0480130	2 lamps (BA.44	81676)	
	(MO.4410545)				0480131	3 lamps (BA.44	81654)	
0142780	Fan Blade (FB.014	2780)			0480132	4 lamps (BA.44	81677)	
6 Ft Only				E.		Fluorescent La	mp	(5)
A. 4W Stand	lard Energy Efficient l	Fan Assembly	(1)			Replace with lik	e fixtures	
0477653	Fan Motor, Evapo	rator						
	(MO.4410544)			LED	FIXTURES ANI	POWER SUPPLY		
0382383	Fan Blade (FB.478	30617)		F.	0501213	Power Supply ((EP.4481861)	(6)
				G.		LED Canopy F	ixture	(7)
THERMOSTATS						Replace with lik	e fixtures	
B. Optional A	Adjustable Refrigeration	Thermostat	(2)	H.		LED Shelf Fixt	ture	(8)
_						Replace with lik	e fixtures	
HEATERS								
C. 0512499	Canopy Anti-Sw	eat Heater	(3)					
	4 ft (HE.4851)	174)						
0512500	6 ft (HE.4851	175)						
0512501	8 ft (HE.4851	176)						
0512503	12 ft (HE.4851	178)						

Data sheet-Excel C2NX-XLP

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

Engineering Plan Views

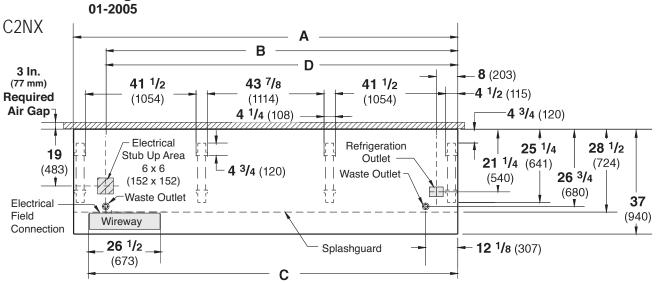
PHYSICAL DATA $1^{1/4}$ Merchandiser Drip Pipe (in.) 3/8

7/8

Merchandiser Liquid Line (in.) Merchandiser Suction Line (in.)

Dairy/Delicatessen **Precut & Packaged Produce**

Dimensions shown as inches and (mm).



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

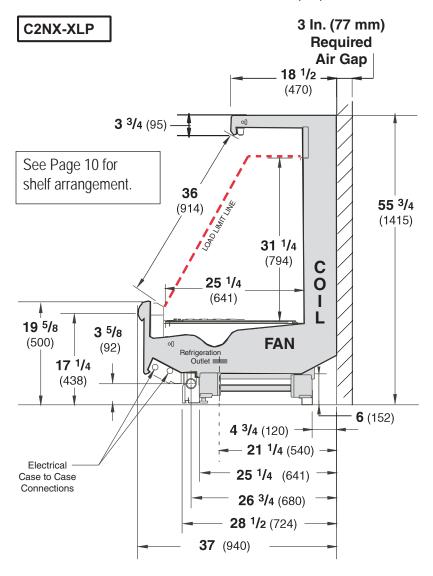
_	_	N.	T

	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 1 /2 in. (38 mm) to case	line up.)			
Maximum O/S dimension of case back to front				
(includes bumper)	37 (940)	37 (940)	37 (940)	37 (940)
Back of case to front of splashguard	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)
Back of case to O/S edge of front leg	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)	25 1/4 (641)
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 p				
(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	19 (483)	19 (483)	19 (483)	19 (483)
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 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	26 ³ / ₄ (680)	26 3/4 (680)	26 3/4 (680)	26 ³ / ₄ (680)
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	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)	21 1/4 (540)
RH end of case to center of refrigeration outlet	8 (203)	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 C	Charge **	C2N	X-XLP
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

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

Excel C2NX-XLP

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.

C2NX-XLP§	Da	iry/Deli/	/Produ	ice	M	eat
		Unlit	Lit	UN	ILIT	LIT
Discharge Air	°F	33	31	3	30	28
Evaporator °F		28	26	2	25	23
Unit Sizing °F		26	24	2	23	21
§ Average evap	ora	tor temp	peratu	re sh	owi	n. Use

§ 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 ‡

C2NX-XLP	Dairy/Deli/Produce	Meat
PARALLEL		
Unlit	954	1004
CONVENTIONA	L	
Unlit	995	1048

[‡] Add 10 Btu/hr/ft *per shelf row* for LED fixtures. Add 20 Btu/hr/ft *per shelf row* for fluorescent lamps.

DEFROST DATA

C2NX-XLP

C2NX-XLP Dairy/Deli/I	Produce	Meat
Frequency (hr)	8	12
Defrost Water (lb/ft/day)	6	

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

OFFTIME	C2NX-XLP
Time (minutes)	30

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS

Low Pressure Backup Control

C2NX-XLP Dairy/Deli/Produce Meat

CI/CO* 19°F / 9°F 16°F / 6°F

Indoor Unit Only, Pressure Defrost Termination*48°F

*Use a Temperature Pressure Chart to determine PSIG conversions.

Excel **C2NX-XLP**Dairy/Delicatessen Precut & Packaged Produce

Floo	trical	Data
raec	uricai	Hala

			4 ft	6 ft	8 ft	12 ft			
Number of	of Fans—7W		1	_	2	3			
Number o	of Fans—4W		_	2	_	_			
			Amp	eres		Wa	itts		
		4ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Evaporat	or 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	n 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				
Maximun	n Over Current Protection 120V	20	20	20	20				
Maximun	n Over Current Protection 230V	15	15	15	15				
Anti-swea	at Heaters								
120V	50/60Hz Standard	0.10	0.15	0.20	0.30	12	18	24	36
Standard	Lighting (T-8 Fluorescent)								
1 Row	= =	0.26	0.51	0.51	0.77	30	59	59	85
ONLY LIG	HTING CONFIGURATIONS THAT ARE COMPLI	ANT WITH T	HE U.S. D	ерт. об Е	NERGY (DO	E) 2017 REG	ULATION A	ARE AVAIL	ABLE FOR
SALE FOR	USE IN THE U.S.A.								
Optional	Lighting (T-8 Fluorescent)								
Additio	nal 1 Row Canopy	0.26	0.51	0.51	0.77	30	59	59	85
1 Row 1	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	90	177	177	255
EcoShine	ІІ НО								
1 Row	Canopy	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4
	II Rail Light								
1 Row		0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7

1 ft

6 ft

12 ft

Q ft

0.16

0.25

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.

0.23

0.35

0.33

0.49

0.49

0.74

19.8

29.7

42.3

EcoShine II Shelf 2 Rows of Shelves

3 Rows of Shelves

39.5

59.3

59.3

89.0

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

¹²⁰V LED Lighting Circuit Total = Canopy Lighting + Shelf Lighting + Optional Rail Lighting

²³⁰V Lighting Circuit Total = Multiply 120V Lighting Circuit Total by 0.52

 $[\]dagger$ MCA does not include Canopy A/S Heaters because heaters are wired separately from fans.

Excel **C2NX-XLP**Dairy/Delicatessen Precut & Packaged Produce

Product Data

Recommended Usable Cube ¹ (Cu Ft/Ft)

AHRI Total Display Area ² (Sq Ft/Ft)

Shelf Area ³ (Sq Ft/Ft)

 $\begin{array}{l} 3.62 \; ft^3 / ft \;\; (0.34 \; m^3 / m) \\ 3.33 \; ft^2 / ft \;\; (1.01 \; m^2 / m) \\ 6.38 \; ft^2 / ft \;\; (1.94 \; m^2 / m) \end{array}$

- 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 (1) row of 12-inch shelf, (1) row of 16-inch shelf and (1) row of 18-in shelf.

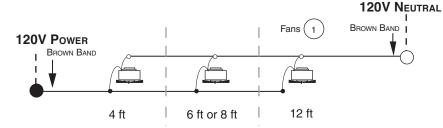
		ES	STIMATED SHIP	PING WEIGHT ⁴	
Case					Solid End
	4 ft	6 ft	8 ft	12 ft	(each)
lb (<i>kg</i>)	600 (272)	800 (363)	1000 (454)	1200 (544)	75 (34)

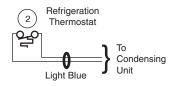
Fan Wiring Offtime Defrost

1, 2 & 3 Fans

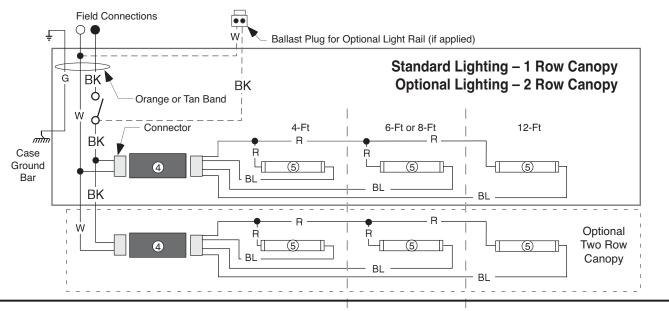
6 ft - 2 Fans 8 ft - 2 Fans

12 ft - 3 Fans

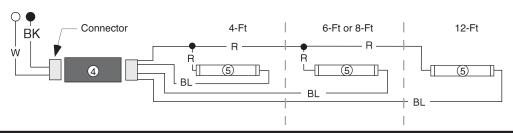




Light Circuits



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 Y = Yellow G = Green

BL = Blue BK = Black

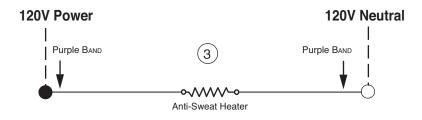
ck W = White

● = 120V Power ○ = 120V Neutral

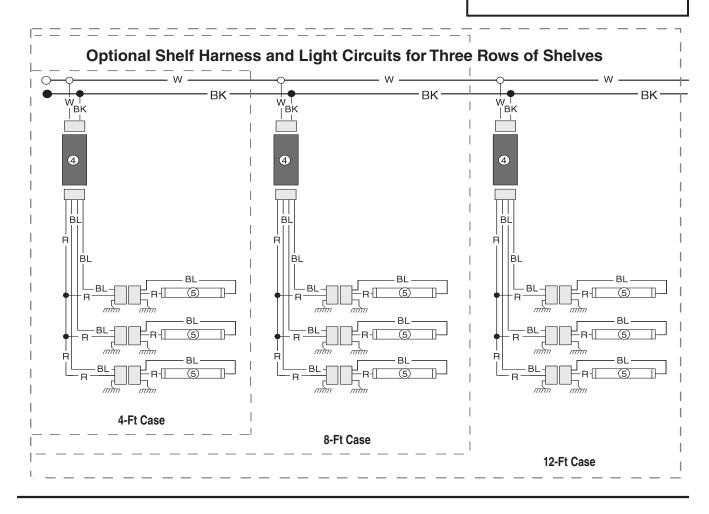
⊥ = FIELD GROUND

mm = Case Ground

Canopy Anti-Sweat Heater



Optional Shelf Lighting Fluorescent Fixtures



WARNING

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

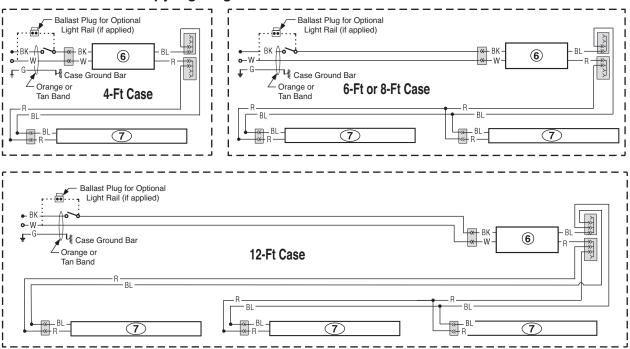
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

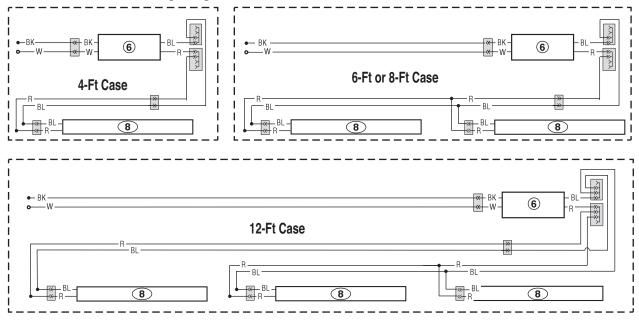
• = 120V Power
$$\bigcirc$$
 = 120V Neutral \bot = Field Ground \longrightarrow = Case Ground

Optional Canopy and Rail Light Circuits — LED Fixtures

EcoShine II LED Canopy Lighting - 1 Row



EcoShine II LED Rail Lighting - 1 Row



WARNING

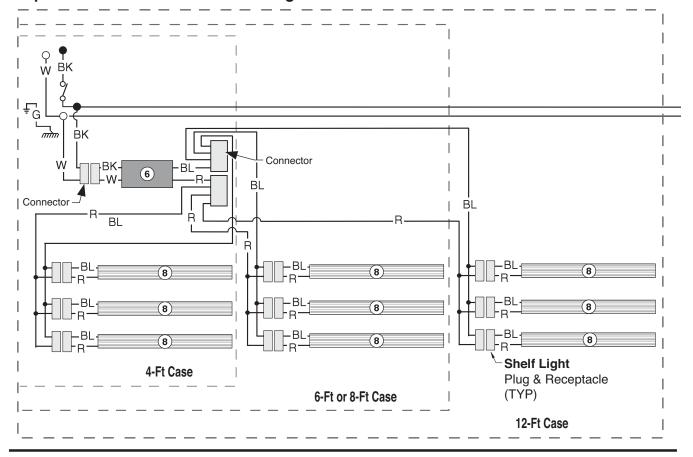
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

• = 120V Power \bigcirc = 120V Neutral $\stackrel{\downarrow}{\div}$ = Field Ground $\stackrel{\text{min}}{\longrightarrow}$ = 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 $\frac{1}{7}$ = Field Ground \implies = Case Ground

Excel C2NX-XLP

Dairy/Delicatessen

Precut & Packaged Produce

SHELF CONFIGURATION

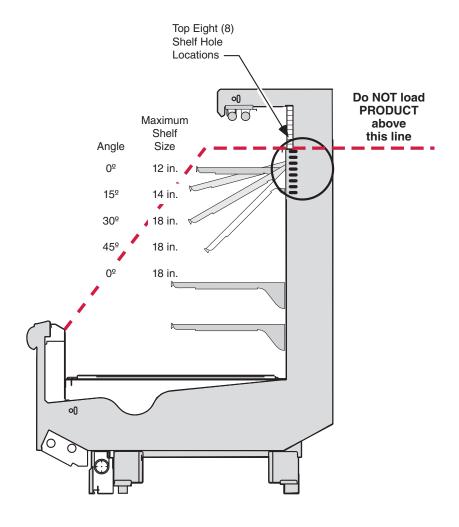
This merchandiser is designed for two or three shelves.

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.



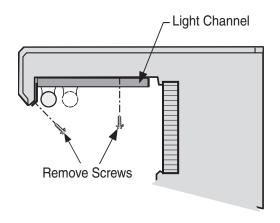
Excel C2NX-XLP

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.

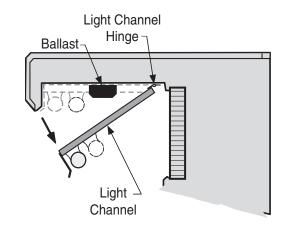
To access the ballast:

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.

