# HUSSMANN<sup>®</sup> *Excel*



## C2NX-EP

Technical Data Sheet P/N 3025803 B

NSF® Certified

April 2017

DOE 2017
Energy Efficiency
Compliant



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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.

	$\bigcirc$ DF	
		EG
(C)		
		EH
(E)		
B		<b>A</b>
EH		

Item Part # Description Wiring Item # Item Part # Description Wiring Item #

## FAN ASSEMBLIES

12 Ft

A. **7W Standard Energy Efficient** Fan Assembly (1) 0477654 Fan Motor, Evaporator (MO.4410545) 0142780 Fan Blade (FB.0142780)

#### **THERMOSTATS**

B. Optional Adjustable Refrigeration Thermostat (3)

#### **HEATERS**

C. Canopy Anti-Sweat Heater (4) 0512503 12 ft (HE.4851178)

#### LAMPS AND BALLASTS

D.	Ballast, Ele	ectronic	(5)
	0480130	2 lamps (BA.4481676)	
	0480131	3 lamps (BA.4481654)	
	0480132	4 lamps (BA.4481677)	
E.		Fluorescent Lamp Replace with like fixtures	(6)

#### LED FIXTURES AND POWER SUPPLY

F.	0501213	Power Supply (EP.4481861)	(7)
G.		LED Canopy Fixture Replace with like fixtures	(8)
Н.		LED Shelf Fixture	(9)

Replace with like fixtures

Data sheet-Excel-C2NX-EP

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

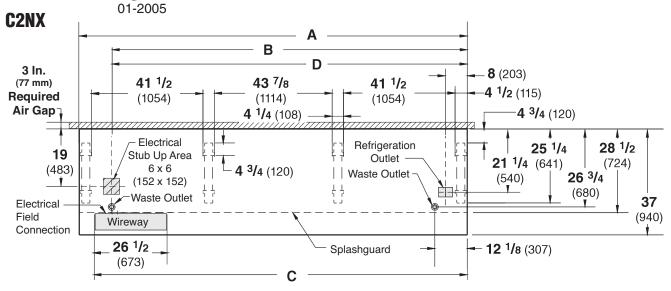
## **Engineering**

## **Plan Views**

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

## Dairy/Delicatessen Precut & Packaged Produce, Meat

Dimensions shown as inches and (mm).



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

FRON	TΓ
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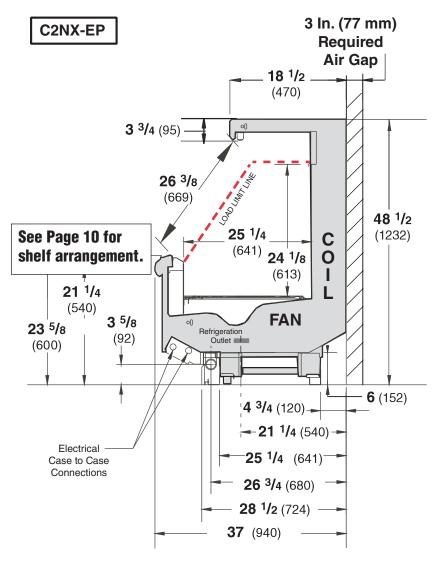
	12 ft
General	
(A) Case Length (without ends or partitions)	144 1/2 (3670)
(Each end and insulated partition adds $1^{-1}/2$ in. (38 mm) to case line up.)	
Maximum O/S dimension of case back to front	
(includes bumper)	37 (940)
Back of case to front of splashguard	28 1/2 (724)
Back of case to O/S edge of front leg	25 1/4 (641)
Distance between edges of external legs and center legs	41 1/2 (1054)
Distance between edges of center legs	43 7/8 (1114)
Distance between front legs and splashguard	2 3/4 (70)
Electrical Service (Electrical Field Wiring connection point)	
<b>(B)</b> RH End of case to center of stub up area	132 3/8 (3363)
Back of case to center of stub up area	19 (483)
Length of electrical wireway Wireway	26 1/2 (673)
(C) RH End of case to LH end of wireway	138 1/4 (3511)
Waste Outlets (One each end) (•)	
(D) RH End of case to the center of LH waste outlet	132 3/8 (3363)
RH End of case to the center of RH waste outlet	12 1/8 (307)
Back O/S of case to center of waste outlets	26 <sup>3</sup> / <sub>4</sub> (680)
Schedule 40 PVC drip pipe	1 1/4 (32)
Refrigeration Outlet	
Back of case to center of refrigeration outlet	21 1/4 (540)
RH end of case to center of refrigeration outlet	8 (203)

#### Multi-deck, 3 Display Levels, 48 In. Back, Narrow Footprint



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 **	C2	NX-EP
12 ft	3.9 lb	62 oz	1.8 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 C2NX-EP

Dairy/Delicatessen
Precut & Packaged
Produce, Meat

#### REFRIGERATION DATA

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

		C	2NX-EP	}
	Dairy/Deli Unlit Lit		Me	
	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 ‡			
C2NX-EP <sup>‡</sup>	Dairy/Deli	Meat	
	Parallel/	Parallel/	
	Conventional	Conventional	
12 ft	604 / 630	633 / 661	

<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**

C2NX-EP

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

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

OFFTIME	C2NX-EP
Temp Term °F	48°F
Failsafe Minutes	30

ELECTRIC OR GAS Not Recommended

#### CONVENTIONAL CONTROLS

**Low Pressure Backup Control** 

C2NX-EP

**CI/CO\*** 16°F / 6°F

**Indoor Unit Only, Pressure Defrost** 

**Termination\*** 48°F

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

#### Dairy/Delicatessen

#### **Precut & Packaged Produce, Meat**

#### **Electrical Data**

	12 ft
Number of Fans—7W	3

			Amperes 12 ft	Watts
Evaporat	or Fan		12 11	12 10
120V		Standard Energy Efficient	0.57	42
230V		Standard Energy Efficient	0.30	42
230V		Export	0.75	117
230V	50Hz	Export	0.84	126
Minimum	Circuit An	npacity †		
120V		Standard Energy Efficient	0.77	
230V		Standard Energy Efficient	0.50	
230V		Export	0.95	
230V	50Hz	Export	1.04	
Maximur	n Over Cur	rent Protection 120V	20	
		rent Protection 230V	15	
Anti-swea	ıt Heaters			
120V		Standard	0.30	36
Ct 1 1	T ! - l-4! //	C 0 El		
	0 0 \	Γ-8 Fluorescent)	0.77	0.5
1 Row	Canopy		0.77	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	0.77	85
1 Row Rail Light	0.77	85
2 Rows of Shelves	1.54	170
EcoShine II Canopy		
EcoShine II	0.48	58.0
EcoShine II HO	0.66	79.4
EcoShine II Rail Light —1 Row	0.25	29.7
EcoShine II Shelves		
1 Row of Shelves	0.25	29.7
2 Rows of Shelves	0.49	59.3

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

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

#### Dairy/Delicatessen

**Precut & Packaged Produce, Meat** 

#### **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) 2.56 ft<sup>3</sup>/ft (0.24 m<sup>3</sup>/m) 2.24 ft<sup>2</sup>/ft (0.68 m<sup>2</sup>/m) 4.29 ft<sup>2</sup>/ft (1.31 m<sup>2</sup>/m)

- <sup>1</sup> 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 14-inch shelf.

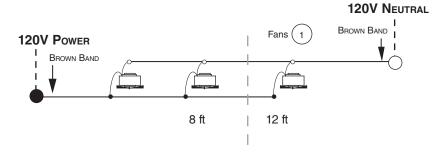
#### **ESTIMATED SHIPPING WEIGHT 4**

Case		Solid End
	12 ft	(each)
<b>lb</b> (kg)	1200 (544)	75 (34)

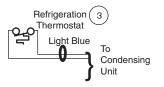
<sup>&</sup>lt;sup>4</sup> Actual weights will vary according to optional kits included.

## Fan Wiring Offtime Defrost

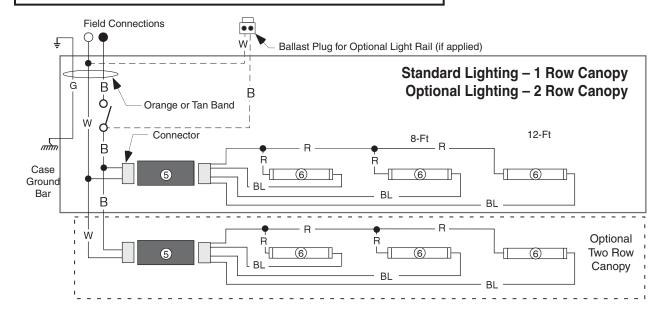
#### 2 & 3 Fans



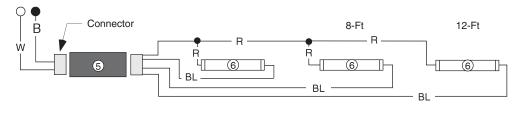
8 ft - 2 Fans 12 ft - 3 Fans



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



#### Optional Lighting - 1 Row Rail



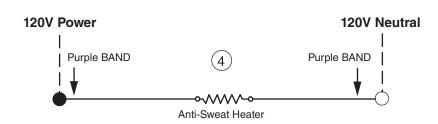
#### **WARNING**

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

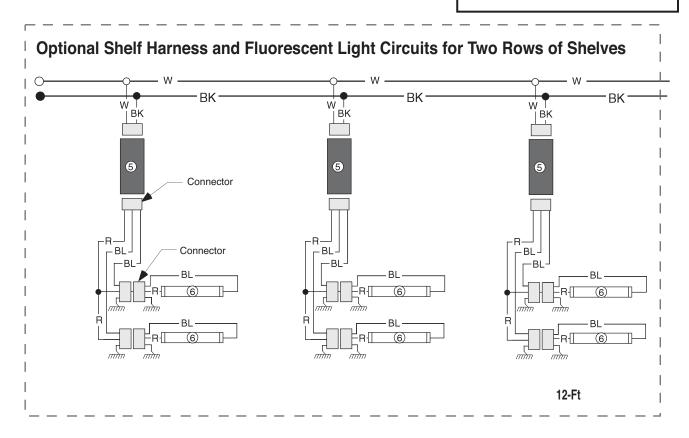
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

## Canopy Anti-Sweat Heater



## Optional Shelf Lighting Fluorescent Fixtures



#### **WARNING**

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

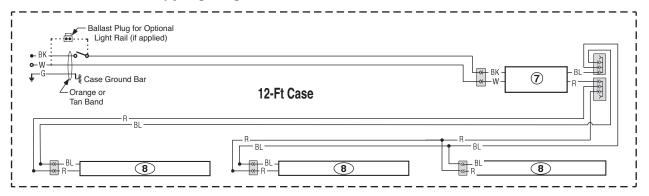
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

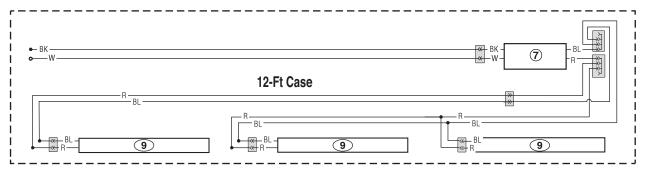
• = 120V Power  $\bigcirc$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\frac{1}{1200}$  = Case Ground

## Optional Canopy and Rail Light Circuits — LED Fixtures

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



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



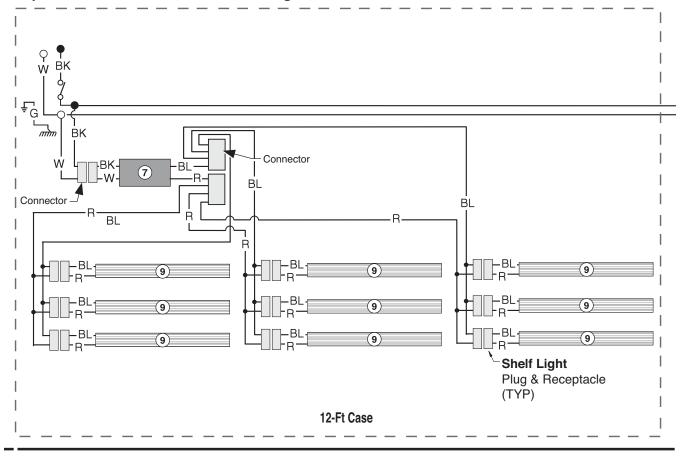
#### **WARNING**

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 
$$\bullet$$
 = 120V Power  $\circ$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\stackrel{\text{min}}{}$  = 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  $\frac{1}{2}$  = Field Ground  $\frac{1}{1000}$  = Case Ground

Dairy/Delicatessen

**Precut & Packaged Produce, Meat** 

#### SHELF CONFIGURATION

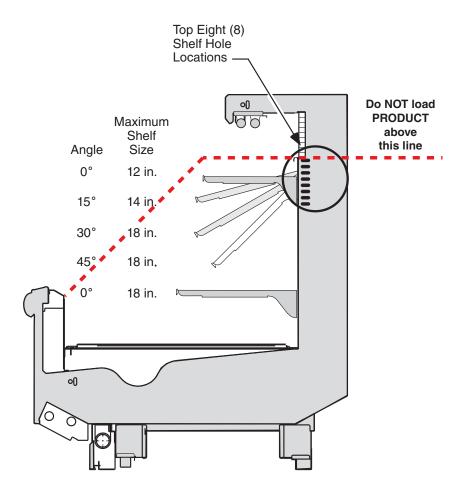
This merchandiser is designed for one or two shelves.

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.



Dairy/Delicatessen

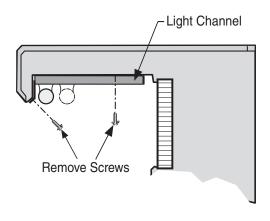
**Precut & Packaged Produce, Meat** 

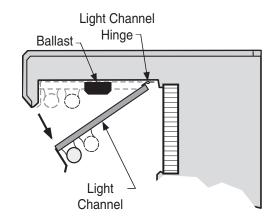
The ballast for the canopy and shelf lamps is located behind the canopy on the left-hand end (when facing case) of the merchandiser.

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.

