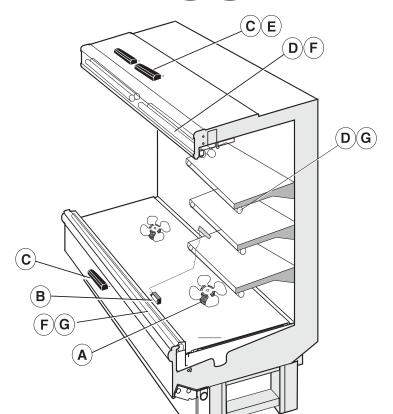
# HUSSMANN<sup>®</sup> *Excel*





# M4NX-EP

Technical Data Sheet P/N 3025813\_B

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 Item #	Item	Part #	Description Wiring It	em#
FAN A	ASSEMBLIES			Fluo	RESCENT LAN	MPS AND BALLASTS	
A.	12W Standard	d Energy Efficient	Fan Assembly (1)	C.	Ballast, Ele	ectronic	(4)
	0477655	Fan Motor, Eva	porator		0480130	2 lamps (BA.4481676)	
		(MO.4410546)	_		0480131	3 lamps (BA.4481654)	
	0461805	Fan Blade (FB.4'	780446)		0480132	4 lamps (BA.4481677)	
		•	•	D.		Fluorescent Lamp	(5)
THER	MOSTATS					Replace with like fixtures	
B.	0137880	Optional Adjust	able			•	
		Refrigeration T	hermostat (3)	LED	FIXTURES AN	D POWER SUPPLY	
		(CT.4481084)		E.	0501213	Power Supply (EP.4481861)	(6)
				F.		LED Canopy Fixture	(7)
						Replace with like fixtures	. /
				G.		LED Shelf Fixture	(8)
						Replace with like fixtures	` /

Data sheet-Excel M4NX-EP

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

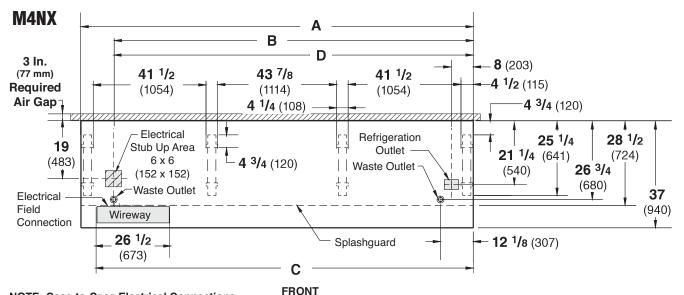
# Engineering

# **Plan Views**

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

Meat / Delicatessen 07-2009

Dimensions shown as inches and (mm).



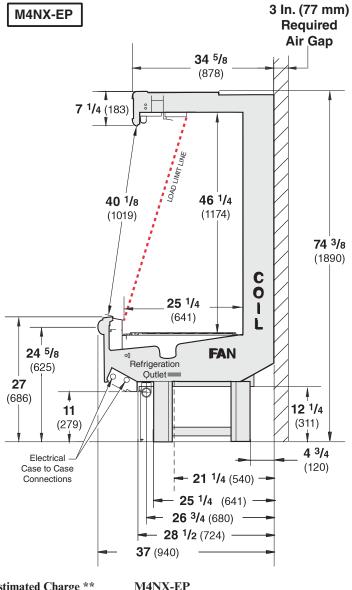
NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

	8 ft
General	
(A) Case Length (without ends or partitions)	96 3/8 (2448)
(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	NA
Distance between front legs and splashguard	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)
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	90 1/8 (2289)
<b>Waste Outlets</b> (One each end) <b>(●)</b>	
(D) RH End of case to the center of LH waste outlet	84 1/4 (2140)
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 3/4 (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)

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).



**Estimated Charge \*\* M4NX-EP 8 ft** 3.1 lb 50 oz 1.4 kg

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

#### **NSF** Certification

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

# Excel M4NX-EP Meat & Delicatessen

## REFRIGERATION DATA

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

	M4NX-EP§		
	Unlit	Lit	
Discharge Air °F	32	30	
Evaporator °F	28	26	
Unit Sizing °F	26	24	

§ 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‡

M4X-E	Parallel	Conventional
Unlit	1157	1262

<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**

Frequency Hr	6
Defrost Water (lb/ft/day)	8

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

OFFTIME	M4NX-EF
Temp Term °F	48
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

CI/CO\* M4NX-EP

14°F / 4°F

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

**Termination\*** 48°F

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

# Excel M4NX-EP Meat & Delicatessen

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Number of Fans—12W		2		
		Amperes 8 ft	Watts 8 ft	
Evaporat	tor Fan			
120V	50/60Hz Standard Energy Efficient	0.60	36	
230V	50/60Hz Standard Energy Efficient	0.30	36	
230V	50/60Hz Export	0.66	100	
230V	50/60Hz Export	0.76	114	

8 ft

20

**Minimum Circuit Ampacity** 

120V	50/60Hz Standard Energy Efficient	0.80
230V	50/60Hz Standard Energy Efficient	0.50
230V	50/60Hz Export	0.86
230V	50/60Hz Export	0.96

Maximum Over Current Protection 120V

Maximum Over Current Protection 230V 15

**Standard Lighting (T-8 fluorescent)** 

1 Row Canopy 0.51 59

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	59
Additional 2 Row Canopy	1.02	118
Additional 3 Row Canopy	1.53	177
1 Row of Shelves	0.51	59
2 Rows of Shelves	1.02	118
3 Rows of Shelves	1.53	177
4 Rows of Shelves	2.04	236
EcoShine II Canopy		
EcoShine II	0.32	38.6
EcoShine II HO	0.44	53.0
EcoShine II Rail Light —1 Row	0.16	19.8
EcoShine II Shelves		
3 Rows of Shelves	0.49	59.3
4 Rows of Shelves	0.66	79.1

120V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting 120V LED Lighting Circuit Total = Canopy Lighting + Shelf 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.

# Excel M4NX-EP Meat & Delicatessen

#### **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) 5.05 ft<sup>3</sup>/ft (0.47 m<sup>3</sup>/m) 3.34 ft<sup>2</sup>/ft (1.02 m<sup>2</sup>/m) 5.60 ft<sup>2</sup>/ft (1.70 m<sup>2</sup>/m)

<b>ESTIMATED</b>	SHIPPING W	FIGHT 4

Case		Solid End
	8 ft	(each)
<b>lb</b> ( <i>kg</i> )	1000 (454)	100 (45)

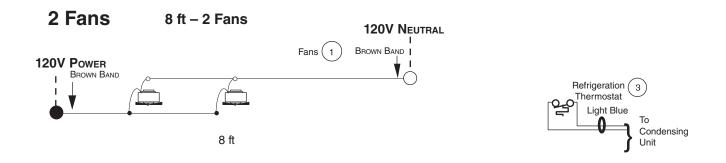
<sup>&</sup>lt;sup>4</sup> Actual weights will vary according to optional kits included.

 $<sup>^1</sup>$  AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft $^3$ /ft [m $^3$ /m]

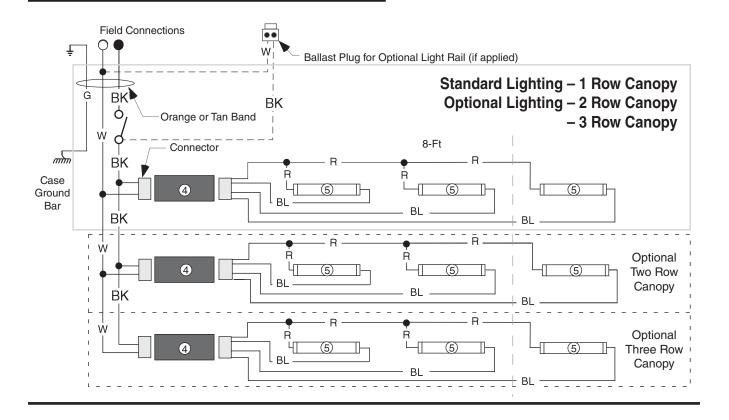
<sup>&</sup>lt;sup>2</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]

<sup>&</sup>lt;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 14-inch shelf and (1) row of 16-inch shelf.

# Fan Wiring Offtime Defrost



# **Light Circuits — Fluorescent Fixtures**



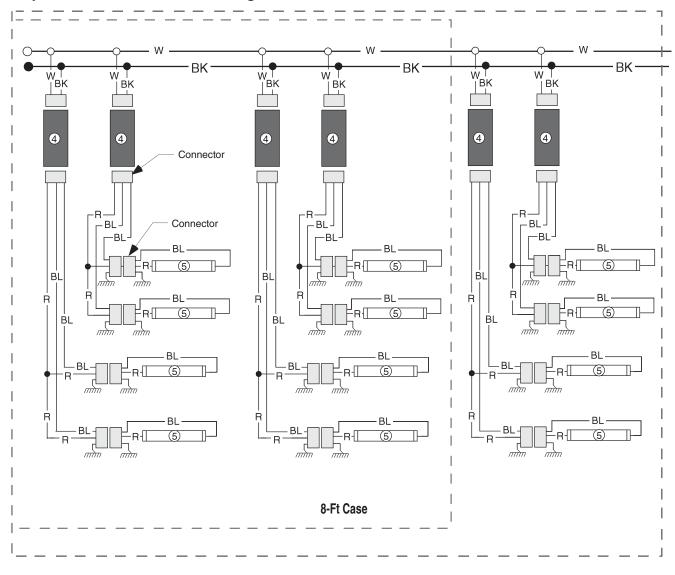
## **WARNING**

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  $\stackrel{\perp}{\bot}$  = Field Ground  $\stackrel{\text{min}}{\longrightarrow}$  = Case Ground

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



## **WARNING**

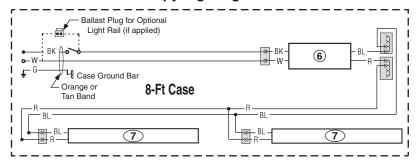
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

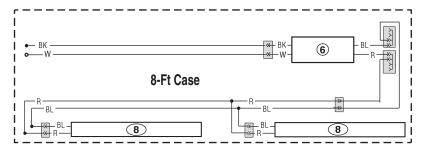
R = Red Y = Yellow G = Green BL = Blue BK = Black W = White  $\bullet$  = 120V Power  $\circ$  = 120V Neutral  $\frac{1}{2}$  = Field Ground  $\stackrel{\text{min}}{}$  = Case Ground

# Optional Canopy and Rail Light Circuits — LED Fixtures

# EcoShine II LED Canopy Lighting - 1 Row



## EcoShine II LED Rail Lighting - 1 Row



## **WARNING**

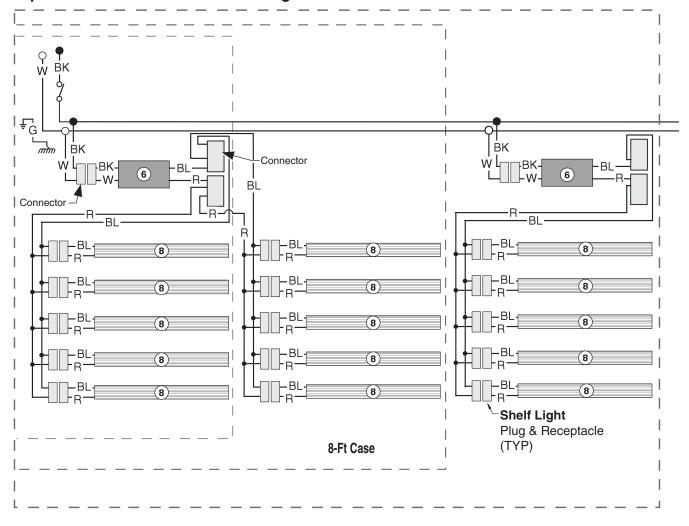
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

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

# Optional Shelf Harness and LED Light Circuits for 4 or 5 Rows of Shelves



#### **WARNING**

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

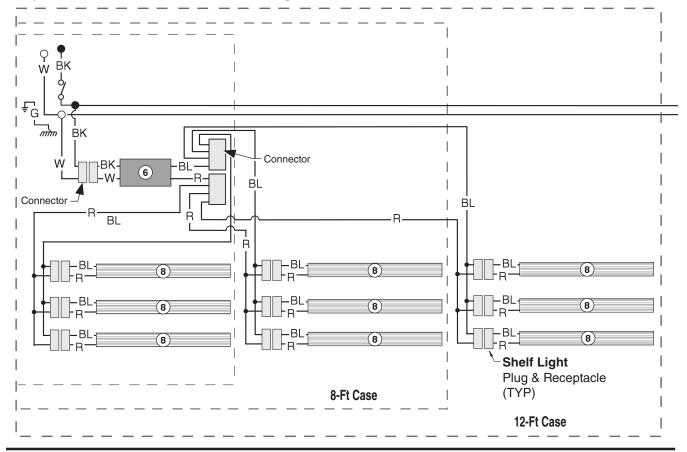
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

• = 80V Power  $\bigcirc$  = 80V Neutral  $\frac{1}{7}$  = Field Ground  $\overrightarrow{mm}$  = 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

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