

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 Item #
FAN ASSEMBLIES				LAMPS AND BALLASTS			
8 Ft & 12 Ft				C.	Ballast, Electronic		(3)
A.	12W Standard	Fan Assembly	(1)	0480130	2 lamps (BA.4481676)		
	0047000	Fan Motor, Evaporator (MO.4410103)		0480131	3 lamps (BA.4481654)		
	0461805	Fan Blade (FB.4780446)		0480132	4 lamps (BA.4481677)		
	12W Energy Efficient	Fan Assembly	(1)	D.	Fluorescent Lamp		(4)
	0477655	Fan Motor, Evaporator (MO.4410546)			<i>Replace with like fixtures</i>		
	0461805	Fan Blade (FB.4780446)		LED FIXTURES AND POWER SUPPLY			
THERMOSTATS				E.	0501213	Power Supply (EP.4481861)	(5)
B.	Optional Adjustable Refrigeration Thermostat	(2)		F.	LED Canopy Fixture		(6)
					<i>Replace with like fixtures — See Page 5.</i>		
				G.	LED Shelf Fixture		(7)
					<i>Replace with like fixtures — See Page 5.</i>		

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



Engineering Plan Views

PHYSICAL DATA

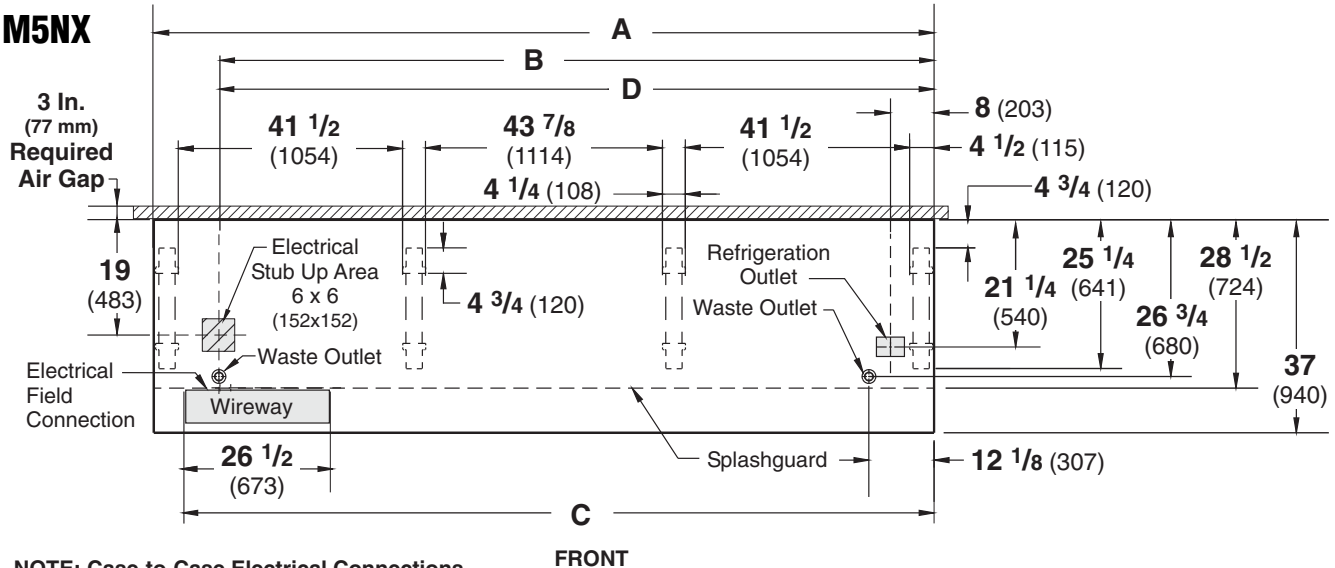
Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	7/8

Meat / Delicatessen





09-2005

Dimensions shown as in. and (mm).

M5NX

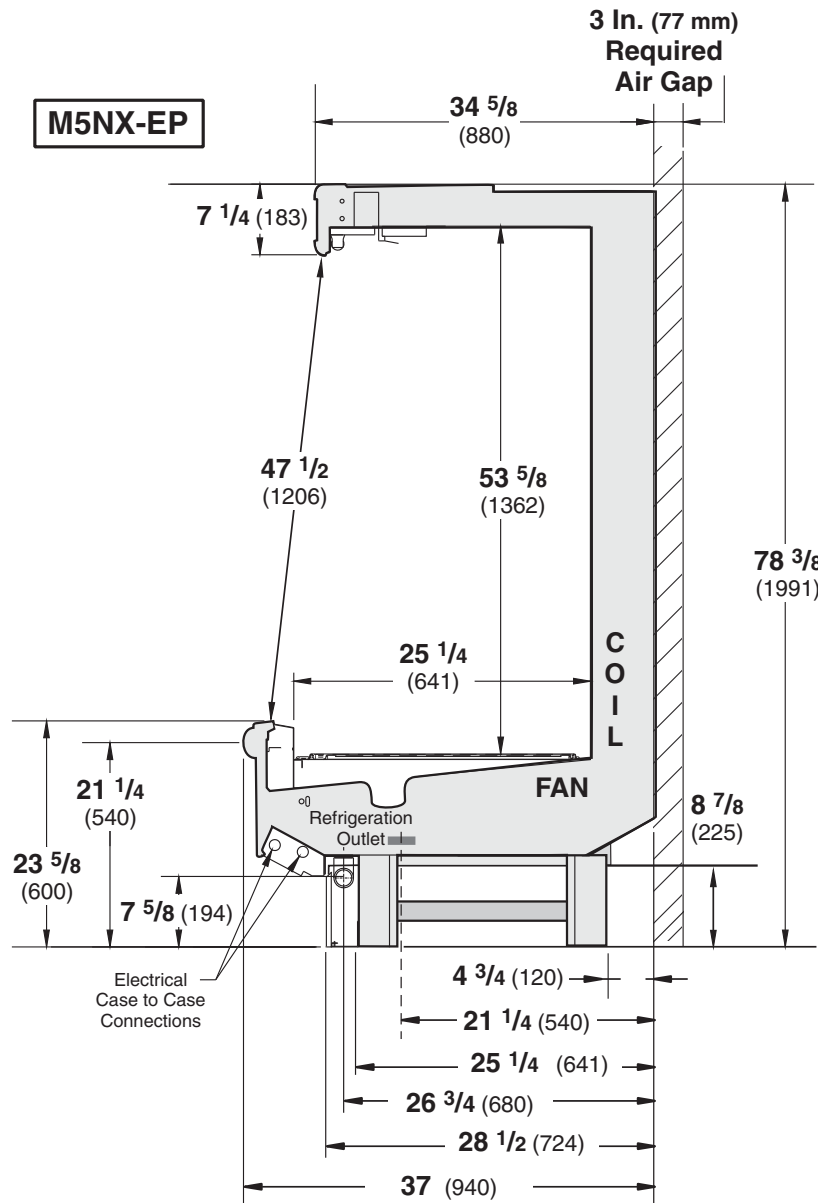


NOTE: Case-to-Case Electrical Connections are made IN FRONT OF SPLASHGUARD.

	8 ft	12 ft
General		
(A) Case Length (<i>without ends or partitions</i>) (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)	96 3/8 (2448)	144 1/2 (3670)
Back of case to front of splashguard	37 (940)	37 (940)
Back of case to O/S edge of front leg	28 1/2 (724)	28 1/2 (724)
Distance between edges of external legs and center legs	25 1/4 (641)	25 1/4 (641)
Distance between edges of center legs	41 1/2 (1054)	41 1/2 (1054)
Distance between front legs and splashguard	NA	43 7/8 (1114)
	2 3/4 (70)	2 3/4 (70)
Electrical Service  (<i>Electrical Field Wiring connection point</i>)		
(B) RH End of case to center of stub up area Back of case to center of stub up area Length of electrical wireway 	84 1/4 (2140) 19 (483) 26 1/2 (673)	132 3/8 (3363) 19 (483) 26 1/2 (673)
(C) RH End of case to LH end of wireway	90 1/8 (2289)	138 1/4 (3511)
Waste Outlets (<i>One each end</i>) 		
(D) RH End of case to the center of LH waste outlet RH End of case to the center of RH waste outlet Back O/S of case to center of waste outlets Schedule 40 PVC drip pipe	84 1/4 (2140) 12 1/8 (307) 26 3/4 (680) 1 1/4 (32)	132 3/8 (3363) 12 1/8 (307) 26 3/4 (680) 1 1/4 (32)
Refrigeration Outlet 		
Back of case to center of refrigeration outlet RH end of case to center of refrigeration outlet	21 1/4 (540) 8 (203)	21 1/4 (540) 8 (203)

Multi-deck, 5 Display Levels, Low Front

Dimensions shown as in. and (mm).



NSF Certification

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

**Impact Excel M5NX-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.

M5NX-EP	UNLIT	LIT
Discharge Air °F	32	30
Evaporator °F	28	26
Unit Sizing °F	26	24

Btu/hr/ft³ — Unlit Shelves^{‡‡}

M5NX-EP	Parallel	Conventional
UNLIT	1520	1660

[‡]Optional energy efficient motors reduce the refrigeration load by 27 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

	M5NX-EP
Frequency (hr)	6
Defrost Water (lb/ft/day)	10.5

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

OFF TIME	M5NX-EP
Time (minutes)	30

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS

Low Pressure Backup Control

	M5NX-EP
CI/CO*	19°F/9°F

Indoor Unit Only,

Pressure Defrost Termination* 48°F

*Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge**	M5NX-EP		
8 ft	2.7 lb	43 oz	1.2 kg
12 ft	3.9 lb	62 oz	1.8 kg

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

Impact *Excel* M5NX-EP

Meat / Delicatessen

Electrical Data

			8 ft	12 ft		
Number of Fans—12W			2	3		
			Amperes		Watts	
Evaporator Fan			8 ft	12 ft	8 ft	12 ft
120V	60Hz	Standard	1.30	1.95	100	150
120V	50Hz	Standard	1.50	2.25	114	171
230V	60Hz	Export	0.66	0.99	100	150
230V	50Hz	Export	0.76	1.14	114	171
120V	60Hz	Energy Efficient	0.60	0.90	36	54
230V	60Hz	Energy Efficient	0.30	0.45	36	54
Minimum Circuit Ampacity						
120V	60Hz	Standard	1.50	2.15		
120V	50Hz	Standard	1.70	2.45		
230V	60Hz	Export	0.86	1.19		
230V	50Hz	Export	0.96	1.34		
120V	60Hz	Energy Efficient	0.80	1.10		
230V	60Hz	Energy Efficient	0.50	0.65		
Maximum Over Current Protection 120V			20	20		
Maximum Over Current Protection 230V			15	15		
Standard Lighting (T-8 fluorescent)						
1 Row Canopy			0.51	0.77	59	85
Optional Lighting (T-8 fluorescent)						
Additional 1 Row Canopy			0.51	0.77	59	85
Additional 2 Row Canopy			1.02	1.54	118	170
Additional 3 Row Canopy			1.53	2.31	177	255
1 Row Rail Light			0.51	0.77	59	85
1 Row of Shelves			0.51	0.77	59	85
2 Rows of Shelves			1.02	1.54	118	170
3 Rows of Shelves			1.52	2.31	177	255
4 Rows of Shelves			2.04	3.08	236	340
5 Rows of Shelves			2.55	3.85	295	425
EcoShine Multi-deck — Normal CRI—120VAC, 50/60Hz						
2 Row Canopy (Front & Rear)			0.55	0.82	66	98
1 Row of Shelves			0.20	0.29	24	35
2 Row of Shelves			0.39	0.58	47	70
3 Rows of Shelves			0.58	0.88	70	105
4 Rows of Shelves			0.78	1.17	93	140
5 Rows of Shelves			0.97	1.45	116	174
EcoShine Multi-deck — High CRI —120VAC, 50/60Hz						
2 Row Canopy (Front & Rear)			0.63	0.93	75	112
1 Row of Shelves			0.23	0.35	28	42
2 Row of Shelves			0.47	0.70	56	84
3 Rows of Shelves			0.70	1.05	84	126
4 Rows of Shelves			0.93	1.40	112	168
5 Rows of Shelves			1.17	1.75	140	210
Always*Bright Multi-deck —120VAC, 50/60Hz						
2 Row Canopy (Front & Rear)			0.71	1.08	85	130
1 Row of Shelves			0.23	0.38	28	45
2 Row of Shelves			0.47	0.67	56	80
3 Rows of Shelves			0.74	1.11	89	133
4 Rows of Shelves			0.93	1.40	112	168
5 Rows of Shelves			1.13	1.69	136	203

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

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

Product Data

Recommended Usable Cube ¹ (Cu Ft/Ft)	5.76 ft ³ /ft (0.54 m ³ /m)
AHRI Total Display Area ² (Sq Ft/Ft)	4.28 ft ² /ft (1.30 m ² /m)
Shelf Area ³ (Sq Ft/Ft)	6.96 ft ² /ft (2.12 m ² /m)

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 14-inch shelf and (1) row of 16-inch shelf.

ESTIMATED SHIPPING WEIGHT⁴

Case			Solid End
	<i>8 ft</i>	<i>12 ft</i>	<i>(each)</i>
Ib (kg)	1100 (499)	1500 (680)	100 (45)

⁴ Actual weights will vary according to optional kits included.

PARTS LIST (Continued from Page 1)

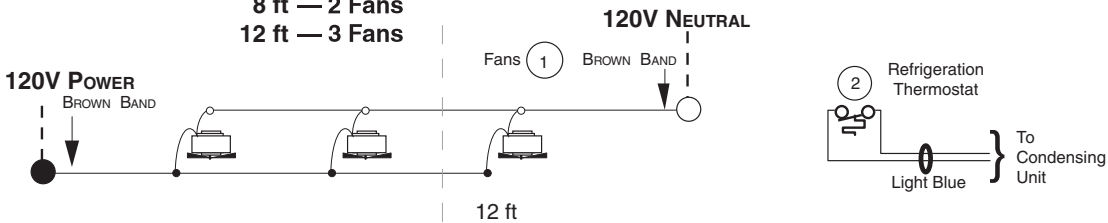
Item	Part #	Description	Item	Part #	Description
LED FIXTURES AND POWER SUPPLY					
E.	0501213	Power Supply (EP.4481861)	(5)	G.	EcoShine LED Shelf Fixture
F.	EcoShine LED Canopy Fixture		(6)	4441590	48-inch 2900K HCRI
	4441720	Front 48-inch	2900K HCRI	4441591	48-inch 3500K HCRI
	4441722	Front 48-inch	3500K HCRI	4441592	48-inch 3500K
	4441724	Front 48-inch	3500K	4441593	48-inch 4100K
	4441726	Front 48-inch	4100K		
	4441721	Rear 48-inch	2900K HCRI		
	4441723	Rear 48-inch	3500K HCRI		
	4441725	Rear 48-inch	3500K		
	4441727	Rear 48-inch	4100K		

Note: Always*Bright lamps will be replaced with the latest generation of EcoShine lamps.

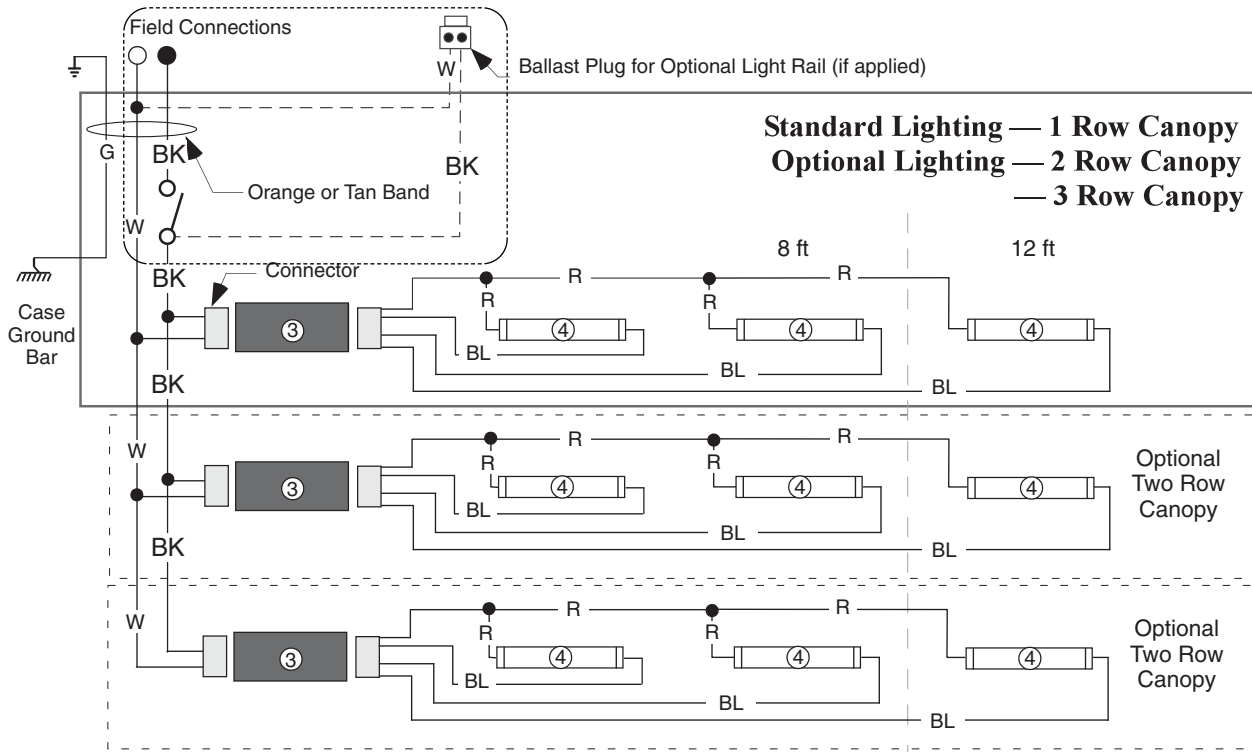
Fan Wiring Offtime Defrost

2 & 3 Fans

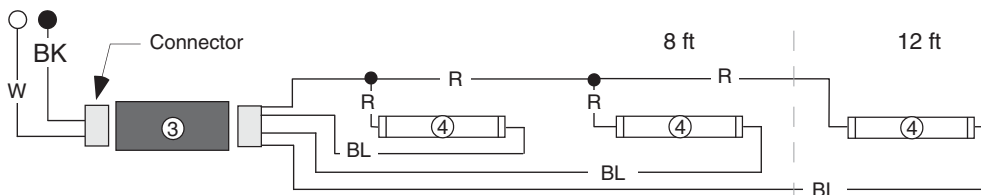
6 ft — 2 Fans
8 ft — 2 Fans
12 ft — 3 Fans



Light Circuits — Fluorescent Fixtures



Optional Lighting — 1 Row Rail



WARNING

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

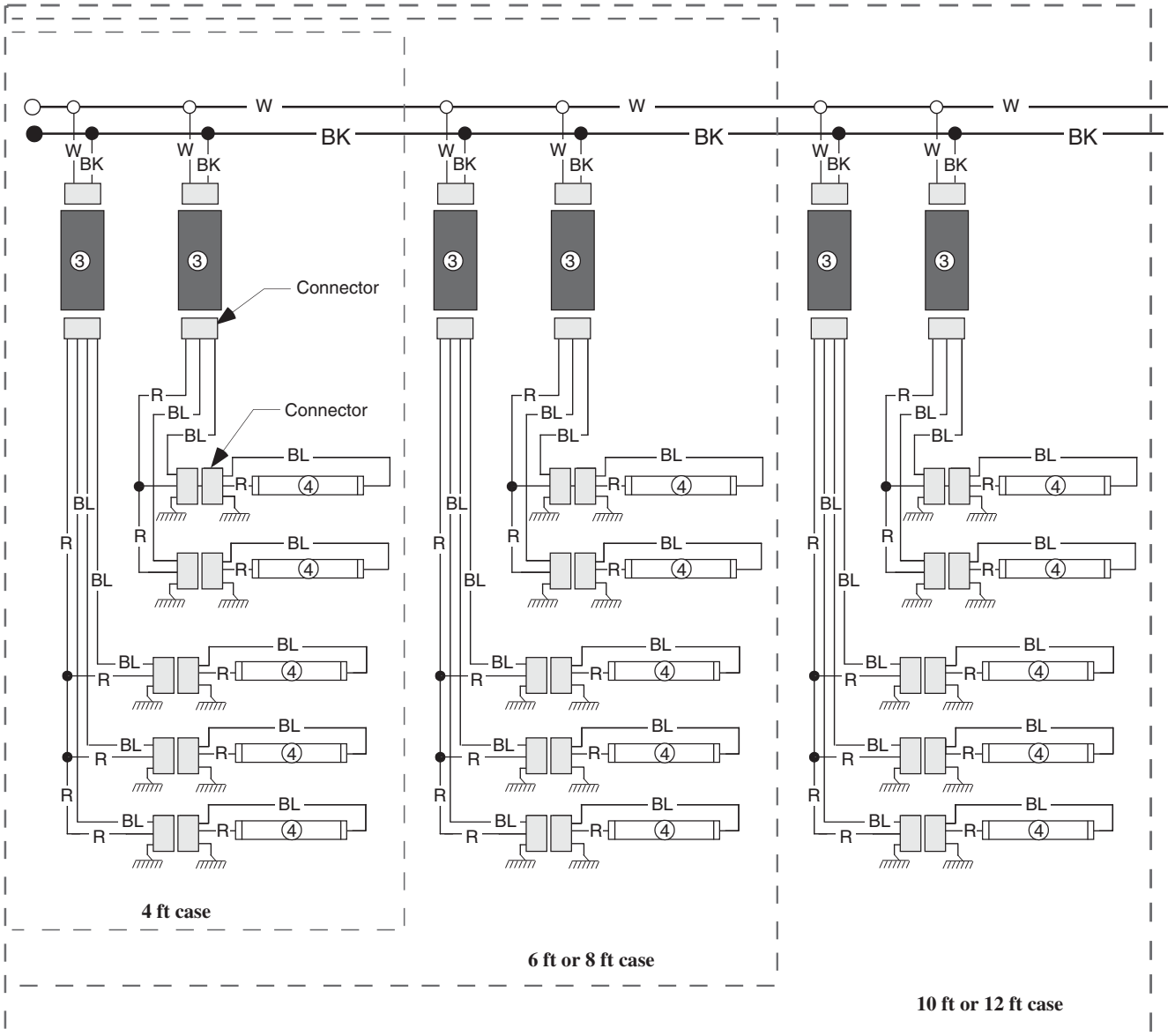
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = CASE GROUND

Optional Shelf Lighting Fluorescent Fixtures

Optional Shelf Harness and Light Circuits for Five Rows of Shelves



WARNING

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

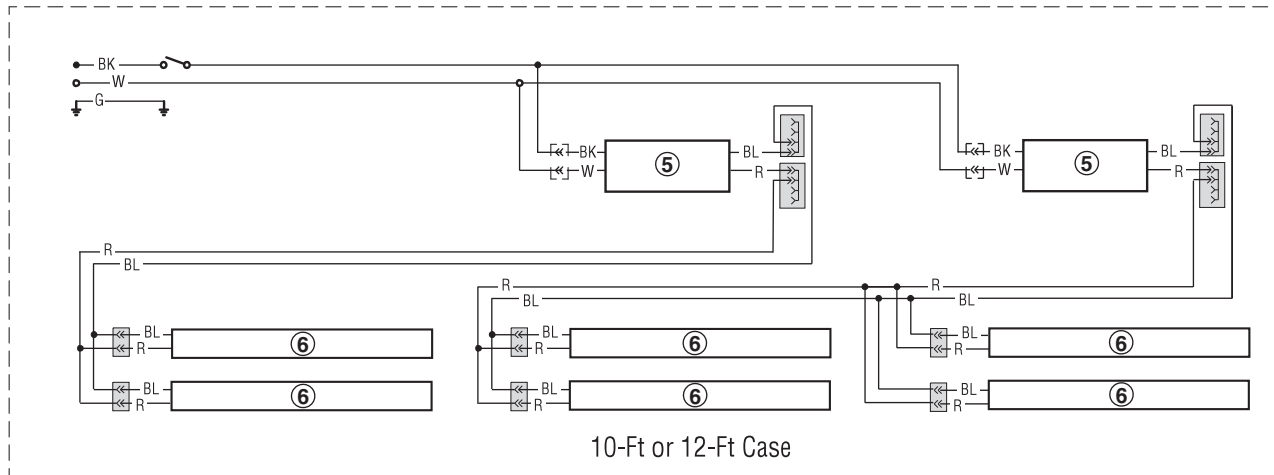
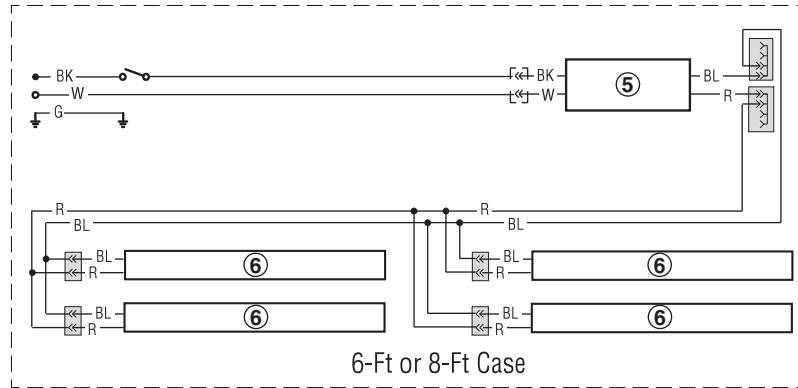
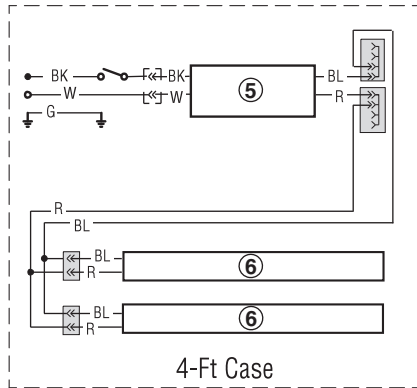
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = 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.

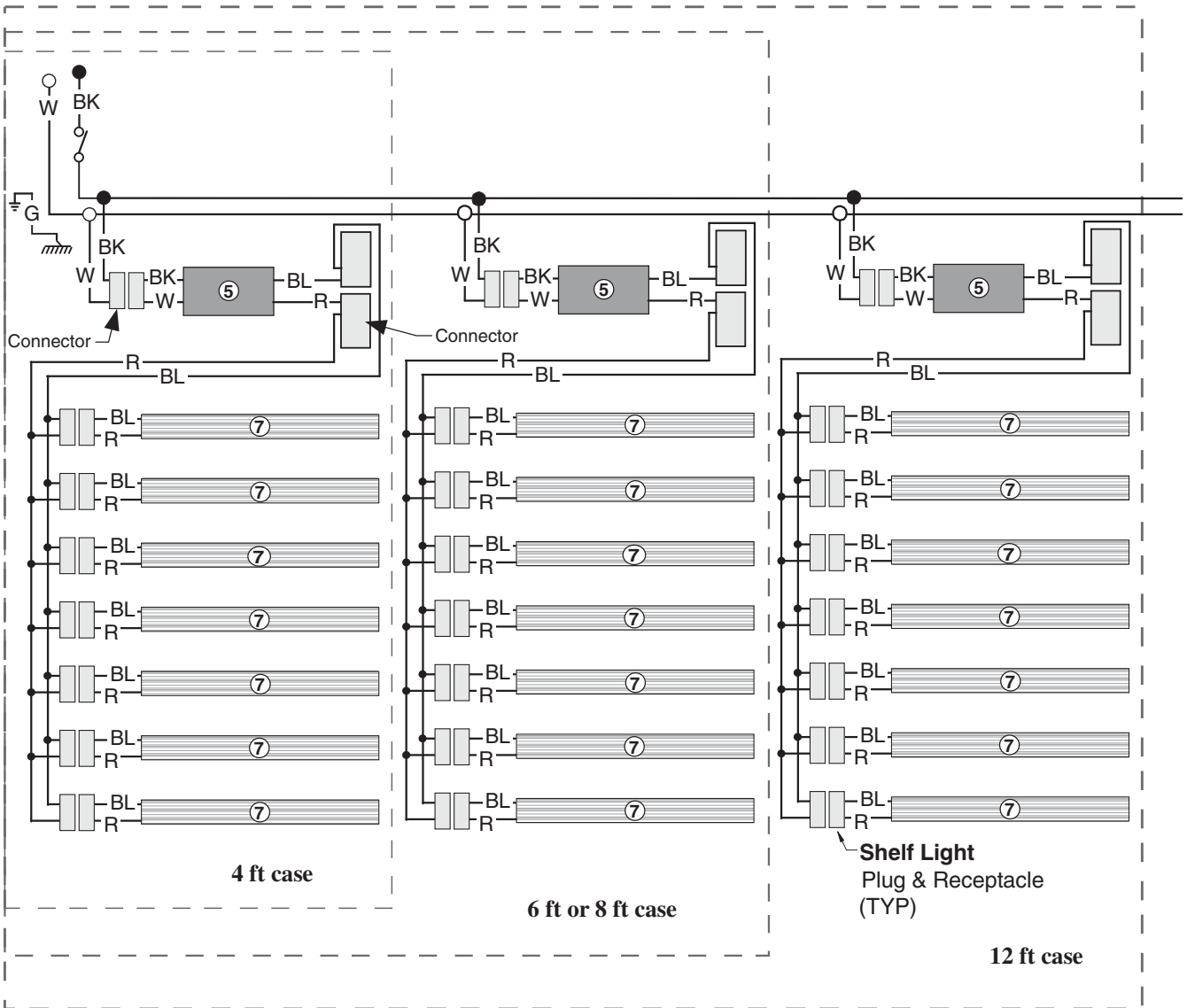
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND \overline{m} = CASE GROUND

Optional Shelf Lighting LED Fixtures

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.

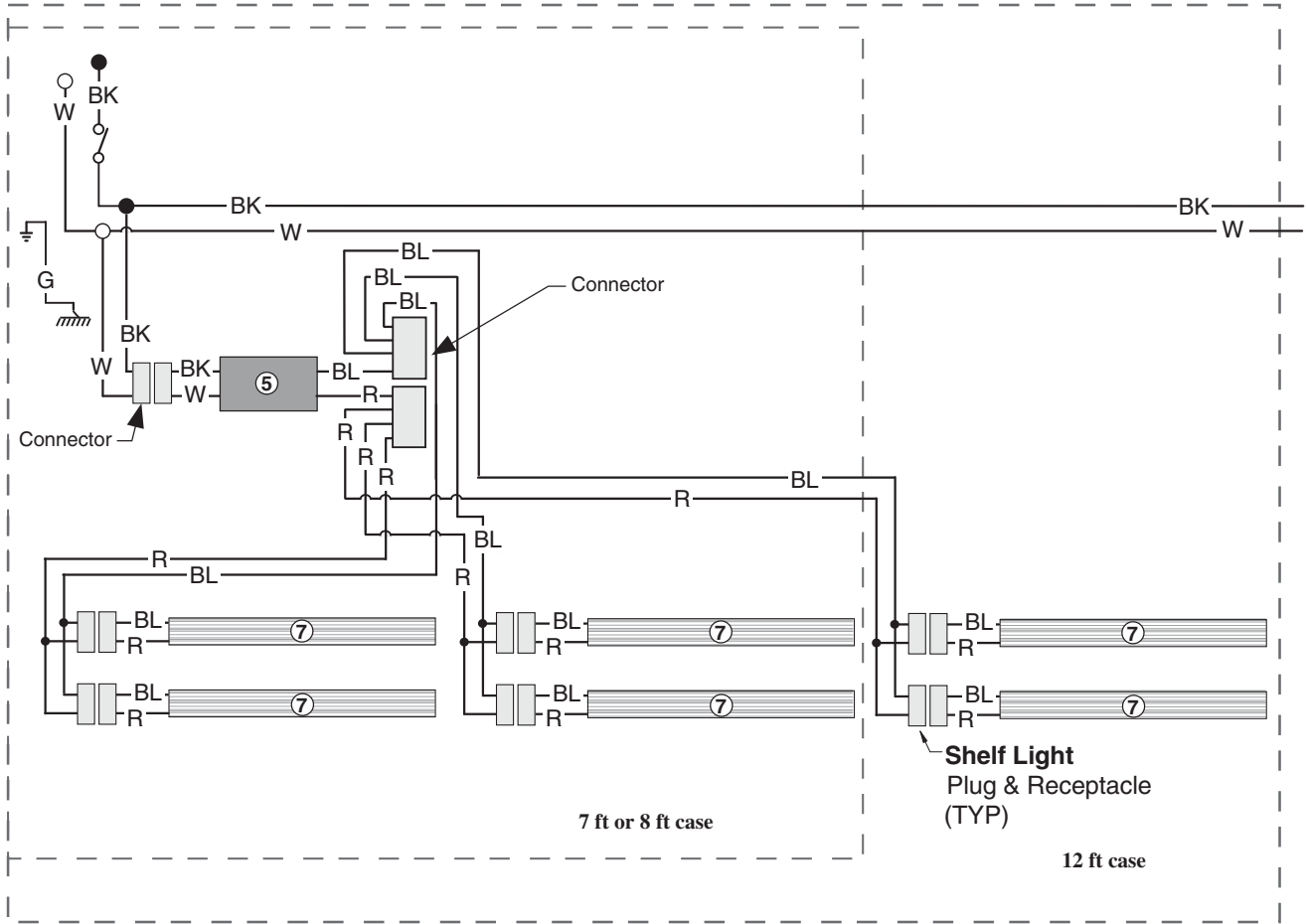
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = CASE GROUND

Optional Shelf Lighting LED Fixtures

Optional Shelf Harness and LED 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 G = Green BL = Blue BK = Black W = White

● = 120V POWER ○ = 120V NEUTRAL ⚡ = FIELD GROUND mm = CASE GROUND