**Fan Assemblies**

8 Ft & 12 Ft

<table>
<thead>
<tr>
<th>Item</th>
<th>Part #</th>
<th>Description</th>
<th>Wiring Item #</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>12W</td>
<td>Standard Energy Efficient Fan Assembly</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>0477655</td>
<td>Fan Motor, Evaporator</td>
<td>(MO.4410546)</td>
</tr>
<tr>
<td></td>
<td>0463643</td>
<td>Fan Blade</td>
<td>(FB.4780648)</td>
</tr>
</tbody>
</table>

**Thermostats**

B. Optional Adjustable Refrigeration Thermostat (2)

**Lamps and Ballasts**

C. Ballast, Electronic

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Wiring Item #</th>
</tr>
</thead>
<tbody>
<tr>
<td>0480130</td>
<td>2 lamps (BA.4481676)</td>
<td>(3)</td>
</tr>
<tr>
<td>0480131</td>
<td>3 lamps (BA.4481654)</td>
<td></td>
</tr>
<tr>
<td>0480132</td>
<td>4 lamps (BA.4481677)</td>
<td></td>
</tr>
</tbody>
</table>

D. Fluorescent Lamp

*Replace with like fixtures* (4)

**LED Fixtures and Power Supply**

E. 0501213 Power Supply (EP.4481861) (5)
F. LED Canopy Fixture *Replace with like fixtures* (6)
G. LED Mullion Fixture *Replace with like fixtures* (7)

**Note:** Revision K: Updated lighting energy values. Other changes marked with a bar, circle or underline.
Rear Load Dairy & Delicatessen
DD5X-LR

Dimensions shown as in. and (mm).

General

(A) Case Length (without ends or partitions)
(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, including bumper)

- Back of case to front of splashguard: 36 7/8 (937) in.
- Back of case to O/S edge of front skid rail: 29 1/2 (749) in.
- Width of skid rail: 2 3/8 (61) in.
- RH end of case to outside edge of external support and center support: 5 1/2 (140) in.
- Distance between edges of center supports: NA in.
- Distance between front skid rail and splashguard: 6 (152) in.

Electrical Service
(Electrical Field Wiring connection point)

(B) RH End of case to center of stub up area

- Back of case to center of stub up area: 20 (508) in.
- Length of electrical wireway: 26 1/2 (673) in.

(C) RH End of case to LH end of wireway

- 8 ft: 90 1/8 (2289) in.
- 12 ft: 138 1/4 (3511) in.

Waste Outlets (One each end)

(D) End of case to the center of farthest waste outlet

- 8 ft: 84 1/4 (2140) in.
- 12 ft: 132 3/8 (3363) in.
- End of case to the center of nearest waste outlet: 12 1/8 (307) in.
- Back O/S of case to center of waste outlets: 34 7/8 (885) in.
- Outside diameter of the drip pipe: 1 1/4 (32) in.

Refrigeration Outlet

- Back of case to center of refrigeration outlet: 29 3/8 (745) in.
- RH end of case to center of refrigeration outlet: 8 (203) in.

Electrical Service

Electrical Field Connection Wireway

Wireway

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

PHYSICAL DATA

- Merchandiser Drip Pipe (in.): 1 1/4
- Merchandiser Liquid Line (in.): 3/8
- Merchandiser Suction Line (in.): 7/8
Multi-deck, 5 Display Levels with Sliding Rear Door, Low Front

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 in. and (mm).

Excel DD5X-LR
Dairy & Delicatessen

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

DD5X-LR

<table>
<thead>
<tr>
<th>Dairy Deli</th>
<th>Unlit</th>
<th>Lit*</th>
<th>Peg**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge Air °F</td>
<td>37</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Evaporator °F</td>
<td>32</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Unit Sizing °F</td>
<td>30</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>DD5X-LR</td>
<td>FRESH MEAT</td>
<td>Unlit</td>
<td>Lit‡</td>
</tr>
<tr>
<td>Discharge Air °F</td>
<td>33</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Evaporator °F</td>
<td>28</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Unit Sizing °F</td>
<td>26</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

* Lit data is for canopy and mullion lighting. Hussmann recommends against using lit shelves with EcoVision Doors.

** Hussmann Peg Shelves (Deli only)

§ 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

<table>
<thead>
<tr>
<th>Unlit</th>
<th>IMITER</th>
<th>PEG*</th>
<th>MEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD5X-LR</td>
<td>Unlit</td>
<td>Lit</td>
<td>Lit‡</td>
</tr>
<tr>
<td>Parallel</td>
<td>313</td>
<td>350</td>
<td>360</td>
</tr>
<tr>
<td>Conventional</td>
<td>322</td>
<td>361</td>
<td>371</td>
</tr>
</tbody>
</table>

‡ Add 10 Btu/hr/ft for lit.

DEFROST DATA
Frequency Hr 24
Defrost Water (lb/ft/day) 1.0
(± 15% based on case configuration and product loading).

OFFTIME

<table>
<thead>
<tr>
<th>DD5X-LR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time (minutes)</td>
</tr>
</tbody>
</table>

ELECTRIC OR GAS Not Recommended

CONVENTIONAL CONTROLS
Low Pressure Backup Control
CI/CO***

<table>
<thead>
<tr>
<th>DD5X-LR</th>
</tr>
</thead>
<tbody>
<tr>
<td>35°F / 25°F</td>
</tr>
</tbody>
</table>

Indoor Unit Only, Pressure Defrost Termination*** 40°F

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

Estimated Charge****

<table>
<thead>
<tr>
<th>DD5X-LR</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ft</td>
</tr>
<tr>
<td>12 ft</td>
</tr>
</tbody>
</table>

****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 DD5X-LR

## Dairy & Delicatessen

### Electrical Data

<table>
<thead>
<tr>
<th>Number of Fans – 12W</th>
<th>8 ft</th>
<th>12 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Fans – 7W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaporator Fans</th>
<th>Amperes</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>120V 50/60Hz Standard Energy Efficient</td>
<td>0.60 0.90</td>
<td>36 54</td>
</tr>
<tr>
<td>230V 50/60Hz Standard Energy Efficient</td>
<td>0.30 0.45</td>
<td>36 54</td>
</tr>
<tr>
<td>230V 60Hz Export</td>
<td>0.66 0.99</td>
<td>100 150</td>
</tr>
<tr>
<td>230V 50Hz Export</td>
<td>0.76 1.14</td>
<td>114 171</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Circuit Ampacity</th>
<th>Amperes</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>120V 50/60Hz Standard Energy Efficient</td>
<td>0.80 1.10</td>
<td></td>
</tr>
<tr>
<td>230V 50/60Hz Standard Energy Efficient</td>
<td>0.50 0.65</td>
<td></td>
</tr>
<tr>
<td>230V 60Hz Export</td>
<td>0.86 1.19</td>
<td></td>
</tr>
<tr>
<td>230V 50Hz Export</td>
<td>0.96 1.34</td>
<td></td>
</tr>
</tbody>
</table>

| 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 |

**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)**

2 Row Canopy | 1.02 | 1.54 | 118 | 170 |
3 Row Canopy | 1.53 | 2.31 | 177 | 255 |

**LED EcoShine II Canopy**

- EcoShine II | 0.32 | 0.48 | 38.6 | 58.0 |
- EcoShine II HO | 0.44 | 0.66 | 53.0 | 79.4 |

**Shelf**

- None

**Mullion**

- EcoShine II 48-in. | 0.40 | 0.57 | 47.7 | 68.2 |

120V Lighting Circuit Total = Standard Lighting + Total Optional 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.*
Product Data

Recommended Usable Cube 1 (Cu Ft/Ft) 9.39 ft³/ft (0.87 m³/m)
AHRI Total Display Area 2 (Sq Ft/Ft) 4.46 ft²/ft (1.36 m²/m)
Shelf Area 3 (Sq Ft/Ft) 9.85 ft²/ft (3.00 m²/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 (4) rows of 22-inch shelves.

ESTIMATED SHIPPING WEIGHT 4

<table>
<thead>
<tr>
<th>Case</th>
<th>Solid End (each)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8 ft</td>
</tr>
<tr>
<td>lb (kg)</td>
<td>1500 (680)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 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

Standard Lighting — 1 Row Canopy
Optional Lighting — 2 Row Canopy
— 3 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  mhm = CASE GROUND
Optional Canopy Lighting
LED Fixtures

EcoShine II LED Canopy Lighting — 1 Row

Ballast Plug for Optional
Light Rail (if applied)

Case Ground Bar
Orange or
Tan Band

8-Ft Case

Ballast Plug for Optional
Light Rail (if applied)

Case Ground Bar
Orange or
Tan Band

12-Ft Case
Optional Mullion Lighting
LED 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   ○ = 120V NEUTRAL   † = FIELD GROUND   mhm = CASE GROUND
Rear View of 8 Foot Dairy Merchandiser
Double-walled telescoping doors slide both left and right.

**NOTE:** Consult Cooler Close-off Kit for instructions on connecting the merchandiser to the cooler.
NOTE: Consult Cooler Close-off Kit for Instructions on connecting the merchandiser to the cooler.

Rear View of 12 Foot Dairy Merchandiser
Double-walled telescoping doors slide both left and right.