**Air velocity measured 1 hour after defrost at the top discharge air duct using an ALNOR JR. velometer with a scoop.**

**Evaporator temperature is defined as the saturated suction temperature leaving the case.**

---

### CASE BTUH REQUIREMENTS

**TYLER SPEC SHEET MT – 20**

20-Mar-08

**SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.**

Conditions of use are outside of Tyler’s control and we do not assume and hereby disclaim any liability for results obtained or damages incurred through application of or reliance on the data presented, including but not limited to specific energy consumption with any particular model or installed application. The information contained herein is based on technical analysis and/or tests performed in a controlled lab environment that are consistent with industry practices, and is intended as a reference for system sizing and configuration purposes only and for use by persons having technical skill at their own discretion and risk. Conditions of use are outside of Tyler’s control and we do not assume and hereby disclaim any liability for results obtained or damages incurred through application of or reliance on the data presented, including but not limited to specific energy consumption with any particular model or installed application. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

---

### Refrigeration Data:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CASE LENGTH</th>
<th>CASE USAGE</th>
<th>CAPACITY (BTUH / FT)</th>
<th>EVAPORATOR (°F)</th>
<th>UNIT SIZING (°F)</th>
<th>DISCHARGE AIR TEMPERATURE (°F)</th>
<th>VELOCITY (FPM)</th>
<th>AVG. REF. CHARGE (LBS/FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3HMHP</td>
<td>6’7/8’12’</td>
<td>MED TEMP</td>
<td>1.055*</td>
<td>1.195*</td>
<td>+25**</td>
<td>+23</td>
<td>+28.4</td>
<td>188***</td>
</tr>
<tr>
<td>N3HMGHP</td>
<td>6’7/8’12’</td>
<td>MED TEMP</td>
<td>0.971*</td>
<td>1.099*</td>
<td>+25**</td>
<td>+23</td>
<td>+28.4</td>
<td>188***</td>
</tr>
</tbody>
</table>

* Capacity data listed for cases with optional 2 rows of T-8 canopy lights and 3 rows of optional lighted shelves. Adjustments must be made to this base rating for each option installed on this case. DEDUCT 23 BTUH/FT for each row of unlighted shelves. For sizing all refrigeration equipment other than TYLER, use conventional BTUH values.

** Evaporator temperature is defined as the saturated suction temperature leaving the case.

*** Air velocity measured 1 hour after defrost at the top discharge air duct using an ALNOR JR. velometer with a scoop.

FOR SPECIFIC COMPRESSOR SIZING INFORMATION, REFER TO TYLER APPLICATIONS FOR RACK SYSTEM COMPRESSORS AND/OR THE COMPRESSOR MANUFACTURERS FOR SINGLE COMPRESSORS. FOR LINE SIZING INFORMATION, REFER TO THE MISCELLANEOUS SECTION "BUFF" IN THE TYLER SPECIFICATION GUIDE.

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### Electrical Data:

Fans and Heaters (120 Volt)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CASE LENGTH</th>
<th>FANS / CASE</th>
<th>FANS / CASE</th>
<th>TOTAL STANDARD FANS</th>
<th>TOTAL ECM FANS</th>
<th>TOTAL ANTI-SWEATS</th>
<th>TOTAL ANTI-SWEATS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AMPS</td>
<td>WATTS</td>
<td>AMPS</td>
<td>WATTS</td>
</tr>
<tr>
<td>N3HMHP</td>
<td>6’</td>
<td>1</td>
<td>106</td>
<td>96.0</td>
<td>0.64</td>
<td>34.0</td>
<td>0.10</td>
</tr>
<tr>
<td>N3HMHP</td>
<td>8’</td>
<td>2</td>
<td>106</td>
<td>96.0</td>
<td>0.64</td>
<td>34.0</td>
<td>0.20</td>
</tr>
<tr>
<td>N3HMGHP</td>
<td>6’</td>
<td>1</td>
<td>106</td>
<td>96.0</td>
<td>0.44</td>
<td>22.0</td>
<td>0.10</td>
</tr>
<tr>
<td>N3HMGHP</td>
<td>8’</td>
<td>2</td>
<td>106</td>
<td>96.0</td>
<td>0.44</td>
<td>22.0</td>
<td>0.13</td>
</tr>
<tr>
<td>N3HMGHP</td>
<td>12’</td>
<td>3</td>
<td>1.59</td>
<td>144.0</td>
<td>0.66</td>
<td>33.0</td>
<td>0.20</td>
</tr>
</tbody>
</table>

** Standard lighting for this case is 1 row of canopy lights.

---

### Defrost Data:

<table>
<thead>
<tr>
<th>DEFROST TYPE*</th>
<th>DEFROSTS PER DAY</th>
<th>DURATION TIME (MIN)**</th>
<th>USAGE</th>
<th>CUT IN</th>
<th>CUT OUT</th>
<th>ELEK. THERMOSTAT / AIR SENSOR SETTINGS</th>
<th>EPR SETTINGS ***</th>
<th>CONVENTIONAL COMPRESSOR SETTINGS****</th>
<th>DEFROST WATER (LB / FT / DAY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TIME OFF</td>
<td>6</td>
<td>6</td>
<td>28</td>
<td>28°F</td>
<td>MED TEMP</td>
<td>28°F</td>
<td>28°F</td>
<td>N3HMGHP / N3HMHP</td>
</tr>
</tbody>
</table>

* All high performance cases use OFF CYCLE defrost.

** NOTE: 28 minutes is for EPR with suction stop for defrost isolation. Defrost times increases by six minutes (34 min. total) when defrost isolation is by pump down.

*** If EPR is utilized, use the settings shown in the chart. NOTE: The customer will need to set the EPR on the parallel rack or single unit to the appropriate suction temperature and the N3HM(G)HP cases must be on a separate suction stub with a separate EPR. ADD 0.5#/to EPR setting for each 1000 foot rise in elevation.

**** Required setup for a conventional unit uses an electronic thermostat to assure accurate temperature control.

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### T-8 Lighting with Electronic Ballasts (120 Volt)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CASE LENGTH</th>
<th>CANOPY LIGHTS* --- PER ROW</th>
<th>SHELF LIGHTS – PER ROW</th>
<th>MAXIMUM LIGHTING (5 ROWS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AMPS 1</td>
<td>WATTS 1</td>
<td>2</td>
</tr>
<tr>
<td>N3HM(G)HP</td>
<td>6’</td>
<td>0.40</td>
<td>0.75</td>
<td>48</td>
</tr>
<tr>
<td>N3HM(G)HP</td>
<td>8’</td>
<td>0.50</td>
<td>0.95</td>
<td>60</td>
</tr>
<tr>
<td>N3HMGHP</td>
<td>12’</td>
<td>0.70</td>
<td>1.40</td>
<td>84</td>
</tr>
</tbody>
</table>

---

### Defrost Water

- **CASE CIRCUITS**: This case requires a 120V circuit for fans, lights and anti-sweat heaters.
- **Screens are standard**: Shelving must be ordered separately. All rows of shelving require a shelf gasket. Shelves are available in 12’, 15’, 16’, 18’ and 20’ deep sizes. When multiple shelf sizes are used, position smallest shelf size on top to largest shelf size on bottom.
- **UL SANITATION** approved in accordance with ANSI/NSF – 7.

**CASE BTUH REQUIREMENTS** are calculated to produce approximately the indicated entering-air temperature with absolute maximum operating ambient limits of 75°F & 55RH.

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20-Mar-08

TYLER SPEC SHEET

MT – 20

N3HMHP/N3HMGHP
N3HMHP/N3HMGHP CROSS SECTION

Min. 5° Downslope Required on Shelving

21-3/16"
17-9/16"
3-3/8"
30-1/2"
18"
51-3/4"

24-11/16"
15-3/8"
6-3/8"
27"
33"

N3HMHP/N3HMGHP CROSS SECTION

N3HMHP/N3HMGHP FLOOR PLAN

6' Case = 72-1/4"
8' Case = 96-3/8"
12' Case = 144-1/2"

Add 1-1/2" for Standard Patch End

43" O.A.
25"
33"

Refrigeration 5/8" Suction 3/8" Liquid

Base

1/2" PVC Waste Outlet

Electric

27-3/4" to Electric
35-3/8" to Std. Front Drain

4" (Front of Case)
22" R or L
7"