# Installation Instructions Supplement

This book is a supplement to the 50TJ 60 Hz Installation, Start-Up and Service Instructions, and is to be used for 380-v 60 Hz 50TJ024 export units.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>NOMINAL VOLTAGE</th>
<th>VOLTAGE RANGE</th>
<th>COMPRESSOR</th>
<th>OFM</th>
<th>IFM</th>
<th>POWER EXHAUST</th>
<th>ELECTRIC HEAT*</th>
<th>POWER SUPPLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>No. 1</td>
<td>No. 2</td>
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<tr>
<td></td>
<td>Min</td>
<td>Max</td>
<td>RLA</td>
<td>LRA</td>
<td>RLA</td>
<td>LRA</td>
<td>Quantity</td>
<td>FLA (ea)</td>
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<td>024</td>
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<td>418</td>
<td>21.5</td>
<td>93</td>
<td>21.5</td>
<td>93</td>
<td>2</td>
<td>3.9</td>
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</tbody>
</table>

**LEGEND**

- **FLA**: Full Load Amps
- **HACR**: Heating, Air Conditioning and Refrigeration
- **IFM**: Indoor (Evaporator) Fan Motor
- **LRA**: Locked Rotor Amps
- **MCA**: Minimum Circuit Amps
- **MOCP**: Maximum Overcurrent Protection
- **NEC**: National Electrical Code (U.S.A.)
- **OFM**: Outdoor (Condenser) Fan Motor
- **RLA**: Rated Load Amps

*Heater capacity (kW) is based on heater voltage of 380 v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

†Fuse or HACR circuit breaker.

**NOTES:**

1. In compliance with NEC requirements (U.S.A. Standard) for multiphase and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker.

2. **Unbalanced 3-Phase Supply Voltage**
   - Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent of voltage imbalance.
   - % Voltage imbalance
     \[
     = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}
     \]

   EXAMPLE: Supply voltage is 380-3-50.
   - AB = 375 v
   - BC = 382 v
   - AC = 379 v
   - Average Voltage = \( \frac{375 + 382 + 379}{3} \) = 379 v
   - Determine maximum deviation from average voltage:
     - (AB) 375 – 379 = 4 v
     - (BC) 382 – 379 = 3 v
     - (AC) 379 – 379 = 0 v
   - Maximum deviation is 4 v.
   - Determine percent voltage imbalance.
     - % Voltage imbalance = \( 100 \times \frac{4}{379} \) = 1.1%
   - This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

   IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

3. MCA calculation for 50TJ024 units with electric heaters over 50 kW = (1.25 x IFM amps) + (1.00 x heater FLA).