Fig. 1 – Wiring Diagram — Model sizes 1-1/2 - 5 tons, 208/230-1
NOTES:

1. Compressor and Fan Motor furnished with inherent thermal protection.
2. To be wired in accordance with National Electric Code (N.E.C.) and local codes.
3. N.E.C. Class 2, 24 V circuit, min. 40 VA required, 60 VA on units installed with LLS.
4. Use copper conductors only from disconnect to unit.
5. Must use thermostat and sub-base as stated in pre-sale literature.
6. If indoor section has a transformer with a grounded secondary, connect the grounded side to “C” on the circuit board.
7. If any of the original wire, as supplied, must be replaced, use the same or equivalent wire.
8. Check all electrical connections inside control box for tightness.
9. Do not attempt to operate unit until service valves have been opened.
10. Use conductors suitable for at least 75ºC (167ºF).
11. It is imperative to connect 3Ø field power to unit with correct phasing. The Phase Rotation Monitor will not allow the contactor to be energized if the phasing is incorrect. If phasing is reversed, simply interchange any two of the three power connections on the field side.

LEGEND:

- FACTORY POWER WIRING
- FIELD POWER WIRING
- FACTORY CONTROL WIRING
- FIELD CONTROL WIRING
- COMPONENT CONNECTION
- 1/4 - INCH QUICK CONNECT TERMINALS
- FIELD SPLICE
- JUNCTION
- PLUG RECEPTACLE
- AUXR AUXILLARY HEAT RELAY
- CAP CAPACITOR
- *CH CRANKCASE HEATER
- *CHS CRANKCASE HEATER SWITCH
- COMP COMPRESSOR
- CTD COMPRESSOR TIME DELAY
- CONT CONTACTOR
- CB CIRCUIT BOARD
- DFT DEFROST THERMOSTAT
- DR DEFROST RELAY AND CIRCUITRY
- *DTS DISCHARGE TEMPERATURE SWITCH
- *HPS HIGH PRESSURE SWITCH
- *LPS LOW PRESSURE SWITCH
- OFM OUTDOOR FAN MOTOR
- PRM PHASE ROTATION MONITOR
- RVS REVERSING VALVE SOLENOID
- RVSR REVERSING VALVE SOLENOID RELAY

*DIP SWITCH SETTINGS

<table>
<thead>
<tr>
<th>MINUTES</th>
<th>30</th>
<th>60</th>
<th>90</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>OFF</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES)

SPEED UP
1) MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
2) SHORT FOR 5 SEC. AND RELEASE FOR FORCED DEFROST.
3) PERMANENT SHORT WILL BE IGNORED.
DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN.
DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.

NOTE:

* MAY BE FACTORY OR FIELD INSTALLED

Fig. 2 – Wiring Diagram — Model size 2-1/2 - 5 tons, 208/230-3
NOTES:
1. Compressor and Fan Motor furnished with inherent thermal protection.
2. To be wired in accordance with National Electric Code (N.E.C.) and local codes.
3. N.E.C. Class 2, 24 V circuit, min. 40 VA required. 60VA on units installed with LLS.
4. Use copper conductors only from disconnect to unit.
5. Must use thermostat, and sub-base as stated in pre-sale literature.
6. If indoor section has a transformer with a grounded secondary, connect the grounded side to "C" on the circuit board.
7. If any of the original wire, as supplied, must be replaced, use the same or equivalent wire.
8. Check all electrical connections inside control box for tightness.
9. Do not attempt to operate unit until service valves have been opened.
10. Use conductors suitable for at least 75ºC (167ºF). 
11. It is imperative to connect 3Ø field power to unit with correct phasing. The Phase Rotation Monitor will not allow the contactor to be energized if the phasing is not correct. Phasing is reversed, simply interchange any two of the three power connections on the field side.

**DIAGRAM**

**SCHEMATIC DIAGRAM**

(LEGEND)

- FACTORY POWER WIRING
- FIELD POWER WIRING
- FACTORY CONTROL WIRING
- FIELD CONTROL WIRING
- CONDUCTOR ON CIRCUIT BOARD
- COMPONENT CONNECTION
- 1/4 - INCH QUICK CONNECT TERMINALS
- FIELD SPLICE
- JUNCTION
- PLUG RECEPTACLE
- AUXR  AUXILIARY HEAT RELAY
- CAP  CAPACITOR
- *CH  CRANKCASE HEATER
- *CHS  CRANKCASE HEATER SWITCH
- COMP  COMpressor
- CTD  COMpressor TIME DELAY
- CONT  CONTACTOR
- CB  CIRCUIT BOARD
- DFT  DEFROST THERMOSAT
- DR  DEFROST RELAY AND CIRCUITY
- *DTS  DISCHARGE TEMPERATURE SWITCH
- *HPS  HIGH PRESSURE SWITCH
- *LPS  LOW PRESSURE SWITCH
- OFM  OUTDOOR FAN MOTOR
- OFR  OUTDOOR FAN RELAY
- PRM  PHASE ROTATION MONITOR
- RV/S  REVERSING VALVE SOLENOID
- RVSR  REVERSING VALVE SOLENOID RELAY

* MAY BE FACTORY OR FIELD INSTALLED

**NOTE**

1. **DIP SWITCH SETTINGS**

   - **FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES):**
   - **SPEED UP**
     - LAMPER TEST (PNK USE METAL OBJECT), FIELD SPEED UP CYCLE
     - 1) MOMENTARY SHORT PNK AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
     - 2) SHORT FOR 5 SEC. AND RELEASE FOR FORCED DEFROST.
     - 3) PERMANENT SHORT WILL BE IGNORED.
     - DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN.
     - DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.

**NOTE**

THIS DEFROST CONTROL BOARD CONTAINS A FIVE MINUTE SHORT CYCLE PROTECTOR. A FIVE MINUTE DELAY WILL OCCUR BETWEEN COMPRESSOR OFF/ON CYCLES.

JUMPERED TEST PINS (USE METAL OBJECT), FIELD SPEED-UP CYCLE

1) MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
2) SHORT FOR 5+ SEC. AND RELEASE FOR FORCED DEFROST.
3) PERMANENT SHORT WILL BE IGNORED.
DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN.
DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.

DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN.
DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.

NOTE:

- **30 MINUTES**
- **60 MINUTES**
- **90 MINUTES**
- **120 MINUTES**

**NOTE**

Fig. 3 – Wiring Diagram — Model size 3 - 5 tons, 460/3