Maintenance Bulletin (MB-0030)

Motor/Terminal Plate Check

Version 2, January 2014

"-2NU" Dual voltage CE4 and BE-Series Motor Check and Terminal Plates Replacement

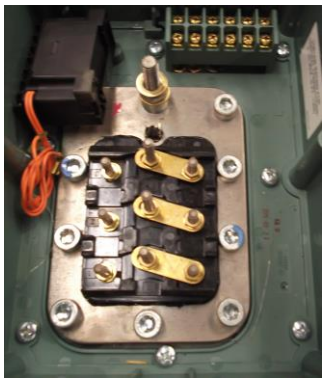
Overview

Continuity of the motor wires should be verified before a compressor motor is diagnosed as grounded, shorted or dead. In order to check the continuity, the removal and disassembly of the terminal plate is required. If the continuity of the motor checks out, a simple terminal plate replacement will resolve the issue.

De-pressurize / Dis-assemble

Remove / recover the refrigerant (or pressure) from the compressor by approved means to atmospheric pressure. Remove all the jumpers and terminal plate bolts. Disconnect the wires coming from the motor to the terminal plate on the underside of the terminal plate. Wires under the terminal plate are numbered to match their posts.

- **CAUTION: be careful not to drop any parts into the motor area while removing and disassembling the terminal plate.**



Continuity check

Check the reading of each motor wire to ground. Also check the reading of the thermistor wires to ground. The reading should be open (no resistance/continuity).

Check the continuity between the following wire combinations:

1-4	2-5	3-6
7-8	7-9	8-9

The value should be between 0.3 – 2.0 Ohms.

All combinations should give a similar value within range of each other:
However, the 7-8-9 wires may be slightly higher. For example:

1-4: 0.6 Ω	7-8: 0.8 Ω;
2-5: 0.6 Ω	7-9: 0.9 Ω
3-7: 0.5 Ω	8-9: 0.9 Ω

Check the resistance between the wires for the thermistors (M1 and M2). At ambient conditions the resistance between the two wires should be between 150-650 Ohms.

If the continuity of the motor and the thermistors are within limits, refer to document TB-0028C for instruction on replacing the terminal plate.