



# Single-Phase Motors & Controls

## MAINTENANCE

### Ohmmeter Tests

#### QD Control Box (Power Off)

##### A. START CAPACITOR

1. Meter Setting: R x 1,000.
2. Connections: Capacitor terminals.
3. Correct meter reading: Pointer should swing toward zero, then back to infinity.

##### B. POTENTIAL (VOLTAGE) RELAY

###### Step 1. Coil Test

1. Meter setting: R x 1,000.

2. Connections: #2 & #5.

3. Correct meter readings:

For 220-240 Volt Boxes

4.5-7.0 (4,500 to 7,000 ohms).

###### Step 2. Contact Test

1. Meter setting: R x 1.

2. Connections: #1 & #2.

3. Correct meter reading: Zero for all models.

### Ohmmeter Tests

#### Integral Horsepower Control Box (Power Off)

##### A. OVERLOADS (Push Reset Buttons to make sure contacts are closed.)

1. Meter Setting: R x 1.
2. Connections: Overload terminals.
3. Correct meter reading: Less than 0.5 ohms.

##### B. CAPACITOR (Disconnect leads from one side of each capacitor before checking.)

1. Meter Setting: R x 1,000.
2. Connections: Capacitor terminals.
3. Correct meter reading: Pointer should swing toward zero, then drift back to infinity, except for capacitors with resistors which will drift back to 15,000 ohms.

##### C. RELAY COIL (Disconnect lead from Terminal #5)

1. Meter Setting: R x 1,000.
2. Connections: #2 & #5.
3. Correct meter readings: 4.5-7.0 (4,500 to 7,000 ohms) for all models.

##### D. RELAY CONTACT (Disconnect lead from Terminal #1)

1. Meter Setting: R x 1.
2. Connections: #1 & #2.
3. Correct meter reading: Zero ohms for all models.

**CAUTION:** The tests in this manual for components such as capacitors, and relays should be regarded as indicative and not as conclusive. For example, a capacitor may test good (not open, not shorted) but may have lost some of its capacitance and may no longer be able to perform its function.

To verify proper operation of relays, refer to operational test procedure described on Page 34, Section B-2.