# Electric Heat System Evaluation:

**Clients Name:**

**Job #:**

**Date:**

## AC / Heat Pumps

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>PK / SS</th>
<th>Year</th>
<th>Tons / BTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. AC SEER</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B. HP HSPF COP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Window EER</td>
<td></td>
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</tbody>
</table>

## Heating Unit Location

<table>
<thead>
<tr>
<th>Make &amp; Model #</th>
<th>Unit Type</th>
<th>KW'S</th>
<th>Primary/Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B.</td>
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<tr>
<td>C.</td>
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## PRE-EVALUATION

(Visual Inspection: Complete Unit)

<table>
<thead>
<tr>
<th>P/F</th>
<th>PASS OR FAIL</th>
<th>Comments</th>
<th>P/F</th>
</tr>
</thead>
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### Coil Condition

- Refrigerant Lines (Leaks)
- Condensate Lines
- Filter Condition / Size
- Blower Motor Condition
- Organic Debris in Ducts
- Condensation on / in Ducts
- Duct Sized Correctly
- Supply Registers Open
- Return Ducting Unrestricted

### Wiring Conditions

- Burned or Frayed Wires
- Missing or Disconnected Wires

1) Verify the presence of electricity with Volt-Ohm-Meter or tic tracer. _____Y _____N.

   *(Safety: Make sure the furnace cabinet is not energized!)*

2) From the manufacturers data plate, record the following: *(Electric Furnace or Indoor Split system)*

   **Indoor Supply Circuit Type:** Single _______ Dual.

   **VAC Rating:** _____ Total AMP Draw _____ **Maximum** over current protection rating: _____.
   **Circuit 1:** Wire Size L1 _____, L2 _____, C _____, G ____. Equipment Breaker/Fuse: _____.
   **Circuit 2:** Wire Size L1 _____, L2 _____, C _____, G ____. Equipment Breaker/Fuse: _____.
   **Circuit 3:** Wire Size L1 _____, L2 _____, C _____, G ____. Equipment Breaker/Fuse: _____.
   **Minimum Return air grill size:** _______. Note Location of the Thermostat: ____________.

3) From the manufacturers data plate, record the following: *(Outdoor Split System or Package Unit)*

   **Outdoor Supply Circuit Type:** Single. Insert Disconnect (W/I Sight) ________.

   **VAC Rating:** _____ Total AMP Draw _____ Wire Size L1 _____, L2 _____, C _____, G _____.
   **Maximum** over current protection rating: _____ Equipment Breaker/Fuse: _____.

   **Auxiliary Heat - Circuit Type:** Single _______ Dual _______. Insert Disconnect ________

   **VAC Rating:** _____ Total AMP Draw _____ **Maximum** over current protection rating: _____.

## POST INSPECTION

<table>
<thead>
<tr>
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<th>PASS OR FAIL</th>
<th>Comments</th>
<th>P/F</th>
</tr>
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<tbody>
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</tbody>
</table>
Circuit 1: Wire Size L1_____, L2 _____, C _____, G _____. Equipment Breaker/Fuse: _____.
Circuit 2: Wire Size L1_____, L2 _____, C _____, G _____. Equipment Breaker/Fuse: _____.

4) At service panel: Record fuse/breaker size of the furnace circuit: **Indoor_____ Outdoor_____.**

**Indoor**: Are the breakers amp ratings within proper size range? _____Y _____N.
**Outdoor**: Are the breakers amp ratings within proper size range? _____Y _____N.

Is branch circuit wiring correctly sized? _____Y _____N. Use wire gauge to verify wire size.

NOTE: If data plate information is not present, refer to NFPA-70 NEC for circuit breakers and wiring size. Skip to the analysis section to determine amp draw of unit.

**UNIT ANALYSIS (To be performed by qualified evaluator or technician)**
**Heating unit voltage check: (unit not activated)**

1) Take a voltage reading across the two hot legs: **Indoor: _____ Outdoor: _____ Aux:_________ Volts**
   *(Voltage should be 240 volts, plus or minus 10%)*

**TOTAL AMP DRAW UNIT ACTIVATED.**

   1) Take an amp draw test by clamping an amp meter around one of the 120 volt "hot" legs of incoming main supply. On a dual circuit supply, clamp amp meter around one leg of each supply circuit, measure the amp draw of each, and add together for the total amp draw. Record total amp draw after unit has operated a sufficient time: **Indoor _____ Outdoor _______ AMPS.** Do these amp readings match the data plate? _____Y _____N. **IF NO, a problem exists in the unit that must be diagnosed.**

**PERFORM TEMPERATURE RISE / DROP TEST**

1) Supply Temp _____ minus Return Temp _____ = Temperature Rise _______. (40-70 degrees is normal) Proper range _____Y _____N.
2) Supply Temp _____ minus Return Temp _____ = Temperature Drop _______. (18-20 degrees is normal) Proper range _____Y _____N.

   **Description of problems:**
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

**POST INSPECTION**

VAC Rating: _____ **Maximum** over current protection rating: _____
Circuit 1: Wire Size L1_____, L2 _____, C _____, G _____. Equipment Breaker/Fuse: _____.
Total AMP Draw _____. VAC Rating: _____ **Maximum** over current protection rating: _____.
Circuit 2: Wire Size L1_____, L2 _____, C _____, G _____. Equipment Breaker/Fuse: _____.
Total AMP Draw _____. VAC Rating: _____ **Maximum** over current protection rating: _____.
Circuit 3: Wire Size L1_____, L2 _____, C _____, G _____. Equipment Breaker/Fuse: _____.
Total AMP Draw _____. VAC Rating: _____ **Maximum** over current protection rating: _____.
Wire Size Correct? _____Y _____N

**POST INSPECTION CERTIFICATION**: I certify that ALL repairs have been performed in compliance with Energy Systems policies and testing standards of the Kentucky Weatherization Program Manual, and to the best of my knowledge all energy systems are functioning properly and Regular Weatherization measures can now be performed.