

# Using the CEE/ARI Online Database to perform a search for ENERGY STAR HVAC Equipment

#### Section I

- 1.Go to <a href="http://www.ceehvacdirectory.org/">http://www.ceehvacdirectory.org/</a>
- 2.Read Disclaimer, and click on "I Accept"
- 3. Scroll to bottom of this page and click on "Consumer"





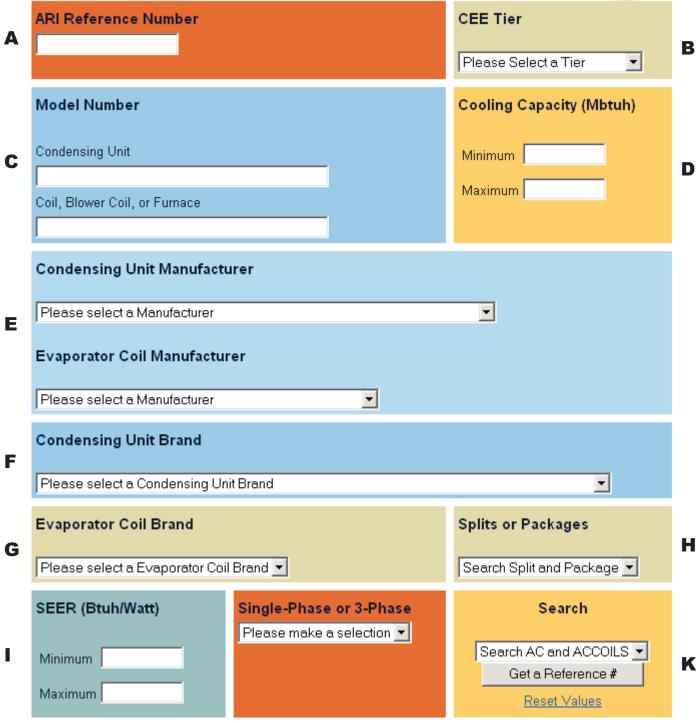


- 4a. To perform a search on Central Air Conditioning components, click on the Air Conditioner picture as seen above. Go to Section II of this document.
- 4b. To perform a search on Heat Pump components, click on the Heat Pump picture as seen above. Go to Section III of this document.



## **Central Air Conditioners**

#### Section II - Sections of the Search Page for Central Air Conditioning





### **Central Air Conditioners**

#### Sections of the Search Page for A/C

#### Minimum ENERGY STAR Performance Standard

	Cooling		Heating
	SEER	EER	HSPF
Split	13	11	8
Packaged	12	10.5	7.6

A. ARI Reference Number - this is a unique numerical representation for a condenser and evaporator combination that has been certified and identified by ARI. This field is not normally used for searching, so in most cases, this field can be left blank.

- B. CEE Tier this section allows parties that utilize the CEE efficiency tiers to narrow their search. For the purpose of searching for ENERGY STAR qualified equipment, please use "Residential Tier 1"
- C. Model Number use this section if you know the actual model number of either the outdoor condensing unit, or the indoor evaporator. The model number for a condenser, or a packaged unit can be entered in the first line under "Condensing Unit". DO NOT use wildcard characters when using this input. You can put in a partial strings to search this field. Be careful when using this method as manufacturers often change a letter or two in their model numbers from year to year, or as engineering improvements are made. If you perform a search with no results, try removing a character at a time from the end of the model number string and resubmit the search until you get some results.
- D. Cooling Capacity (Mbtuh) in this field you can narrow your search to the size of the system you need. Mbtuh means 1000's of British Thermal Units per Hour. Air conditioner sizes are often spoken in units referred to as Tons. A Ton of air conditioning is equal to 12,000 Btuh of capacity, so a 3-ton system is equal to 36,000 Btuh. The best way to search this field is to input a number 3,000 Btuh less than the size you are looking for in the "Minimum" field, and a number 3,000 Btuh greater than the size you are looking for in the "Maximum" field. To search for 3-ton systems (36,000 Btuh) we recommend using 33,000 Btuh for the minimum, and 39,000 Btuh for the maximum.
- E. Condensing Unit Manufacturer & Evaporator Coil Manufacturer the first field (Condensing Unit) is used to search condensers by major brand (i.e.; Carrier, Heil, Lennox, etc.). The second field is used to search for independent coil manufacturers. This second list does not contain the major manufacturers, as they are automatically included in any search of condensers. In most searches, you can leave the Evaporator Coil Manufacturer field blank unless you are using and know the independent evaporator brand.
- F. Condensing Unit Brand this field is used to narrow your search by model brand or manufacturer "series" in conjunction with a search in the Condensing Unit Manufacturer field in section E. This drop-down list contains all manufacturing brands (not just those related to the Condenser Manufacturer selected in section E), if you choose a series from another



### **Central Air Conditioners**

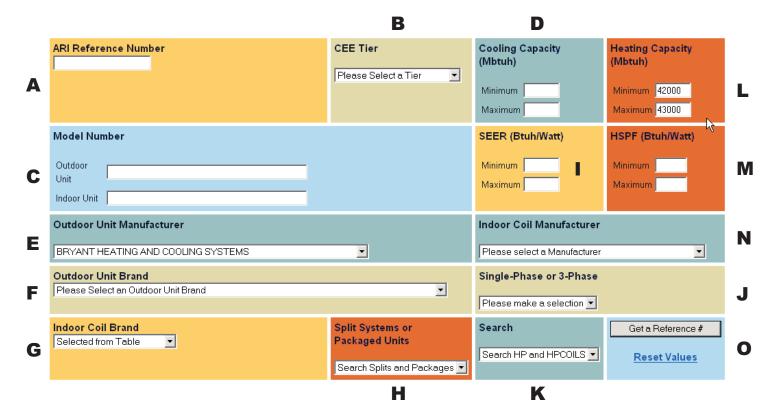
#### Sections of the Search Page for A/C - continued

manufacturer, you will get no results when you search. If you get no search results after using this field, perform your search without selecting anything from this field.

- G. Evaporator Coil Brand like section F, this field is used to narrow your search by series for independent evaporator coil manufacturers. You will not find any of the major brand names in this field, and in most cases, you can ignore this field.
- H. Splits or Packages in this field you can narrow your search to either "split" units where the condenser is housed in a separate box outdoors, or to "packaged" units, where both the condenser and evaporator are housed in a single box. Packaged units are typically seen in hotels and apartments, whereas split units are more commonly found in typical residential applications.
- I. SEER (Btuh/Watt) in this field, you can narrow your search by the Season Energy Efficiency Ratio (SEER) or energy rating. For example if you are only interested in 13 SEER units, you could enter 13 in the "Minimum" field, and 13.1 in the "Maximum" field. In most cases you can leave these field blank as you will still only get ENERGY STAR qualified equipment. Note: there is no field for searching by EER, nor will the results show you the EER, however, all results listed must have a minimum EER respective of the minimum criteria for split or packaged systems.
- J. Single-Phase or 3-Phase this field refers to the type of electrical service supplying a location, and is typically only an option in larger manufacturing or industrial facilities. For almost all residential applications, this field can be ignored, or you may select "Single-phase" to narrow your search.
- K. Search this field allows you to narrow your search to just combinations by the major manufacturers, or to include condenser-evaporator combinations with independent coil manufacturers. In most cases you can leave this field in its default state. Also in this section is a button labeled "Get a Reference #" this is actually the button you press to perform a search.



#### Section III - Sections of the Search Page for Heat Pumps



#### Sections of the Search Page for HP

#### Minimum ENERGY STAR Performance Standard

	Cooling		Heating
	SEER	EER	HSPF
Split	13	11	8
Packaged	12	10.5	7.6

A. ARI Reference Number - this is a unique numerical representation for a condenser and evaporator combination that has been certified and identified by ARI. This field is not normally used for searching, so in most cases, this field can be left blank.

- B. CEE Tier this section allows parties that utilize the CEE efficiency tiers to narrow their search. For the purpose of searching for ENERGY STAR qualified equipment, please use "Residential Tier 1"
- C. Model Number use this section if you know the actual model number of either the outdoor unit, or the indoor unit. (NOTE: You may have noted that the nomenclature for heat pumps is a little different than for air conditioners. With air conditioning, the refrigeration circuit only flows in one direction, so the indoor unit is always the evaporator, and the outdoor unit is always the



#### <u>Sections of the Search Page for HP - continued</u>

condenser. With heat pumps, in air-cooling mode, this is also true, but heat pumps have a reversing valve, so when they are in heating mode, the evaporator is actually the outdoor unit, and the condenser is the indoor unit. This is why you will now see these components listed as the indoor and outdoor units respectively). The model number for a condenser, or a packaged unit can be entered in the first line under "Condensing Unit". DO NOT use wildcard characters when using this input. You can put in a partial strings to search this field. Be careful when using this method as manufacturers often change a letter or two in their model numbers from year to year, or as engineering improvements are made. If you perform a search with no results, try removing a character at a time from the end of the model number string and resubmit the search until you get some results.

- D. Cooling Capacity (Mbtuh) in this field you can narrow your search to the size of the system you need. Mbtuh means 1000's of British Thermal Units per Hour. Air conditioner sizes are often spoken in units referred to as Tons. A Ton of air conditioning is equal to 12,000 Btuh of capacity, so a 3-ton system is equal to 36,000 Btuh. The best way to search this field is to input a number 3,000 Btuh less than the size you are looking for in the "Minimum" field, and a number 3,000 Btuh greater than the size you are looking for in the "Maximum" field. To search for 3-ton systems (36,000 Btuh) we recommend using 33,000 Btuh for the minimum, and 39,000 Btuh for the maximum.
- E. Outdoor Unit Manufacturer this field is used to search for outdoor units (similar to the outdoor condenser on air conditioning units) by major brand (i.e.; Carrier, Heil, Lennox, etceteras). Select from the drop-down list the manufacturer you are interested in.
- F. Outdoor Unit Brand this field is used to narrow your search by model brand or manufacturer "series" in conjunction with a search in the Outdoor Unit Manufacturer field in section E. This drop-down list contains all manufacturing brands (not just those related to the Outdoor Unit Manufacturer selected in section E), and if you choose a series from another manufacturer, you will get no results when you search. If you get no search results after using this field, perform your search without selecting anything from this field.
- G. Indoor Coil Brand like section F, this field is used to narrow your search by series for independent indoor coil manufacturers. You will not find any of the major brand names in this field (they are automatically included when you select an outdoor unit by manufacturer or brand), and in most cases, you can ignore this field, unless you are using an independent coil manufacturer and need to know what outdoor unit combinations qualify with this coil.
- H. Splits or Packages in this field you can narrow your search to either "split" units where the outdoor unit (analogous to the condensing unit on central air conditioners) is housed in a



#### Sections of the Search Page for HP - continued

separate box outdoors, or to "packaged" units, where both the condenser and evaporator are housed in a single box (in heat pumps, either coil can be a condenser or evaporator depending on which mode it is operating in). Packaged units are typically seen in hotels and apartments, whereas split units are more commonly found in typical residential applications.

- I. SEER (Btuh/Watt) in this field, you can narrow your search by the Season Energy Efficiency Ratio (SEER) or energy rating. For example if you are only interested in 13 SEER units, you could enter 13 in the "Minimum" field, and 13.1 in the "Maximum" field. In most cases you can leave these field blank as you will still only get ENERGY STAR qualified equipment. Note: there is no field for searching by EER, nor will the results show you the EER, however, all results listed must have a minimum EER respective of the minimum criteria for split or packaged systems.
- J. Single-Phase or 3-Phase this field refers to the type of electrical service supplying a location, and is typically only an option in larger manufacturing or industrial facilities. For almost all residential applications, this field can be ignored, or you may select "Single-phase" to narrow your search.
- K. Search this field allows you to narrow your search to just combinations by the major manufacturers, or to include outdoor-indoor combinations with independent indoor coil manufacturers. In most cases you can leave this field in its default state.
- L. Heating Capacity (Mbtuh) this field is analogous to the cooling capacity section D. In this section you can input the heating capacity requirements by thousands (1000's) of Btu's. As in cooling searches, we recommend using values 3,000 Btu's less than your target for the minimum input, and 3,000 Btu's greater than your target search. Most heat pumps (those not optimized for cooling climates) will have a lower heating capacity than cooling capacity. If you are looking for a 36,000 Btu (3-ton) air conditioner, you will likely get heating capacities of several thousand Btu's lower. (NOTE: If you have a heating load higher than your cooling load requirements, you will have to decide whether to size the heat pump system for the cooling requirements or the heating requirements. In most moderate climates, you should size it for the cooling requirements. In very northern climates, it may be advantageous to size for the heating requirements, and utilize a two-stage system to minimize the impacts of over sizing the cooling capacity. The Air Conditioning Contractors of America (www.acca.org) publishes design manuals for assisting in proper sizing and equipment selection for these situations, and heating/cooling contractors should always follow these conventions when designing and installing a system).

M. HSPF (Btuh/Watt) this field is analogous to the cooling efficiency in section I. You can use the Heating Season Performance Factor (HSPF) to narrow your search by efficiency. The current



#### Sections of the Search Page for HP - continued

minimum federal efficiency standard for "split" system heat pumps is 6.8 HSPF. ENERGY STAR qualified units start at 7.6 for packaged units, and 8.0 for split systems. In most cases, you can leave this field blank.

N. Indoor Coil Manufacturer - This field is used to search for independent coil manufacturers. This second list does not contain the major manufacturers, as they are automatically included in any search of condensers. In most searches, you can leave the Evaporator Coil Manufacturer field blank unless you are using and know the independent evaporator brand

O. Untitled Section - In this section is a button labeled "Get a Reference #" this is actually the button you press to perform a search. Also in this section, you can clear the search parameter values by clicking on the hyperlinked text "Reset Values".

### Need Additional Help in Searching for ENERGY STAR qualified products?

Direct your questions to:

ENERGY STAR HVAC The Cadmus Group 57 Water Street Watertown, MA 02472

E-Mail: hvac@cadmusgroup.com

**ENERGYSTAR Hotline: 888-STAR-YES**