



ENERGY STAR® Most Efficient 2022 HVAC Application

Required information for system status and messaging requirements for CAC/ASHP (both ducted and ductless), Furnace and GHP systems.

Submitted data will be used by the U.S. Environmental Protection Agency (EPA) only for ENERGY STAR Most Efficient reviews and will be closely controlled. If requested under the Freedom of Information Act (FOIA), EPA will argue that the data is exempt. Any information used will be masked by EPA so as to protect the confidentiality of the Partner.

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Which models/combinations does this information apply to? Include all that are relevant and provide a separate spreadsheet if necessary. All combinations submitted must be certified to the current relevant ENERGY STAR specification to be considered.

Split CAC/ASHP		Packaged CAC/ASHP	Furnace	GHP
Outdoor Unit	Indoor Unit			

1. Automatic Setup Capabilities

- a. Which of the following capabilities does the system, consisting of the main unit and a paired thermostat or controller, offer to ensure a quality installation? (check all that apply)

System measures and self-verifies that the refrigerant charge is within manufacturer tolerances.

System measures and displays airflow and verifies that it is within OEM settings or measures and displays external static pressure and fan speed settings.

System measures and reports the watt draw of the blower fan.

System provides an easily accessible test mode that locks the system into the highest fan speed and compressor capacity settings available such that refrigerant charge, airflow or external static pressure, and blower fan watt draw can be measured by the technician.

System automatically discovers/recognizes compatible communicating outdoor and indoor units.

System automatically discovers/recognizes communicating humidifiers and dehumidifiers.

System automatically prompts the installer to run preconfigured system tests following initial setup.

Other

If other, please describe.

- b. What kind of interface is needed for the automatic setup features (installer app, thermostat communication, internal to the unit)?

- c. What other measurements or faults can be identified during installation, and is this completed by the thermostat/controller or the contractor? How are these displayed?

- d. If the system can measure the refrigerant charge how is this information made available for use by a technician?

- e. If the system can measure and power draw of the blower fan, how is this information made available for use by a technician?

- f. *Ducted models only:* If the system can measure airflow or external static pressure and fan speed settings, how is the information made available for use by a technician?

- g. If the system can identify the model numbers and quantity of indoor units connected, how are identifications communicated via the thermostat/controller?

2. Fault History

- a. How and where is the fault history alphanumerically displayed? What external equipment, if any, is necessary to access the history?

- b. How many recent faults can the service personnel access?

3. Maintenance Capabilities

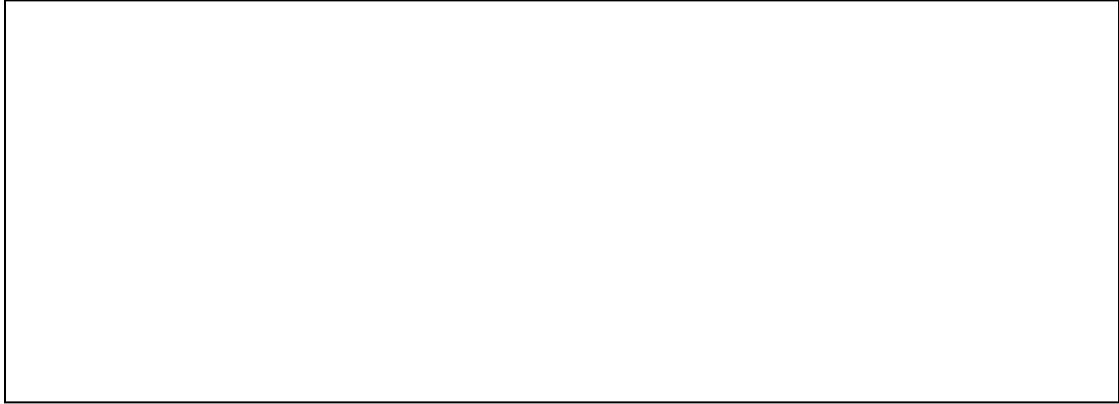
- a. How does the unit or controller enable remote assessment or service by service personnel?

- b. What other capabilities does the equipment have to facilitate appropriate maintenance? Are there other notable advanced features specific to system status and messaging that the unit/system provides?

4. Resident Alerts

- a. How does the unit/system estimate when to alert residents to check the filter?

- b. Where is the filter alert displayed on the thermostat/controller and how are residents alerted that air filter(s) are in need of checking, cleaning, or changing? Are residents notified through any method other than a thermostat/controller on the wall?
 - i. **Note: This alert must be displayed in plain text and specify action to be taken, i.e. “The filter has operated for 100 hours. Please clean the filter per the instructions in the User Manual.”**

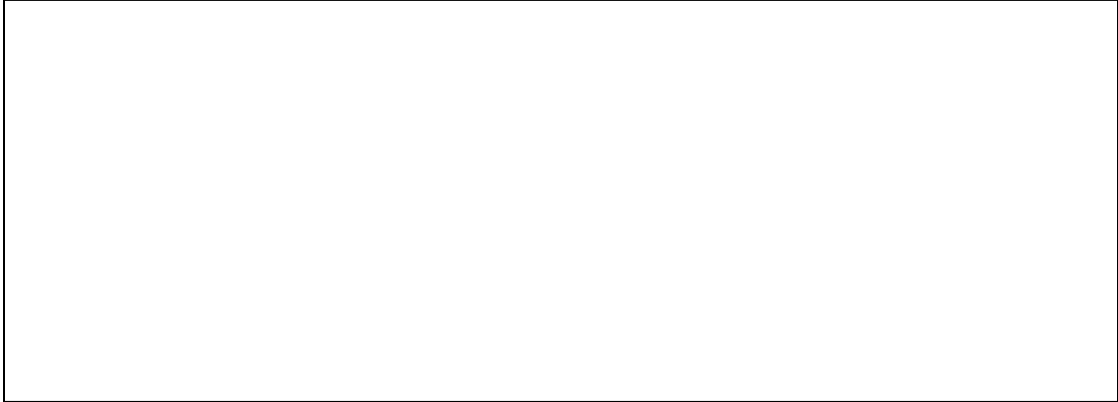


Please provide screenshots of the filter alert as displayed to the consumer in the field below or include as a separate file.

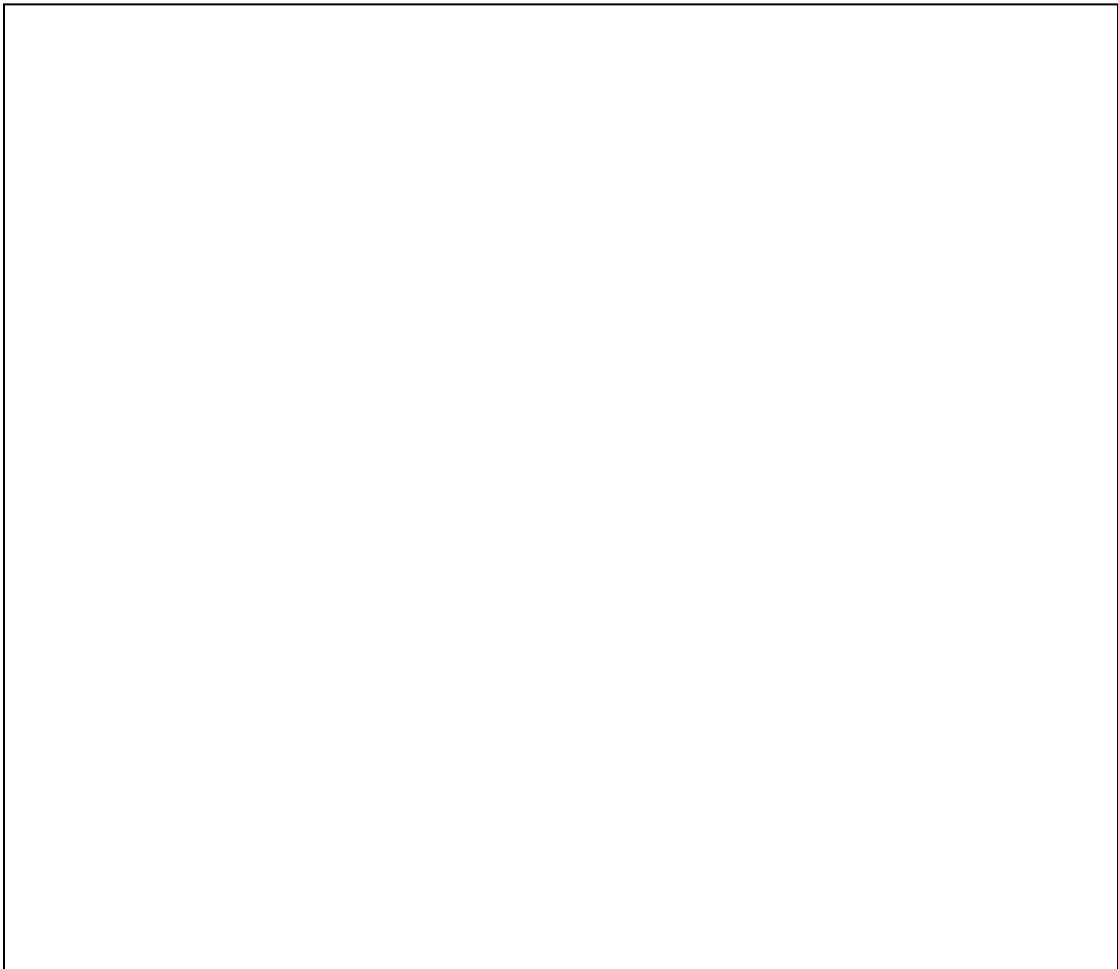


c. How are residents alerted when professional service is needed?

- i. **Note: This alert must be displayed in plain text and specify action to be taken, i.e. "The unit has experienced an error – please contact a service professional for repair."**



Please provide screenshots of the service alert as displayed to the consumer in the field below or include as a separate file.



5. What type of compressor(s) and staging does this equipment have? (Not applicable for furnaces or for water-to-water GHP)