AHRI Certification Program Scopes - COOLING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Air-to-Air Energy Recovery Ventilators (AHRI Std. 1060)	Air-to-Air Energy Recovery Ventilation Product Section	Includes air-to-air heat exchangers for use in Energy Recovery Ventilation Equipment, rated at or above 50 scfm but below or equal to 5,000 scfm at AHRI Standard Rating Conditions. In addition, Air-to-Air Heat Exchangers for use in Energy Recovery Ventilation Equipment rated above 5,000 scfm are included if the participant's basic model group(s) for those models include at least one model rated at or above 50 scfm but below or equal to 5,000 scfm. Specificially excluded from this scope are products currently HVI certified
Automatic Commercial Ice-Cube Machines and Ice Storage Bins (AHRI Stds. 810 & 820)	Automatic Commercial Ice Makers Product Section	Includes automatic commercial ice-make consisting of a condensing unit and ice-making section operating as an integrated unit for making and harvesting ice in batches. Also included is the non-refrigerated ice-storage bin.
Central Station Air-Handling Units (AHRI Std. 430)	Central Station Air-Handling Units Subsection	Includes central station air-handling units with a factory-made encased assembly consisting of a fan or fans and other necessary equipment to perform one or more of the functions of circulating, cleaning, heating, cooling, humidifying, dehumidifying and mixing of air; and shall not contain a source of cooling or heating other than gas or electric heat. This device is capable of use with duct work having a total static resistance of at least 0.5 in H2O [0.12 kPa].
Commercial Refrigerated Display Merchandisers and Storage Cabinets (AHRI Std. 1200)	Commercial Refrigerator Manufacturers Section	This certification program applies to remote and self-contained commercial refrigerated display merchandisers and storage cabinets provided that the cases are equipped and designed to work with electricaly driven direct expansion type systems.
Data Communication Cooling (AHRI Stds. 1360)	Datacom Cooling Product Section	DCOM Certification Program covers 60 Hz floor mounted Computer and Data Processing Room Air Conditioners (CDPR) of three (3) types: up-flow air discharge, down-flow air discharge and horizontal free air discharge, which utilize water, or chilled water, or HFC refrigerants, with the following exclusions: • For chilled water samples: • CDPR with total cooling capacity greater than 253 kW; • CDPR with airflow rate greater than 36,000 cfm; • CDPR with flow rate greater than 180 gpm; • CDPR with THR greater than 317 kW; and • Horizontal rooftop samples. • For air-cooled and water-cooled samples: • CDPR with total cooling capacity greater than 225 kW; • CDPR with airflow rate greater than 30,000 cfm; • CDPR with flow rate greater than 160 gpm; • CDPR with THR greater than 281 kW; And • Horizontal rooftop samples.
Direct Geo Exchange Systems (AHRI Std. 870)	Direct Geo Exchange Systems Product Section	Includes heat pumps consisting of one or more factory made assemblies normally including an indoor conditioning coil with air moving means, compressors) and refrigerant-to-earth heat exchanger(s), including means to provide a heating function or a cooling function or both.
Forced Circulation Air-Cooling and Air-Heating Coils (AHRI Std. 410)	Air-Cooling and Air Heating Coils Subsection	The certification program applies to forced-circulation air cooling coils under non-frosting conditions and forced circulation air-heating aoils only intended for: - Field installation (built-up systems); - Use in central station air-conditioning units; and - Use in central station heating or heating and ventilating units.
Heat Pump Pool Heaters (AHRI Std. 1160)	Heat Pump Pool and Spa Heaters Product Section	Includes heat pump pool heaters normally consisting of one factory-made assembly, which contains the air moving device, compressor, and refrigerant-to-water heat exchanger. Some models may have means of cooling the water. Other models may consist of more than one assembly to be used together for the purpose of cooling and heating air. Models with separated assemblies shall be designed to be used together, with certification based on the use of matched assemblies. A heat pump pool heater uses ambient air as the heat source.

AHRI Certification Program Scopes - COOLING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Indoor Pool Dehumidifiers (AHRI Std. 910)	Dehumidifiers Product Section	This program applies to all production line OEM and PBM production models of residential, commercial, and industrial IPDs, as defined in Section 1.2 of the IPD OM and rated below a Moisture Removal Capacity (MRC) of 25.0 kg/h at Standard Rating Conditions per Table 2 of AHRI Standard 910. For external resistance, refer to Table 3 of AHRI Standard 910.
Liquid to Liquid Heat Exchangers (AHRI Std. 400)	Liquid-to-Liquid Heat Exchangers Subsection	Applies to Liquid to Liquid Heat Exchangers, including: - Plate-Type Heat Exchangers; - Shell-and-Tube Heat Exchangers; - Shell-and-U-Tube Heat Exchangers; - Shell-and-Coil Heat Exchangers; and - Counter-Flow Shell-and-Tube Heat Exchangers.
Non-Condensable Gas Purge Equipment for Use With Low Pressure Centrifugal Liquid Chillers (AHRI Std. 580)	Chemicals Subsection	Includes purge systems used in conjunction with lowpressure centrifugal liquid chillers.
Packaged Terminal Air Conditioners (AHRI Std. 310/380)	Packaged Terminal Subsection	Includes packaged terminal air-conditioners as defined below: A packaged terminal air-conditioner consists of a wall sleeve and a separate encased combination of heating and cooling assemblies intended for mounting through the wall. It includes refrigeration components, separate outdoor louvers, forced ventilation, and heating availability by hot water, steam, or electric resistance.
Packaged Terminal Heat Pumps (AHRI Std. 310/380)	Packaged Terminal Subsection	Includes packaged terminal heat pumps as defined below: A packaged terminal heat pump consists of a separate, unencased refrigeration system installed in a cabinet of similar function and configuration to that of a packaged terminal air-conditioner. It utilizes reverse cycle refrigeration as its prime heat source and should have available other supplementary heating by hot water, steam, or electric resistance.
Reclaimed Refrigerant (AHRI Std. 700)	Refrigerant Reclaimers Subsection	Includes reclaimed refrigerant that is regularly processed for reuse, i.e., refrigerants processed more than once a year or those for which a reclaimer regularly publishes data, catalogs, specification sheets, literature or advertising or otherwise advertises the ability to reclaim.
Refrigerant Recovery/Recycling Equipment (AHRI Std. 740)	Chemicals Subsection	Includes all production models, of refrigerant recovery/recycling equipment. Types included are recovery equipment, recycling equipment, and recovery/recycling equipment. The scope does not preclude equipment capable of reclamation in a recycling certification mode.
Refrigerant Testing Laboratories (AHRI Std. 700)	Refrigerant Reclaimers Subsection	Includes verification for all participating refrigerant testing laboratories, performing ARI 700 testing on any new or reclaimed refrigerants.
Room Fan Coil Units (AHRI Std. 440)	Room Fan Coils Units Subsection	The certification program includes: Room Fan-Coil is that provide the function of cooling, heating or cooling and heating but does not provide the cooling or heating source. It is usually designed for free air delivery into a room, but may be used with minimal duct work having a static resistance of 0.25 in of water gauge [62 Pa] or less and may be designed for furred-in installation or with an enclosure for application within the conditioned space.

AHRI Certification Program Scopes - COOLING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Single Package Vertical Air Conditioners (AHRI Std. 390)	Single Package Vertical Unit Subsection	Includes single package vertical air-conditioners as defined below: A single package vertical air conditioner consists of a separate encased or unencased combination of cooling and optional heating components, factory assembled as a single package, and intended for exterior mounting on, adjacent interior to, or through, an outside wall. The major components of the unit are arranged vertically, and may contain separate indoor grille(s), outdoor louvers, various ventilation options, indoor free air discharge, ductwork, wall plenum or a sleeve. Heating components may include electrical resistance, steam, hot water, gas or no heat, but may not include reverse cycle refrigeration as a heating means. This equipment either alone or in combination with a heating plant, provides air-circulation, air-cleaning, cooling with controlled temperature and dehumidification, and may optionally include the function of heating and possible humidifying and ventilation.
Single Package Vertical Heat Pumps (AHRI Std. 390)	Single Package Vertical Unit Subsection	Includes single package vertical heat pumps as defined below: A single package vertical heat pump consists of a separate encased or unencased combination of heating and optional cooling components, factory assembled as a single package, and intended for exterior mounting on, adjacent interior to, or through, an outside wall. The major components of the unit are arranged vertically, and may contain separate indoor grille(s), outdoor louvers, various ventilation options, indoor free air discharge, ductwork, wall plenum or a sleeve. Its primary heating means are reverse cycle refrigeration, with secondary supplemental heating by means of electrical resistance, steam, hot water or gas. This equipment provides the functions of air heating with controlled temperature, air cooling, air circulating, air cleaning, dehumidifying or humidifying and ventilation.
Transport Refrigeration (AHRI Std. 1110)	Mobile Refrigeration Product Section	The certification program includes all Mechanical Transport Refrigeration Units which normally includes a compressor, drive, and condenser combination; an evaporator or air-cooler; all necessary refrigerant lines and electrical wiring; and means whereby the unit can be suitably mounted and installed on a vehicle, used in transportation of perishable goods
Unit Coolers (AHRI Std. 420)	Unit Coolers Subsection	This program applies to Production Models of Unit Coolers, as defined below, and meet the following criteria: • Use refrigerant R-404A or R-507A for Direct Expansion (DX) Coils, or R-717 for DX and/or liquid overfeed coils; • Aluminum fin material; • Single vertical coil; • Horizontal only air flow direction (the air flows to or from the inlet face of the coil from or to the fan inlet, with no change in direction); and • Axial fans only. Unit Coolers Definition: A factory made assembly including means for forced air circulation and elements by which heat is transferred from air to refrigerant without any element external to the cooler imposing air resistance. These may also be referred to as Air Coolers, Cooling Units, Air Units or Evaporators. Unit Coolers utilize a Volatile Refrigerant fed by either direct expansion or liquid overfeed with ratings based on wet and/or dry conditions.

AHRI Certification Program Scopes - COOLING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Unit Ventilators (AHRI Std. 840)	Unit Ventilators Subsection	The certification program includes Unit Ventilators with outside air ventilation and return air dampers capable of providing ventilation air of at least 80% of rated Standard Air Flow with the capability of providing any combination of these functions: humidity control, circulation, heating or cooling and filtering of air. Humidity control, heating or cooling, supplementary to the ventilation air, may be remote or an integral part of the unit. The equipment is designed for free delivery of air but may be applied with minimal duct work having a static resilience not greater than 0.50 in of water [125 Pa]. The unit ventilator can be either vertical floor standing or horizontally mounted in or adjacent to the space it serves and is generally provided with air capacities of 3000 cfm [1416 L/s] or less.
Unitary Air-Conditioner Equipment (includes mixed-match coils) (AHRI Std. 210/240)	Unitary Small Equipment Product Section	The certification program includes all Unitary Air Conditioning equipment rated below 65,000 Btu/h [19,000 W] at AHRI Standard Rating Conditions. A Unitary Air Conditioner is one or more factory made assemblies ordinarily including an evaporator or cooling coil(s), compressor(s), and condenser(s) and may include a heating function. When these components are integrated into one cabinet, they are single packaged units; when provided in separate assemblies and designed to be used together, they are split systems.
Unitary Heat Pump Equipment (includes mixed-match coils) (AHRI Std. 210/240)	Unitary Small Equipment Product Section	The certification program includes all Air-Source Unitary Heat Pump equipment rated below 65,000 Btu/h [19,000 W] at AHRI Standard Rating Conditions. An Air-Source Unitary Heat Pump ordinarily includes these same components and includes a means for heating and provides a cooling function. When these components are integrated into one cabinet, they are single packaged units; when provided in separate assemblies and designed to be used together, they are split systems.
Unitary Large Equipment (AHRI Std. 340/360)	Unitary Large Equipment Product Section	The certification program includes Commercial and Industrial Unitary Air-Conditioning Condensing Units rated at or above 65,000 Btu/h [19,000 W] but below 250,000 Btu/h [73,200 W] at the AHRI Standard Rating Conditions.
Variable Air Volume Terminals (AHRI Std. 880)	Air Control and Distribution Devices Product Section	The certification program applies to air control and distribution devices (including modulating diffusers) used in commercial air distribution systems which are ducted air devices and provide control of air volume and/or air temperature by one or more of the following means: a. Fixed or adjustable directional vanes. b. Pressure dependent volume dampers or shutoff valves (including air induction nozzles and dampers). c. Pressure compensated volume dampers or shutoff valves (including air induction nozzles and dampers). d. Heat exchange. e. On/off fan control. f. Variable speed fan control. These devices may or may not have a fan to deliver air into a space. This certification program does not apply to the rating and testing of retrofit units.

AHRI Certification Program Scopes - COOLING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Variable Frequency Drive (ANSI/AHRI Std. 1210)	Variable Frequency Drives Product Section	This certification program includes only base VFDs which may be incorporated into other configurations, (i.e. bypasses, filters, enclosures) with the following specifications: · Designed for use in the control of asynchronous induction motors in HVACR products only designated by the manufacturer; · Found within a building that are low voltage (≤ 600 Volts) and drives that are stand alone; and · Custom units – designated to have significantly different system efficiencies harmonic performance or motor stress
Variable Refrigerant Flow Multi-Zone Air-Conditioners and Heat Pumps (AHRI Std. 1230)	Ductless Equipment Product Section	This Certification Program applies to Production Models of 50 and 60 Hz VRF Multi-Split Systems and VRF Heat Recovery Multi-Split Systems that meet the following criteria: 1) Include multi-split, matched system air-conditioners and heat pumps irrespective of their type of electric power source, or secondary fluid (e.g. air-to-air or water-to-air); 2) Use distributed refrigerant technology with cooling and heating capacities for Outdoor Units and Water Source Units from 12,000 Btu/h [3508 W] to 760,000 Btu/h [222,734 W] and indoor units from 5,000 Btu/h [1,462 W] to 144,000 Btu/h [42,202 W]. Each indoor unit is designed to condition a single zone; 3) Consisting of the following matched components: a) an Outdoor Unit with single or multiple compressors or variable capacity compressor; b) indoor units that have a coil, air movement device intended for single zone air distribution, and a temperature sensing control; and c) a zone temperature control device; and 4) Single phase models below 65,000 Btu/h shall comply with the National Appliance Energy Conservation Act (NAECA) and the three (3) phase models, or commercial models, shall comply with the Energy Policy Act (EPACT).
Water Chilling Packages Using the Vapor Compression Cycle (Air-Cooled) (AHRI Std. 550/590)	Liquid Chillers Product Section	60 Hz Air-Cooled: - Rated up to 200 tons [703 kW] at AHRI Standard Rating Conditions - Hermetic or open type electric motor driven - 60 Hz up to 600 volts (domestic and export shipments) - All compressor types
Water Chilling Packages Using the Vapor Compression Cycle (Water-Cooled) (AHRI Std. 550/590)	Liquid Chillers Product Section	60 Hz Water-Cooled: - Rated up to 2,000 tons [7034 kW] at AHRI Standard Rating Conditions - Hermetic and open type, electric motor driven - 60 Hz less than or equal to 5,000 volts (domestic and export shipments) - All compressor types 50 Hz Water-Cooled: - Rated from 200-1000 tons [703-3527 kW] at AHRI Standard Rating Conditions - Hermetic and open type, electric motor driven - 50 Hz less than or equal to 5,000 volts (domestic and export shipments) - All compressor types

AHRI Certification Program Scopes - COOLING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Water-to-Air and Brine-to-Air Heat Pumps (ISO Std. 13256-1)	Water-Source Heat Pump Subsection	All production models of water-to-air and water-to-water heat pumps consisting of ground-water heat pump equipment, water-loop heat pump equipment, and ground-loop heat pump equipment, rated below 39,500 W (135,000 Btuh) at ISO Standard Rating Conditions (Cooling), manufactured for sale in North America and as covered by the Standard, shall be included in this Program. Each consists of one or more factory-made assemblies which include an indoor conditioning coil with air moving means, compressor(s), and refrigerant-to-water heat exchanger(s), including means to provide both cooling and heating, cooling only, or heating only functions. When such equipment is provided in more than one assembly, the separate assemblies shall be designed to be used together, and the requirements of rating outlined in the Standard are based upon the use of matched assemblies.

AHRI Certification Program Scopes - HEATING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Commercial Boilers	Boilers Subsection	Gas- and oil-fired steam and hot water Heating Boilers with inputs ranging from 300 MBH to 2500 MBH, for which published ratings are available. Custom Boilers are excluded from the program scope. Boiler models within a Model Series, or individual boiler models, having inputs over 2500 MBH may be included in the program at the Participant's option.
Commercial Finned-Tube	Finned-Tube Subsection	Steam or water heated room heaters composed of a finned tube element fabricated from metallic tubing with a plurality of metallic fins attached to the tubing by means of a mechanical or other type bond. These heaters are designed for installation bare, or with open type grilles, covers, or enclosures having top, front, or inclined outlets.
Commercial Furnaces	Furnaces Product Section	The program covers all self-contained gas- and oil-fired furnaces designed to provide heated air through ducts that have an input rate of 225,000 Btu/hr or greater. Combination furnace/ air conditioning units are included in the program. Other models of furnaces outside the parameters defined in 1.1.1 above but at least 225,000 Btu/hr may be included in the program at the participating manufacturer's option. Any such models included in the program must be rated in accordance with the test procedure specified in 1.2.1 and are subject to all the provisions in this procedural guide applicable to furnaces. Furthermore, the shipments of the model shall be included in the monthly report and payment specified in 2.1.2.3.
Commercial Water Heaters	Water Heaters Product Section	All commercial electric, gas, and oil water heaters which have input ratings of 500,000 Btu/h or less and which have energy input ratings and capacity within the parameters outlined below are included in the program. * Electric storage water heaters with energy input ratings greater than 12 kilowatts or with storage capacity greater than 120 gallons * Electric instantaneous water heaters with energy input ratings greater than 12 kilowatts * Gas storage water heaters with energy input ratings greater than 75,000 Btu/h or storage capacities greater than 100 gallons * Gas instantaneous water heaters with energy input of 200,000 Btu/h or greater, or designed to deliver water at a controlled temperature greater than 180ºF (82.2ºC) or with a storage capacity of 2 gallons or more * Oil storage water heaters with energy input greater than 105,000 Btu/h or storage capacities greater than 50 gallons Water heater models outside the parameters defined in 1.1.1 or 1.1.2 above may be included in the program at the participating manufacturer's option. Any such models included in the program must be rated in accordance with the test procedure specified in 1.2.1 and are subject to all the provisions in this procedural guide applicable to water heaters. Furthermore, the shipments of the model shall be included in the monthly report and payment specified in 2.1.2.3.
Indirect-Fired Water Heaters	Indirect Water Heaters Subsection	This procedure relates to the verification of performance of Indirect-Fired Water Heaters designed for installation with a hot water boiler or some other external source of heated water. This procedure is limited to Indirect-Fired Water Heaters having a total system volume of 120 gallons or less. This procedure does not apply to direct-fired instantaneous or storage water heaters, tankless water heaters or heat pumps water heaters. This procedure also does not apply to combination space heating and water heating appliances.

AHRI Certification Program Scopes - HEATING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Residential Baseboards	Baseboards Subsection	Steam or water heated room heaters designed for installation along the bottom walls of rooms, replacing the conventional decorative baseboard, that have a substantial portion of their frontal face surface directly exposed to the room and operate via recirculated room air.
Residential Boilers	Boilers Subsection	This program applies to gas and oil-fired steam and hot water heating boilers with inputs less than 300 MBh certified to comply with the applicable rating standard. Definition of a Heating Boiler. A heat exchanger, designed with and for fuel-burning devices and other equipment to (1) burn fossil fuels and (2) transfer the released heat to water (in water boilers) or to water and steam (in steam Heating Boilers) must conform to the safety and material requirements of the current ASME Boiler and Pressure Vessel Code, Section IV: Rules for Construction of Heating Boilers, or have an approved ASME code case.
Residential Furnaces	Furnaces Product Section	This program covers all gas- and oil-fired central furnaces that use single-phase electric current or DC and that have a heat input rate of less than 225,000 Btu/hr. Other models of furnaces outside the parameters defined in 1.1.1 above but at least 225,000 Btu/hr may be included in the program at the participating manufacturer's option. Any such models included in the program must be rated in accordance with the test procedure specified in 1.2.1 and are subject to all the provisions in this procedural guide applicable to furnaces. Furthermore, the shipments of the model shall be included in the monthly report and payment specified in 2.1.2.3.
Residential Water Heaters	Water Heaters Product Section	All electric, including heat pump, gas and oil water heaters having energy input ratings and capacities within the parameters outlined below are included in the program: * Electric storage water heaters with energy input ratings of 12 kilowatts or less at a voltage no greater than 250 volts, and with a storage capacity of not less than 20 gallons nor more than 120 gallons, and electric heat pump water heaters with maximum current ratings of 24 amperes at a voltage no greater than 250 volts, which includes a storage tank with a rated capacity of not less than 20 gallons nor more than 120 gallons, and auxiliary water heating electric heat pumps with maximum current ratings of 24 amperes at a voltage no greater than 250 volts, intended for connection to an existing water heater or storage tank installation. * Electric instantaneous water heaters with energy input ratings of 12 kilowatts or less with maximum voltage no greater than 250 volts. * Gas storage water heaters with energy input ratings of 75,000 Btu/h or less and with a storage capacity of not less than 20 gallons nor more than 100 gallons. * Gas instantaneous water heaters with energy input ratings greater than 50,000 Btu/h but less than 200,000 Btu/h, designed to deliver water at a controlled temperature of less than 180ºF (82.2ºC) and with a storage capacity of less than 2 gallons. * Oil storage water heaters with energy input ratings of 105,000 Btu/h or less and with a storage capacity of 50 gallons or less.

AHRI Certification Program Scopes - HEATING

CERTIFICATION PROGRAM (scroll down to view more programs; this list is arranged alphabetically)	SPONSORING SECTION/SUBSECTION	CERTIFICATION PROGRAM SCOPE
Vented Direct Heaters	Direct Heating Product Section	All gas and oil direct heating equipment whose energy input ratings are within the parameters outlined below are included in the program: "Vented home heating equipment" or "vented heater" means a class of home heating equipment, not including furnaces, designed to furnish warm air to the living space of a residence, directly from the device, without duct connections (except that booths not to exceed 10 inches beyond the casing may be permitted) and includes: vented wall furnaces, vented floor furnace, and vented room heater. Definitions: * "Vented floor furnaces" means a self-contained vented heater suspended from the floor of the space being heated, taking air for combustion from outside this space. The vented floor furnace supplies heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing. * "Vented room heater" means a self-contained, free standing, nonrecessed, vented heater for furnishing warmed air to the space in which it is installed. The vented room heater supplies heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing. * "Vented wall furnace" means a self-contained vented heater complete with grilles or the equivalent, designed for incorporation in, or permanent attachment to, a wall or a residence and furnishing heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing