

STANDARD INFORMATION

Standard Number: ANSI Z83.19 / CSA 2.35
Standard Name: Gas-Fired High-Intensity Infrared Heaters
Standard Edition and Issue Date: 3rd Edition Dated November 1, 2017
Date of Revision: November 1, 2017
Date of Previous Revision of Standard: January 1, 2014

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **November 4, 2018**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revise requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revise requirements.

Overview of Changes: Updates to markings. Specific details of new/revise requirements are found in table below.

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Client Action Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revise paragraphs noted in the attached or explain why these new/revise requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined out below.</i>
4	Info	Construction
4.24	Info	Instructions

Each heater shall be accompanied by printed instructions and diagrams adequate for proper field assembly, installation, and safe operation, including all controls and accessories.

The cover, or in the absence of a cover, the first page of the instruction manual shall bear the following statements. They shall be boxed as shown:

⚠ WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this heater.

These instructions shall indicate the following:

- 4.27.3
- a) the manufacturer's, distributor's, jobber's, or dealer's name, as it appears on the rating plate, and address and appliance model or series number;
 - b) Information on where the heater is and is not permitted to be installed and/or used, as applicable:
 - i) "For indoor installation only. Not for use in residential dwellings."

Note: A residential dwelling is a domicile intended for use by one or more persons and that includes one or more areas, such as those used for cooking, eating, living, sleeping, or a sanitary facility. A residential dwelling does not include an attached and detached garage, workshop, or outdoors."
 - ii) "For outdoor installation only."
 - iii) "For either indoor or outdoor installation. Not for use in residential dwellings."

Note: A residential dwelling is a domicile intended for use by one or more persons and that includes one or more areas, such as those used for cooking, eating, living, sleeping, or a sanitary facility. A residential dwelling does not include an attached and detached garage, workshop, or outdoors."
 - iv) "For outdoor portable use only."
 - c) adequate clearance around air openings into the combustion chamber, clearances from combustible material, provisions for accessibility and for combustion and ventilating air supply;



-
- d) adequate clearances in public garages and airplane hangars for overhead heaters (see Clause 1.4);
 - e) the stated clearance to combustibles represents a surface temperature of 90°F (32 °C) above room temperature. Building materials with a low heat tolerance (such as plastic, vinyl siding, canvas, tri-ply, etc.) may be subject to degradation at lower temperatures. It is the installer's responsibility to assure that adjacent materials are protected from degradation;
 - f) a warning statement that an overhead heater should be installed so that the minimum clearances marked on the heater will be maintained from vehicles parked below the heater;
 - g) the installation must conform with local building codes or, in the absence of local codes, with the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, or the *Natural Gas and Propane Installation Code*, CSA B149.1; for horizontally vented heaters, information on where the vent terminal, air-intake terminal, or vent-air terminal should and should not terminate, including: distances from adjacent public walkways, adjacent buildings, openable windows and building openings, consistent with the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, and in Canada, the *National Gas Propane Installation Code*, CSA B149.1;
 - i) information on preventing blockage by snow; and
 - ii) information on protecting building materials from degradation by flue gases.
 - h) directions to provide a 1/8 in (mm) NPT plugged tapping, accessible for test gauge connection, immediately upstream of the gas supply connection to the heater;
 - i) if an external electrical source is utilized, the heater, when installed, must be electrically grounded in accordance with the *National Electrical Code*, NFPA 70, or the *Canadian Electrical Code*, CSA C22.1;
 - j) the maximum and minimum inlet gas supply pressure to the heater;
 - k) l) if applicable, a statement that the appliance is equipped with a safety control system designed to shut the burner off in the event of inadequate gas pressures. This statement shall also include the information specified in Clause 4.25.3;
 - l) the manifold pressure in inches water column;
 - m) if a transformer is not supplied with the heater, transformer specifications that are compatible with the electrical ratings marked on the appliance shall be provided; and
 - n) a statement that the user shall not attempt to ignite the pilot by hand on heaters equipped with automatic pilot igniters. (See Clause 4.15.3.)
 - o) For addressing derating at altitudes above 2,000 ft (610 m), the instructions shall indicate one of the following:
 - i) Installation of this appliance at altitudes above 2,000 ft (610 m) shall be in accordance with local codes, or in the absence of local codes, the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54 or *National Standard of Canada*, *Natural Gas and Propane Installation Code*, CSA B149.1.
 - ii) For appliances requiring modifications other than only gas orifice
-



and/or manifold pressure adjustment for installation at high altitude, “Installation of this appliance at altitudes above 2,000 ft (610 m) shall be made in accordance with the Listed High Altitude Conversion Kit available with this appliance.” See Annex D.

- iii) For appliances requiring only gas orifice and/or manifold pressure adjustment for installation at high altitude, the appliance installation instructions shall provide adequate details on proper adjustments for various altitudes. See Annex D.

4.25 Info **Marking**

RATING PLATE. Each heater shall bear a rating plate of Class IIIA marking material, located where it can be easily read when the heater is in a normally installed position, on which shall appear the following:

- a) the manufacturer’s or distributor’s name;
- b) the manufacturer’s or distributor’s number of the heater;
- c) the manufacturer’s normal hourly Btu input rating;
- d) the manufacturer’s normal manifold pressure in inches water column;
- e) minimum permissible gas supply pressure for purpose of input adjustment;
- f) the manufacturer’s minimum hourly Btu input rating for a heater for automatic operation at ratings less than full input rating;
- g) the type of gas for which equipped: Nat., Mfd., Mix., Propane ___ Btu/ft³ LP gas-air mixture(s). (For LP gas-air mixtures, the heating value shall be indicated.) This information may appear as a separate Class IIIA marking adjacent to the rating plate;
- h) a heater convertible for use with natural gas and propane gas shall be marked as follows and the marking specified under “-g” omitted:
“For Natural Gas when equipped with No. ___ drill size orifice.”
“For Propane Gas when equipped with No. ___ drill size orifice.”

4.25.2

(Each orifice shall be clearly identified with regard to the gas for which it will be used, and the orifice size shall be indicated on the spud or hood. Also see Clause 4.9.5.)

- i) as applicable, the words, “High-Intensity Infrared Heater” displayed in a readily observed location;
- j) identification of this Standard by indicating the edition of the standard with the following marking:
“ANS Z83.19 • CSA 2.35(year) High-Intensity Infrared Htr.”;
“ANS Z83.19a • CSA 2.35a(year) High-Intensity Infrared Htr.,” or
“ANS Z83.19b • CSA 2.35b(year) High-Intensity Infrared Htr.”
- k) angle-mounted heaters shall have the maximum angle of mounting specified; and
- l) the symbol of the organization making the tests for compliance with this Standard.
- m) For appliances with factory installed orifices for altitudes over 2,000 feet the appliance shall bear a plate that specifies the elevation that it is equipped for. If the appliance is installed at an elevation other than that specified on the plate the installer shall contact the manufacturer for the



proper high altitude conversion kit.

- n) Total hourly Btu input rating. An appliance having individually controlled main burners shall also be marked to show each individually controlled burner input. For an appliance listed for operation at altitudes over 2,000 ft (610 m), the marking shall include the derated input(s) for high altitude(s) (e.g., At elevations above 2,000 ft (610 m), derate the input 4 percent per 1,000 ft (305 m) above sea level.).

An appliance for outdoor installation: "For installation above 2,000 ft, see high-altitude rating plate."

- o) Minimum hourly Btu input rating for an appliance for automatic operation at ratings less than full input rating. For an appliance listed for operation at altitudes over 2,000 ft (610 m), the marking shall include the derated minimum input rating(s) for high altitude(s) (e.g., At elevations above 2,000 ft (610 m), derate the minimum input 4 percent per 1,000 ft (305 m) above sea level.). An appliance for outdoor installation: "For installation above 2,000 ft, see high-altitude rating plate inside appliance."
-

CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.
