34.17 A pressure vessel having an inside diameter greater than 152 mm (6 inches) mentioned in Clauses 34.6 and 34.12 shall have pressure relief in accordance with ANSI/ASHRAE 15 and CSA B52.

34.18 Constructions that may be acceptable for relieving pressure in case of fire include those indicated in Clause 34.13, as well as gasketed joints and elastomeric insulators for terminals of hermetic compressors.

34.19 A stop valve or shutoff valve shall not be located between any pressure relief device or fusible plug, etc, and the part or parts of the system protected thereby.

34.20 All pressure relief means on pressure vessels shall be connected adjacent to or directly to the pressure vessel or parts of the system protected. Pressure relief devices shall be connected above the liquid refrigerant level and installed to make them accessible for inspection and repair and to protect them from conditions that could cause them to malfunction.

Exception: Fusible plugs may be located either above or below the liquid refrigerant level.

34.21 Rupture members shall burst at a pressure within 5% of the nominal pressure marked on the device, at the temperature with which it is marked, when tested in accordance with Clause 72, Rupture member test.

34.22 Fusible plugs shall operate at a temperature within 5.6°C (10°F) of the marked temperature rating, when tested in accordance with Clause 73.

34.23 A pressure vessel that has an inside diameter greater than 76 mm (3 in) and that cannot contain liquid refrigerant shall be protected by a pressure relief device or fusible plug having sufficient discharge capacity to relieve the pressure developed in the vessel, under fire conditions, and prevented from exceeding a value corresponding to one-third the ultimate strength of the vessel.

34.24 A positive displacement compressor operating at pressures exceeding 103 kPa (15 psig) and having a displacement exceeding 0.02 m^3/s (50 cfm) shall be equipped with a pressure relief device having the capacity and the pressure setting necessary to prevent rupture of the compressor. The pressure relief device shall be located between the compressor and stop valve on the discharge side. Discharge from the device may be vented to the atmosphere or into the low pressure side of the system.

34.25 Pressure relief devices may discharge into the low pressure side of the system, provided that they are not appreciably affected by back pressures, and provided that the low pressure side of the system is equipped with its own pressure relief device. The low side pressure relief devices shall have capacity to protect either the pressure vessels that are relieved into the low pressure side of the system, or all pressure vessels on the low side of the system, whichever relieving capacity is the largest.

34.26 On liquid chillers employing centrifugal motor compressors, the pressure relief device for the high-side pressure vessels may be in the low-side of the system, provided

a) it can be established that the clearances between the capacity control vanes and their housings and other fixed openings between the high-side and low-side are sufficient to provide the relief capacity required for high-side pressure vessels; and

b) the low-side pressure relief device has a relief capacity at least equal to the sum of the capacities required for all pressure vessels on high-side and low-side.

34.27 Calculation of the discharge capacity of a rupture member or fusible plug shall be in accordance with CSA B52 and ANSI/ASHRAE 15.

34.28 A pressure relief valve shall be sealed at a start-to-discharge pressure not exceeding the marked working pressure of the pressure vessel it protects.

Exception: A pressure relief valve for a pressure vessel that does not have a marked working pressure shall be sealed at a start-to-discharge pressure that corresponds to no more than one-fifth of the ultimate strength of the pressure vessel.

34.29 A pressure-relief valve used on equipment intended to utilize carbon dioxide (R744) in a secondary loop or a cascade system and provided with a pressure vessel shall be sealed at a value not less than 3448 kPa (500 psig).

Exception: If the equipment on which the pressure vessel is located does not use a hot gas defrost system, then the pressure-relief valve on the low side may be sealed at not less than 2069 kPa (300 psig).

34.30 A pressure relief valve used on equipment intended to utilize carbon dioxide (R744) in a transcritical system shall be sealed at a value not less than 8273 kPa (1200 psig) on the high side of the system, and a value not less than 3448 kPa (500 psig) on the intermediate pressure side of the system.

34.31 Where the pressure relief means is provided by a rupture member, the nominal rated rupture pressure of the member shall not exceed the marked design pressure of the vessel protected, or one-fifth of the ultimate strength of pressure vessels that do not have a marked design pressure.

34.32 Equipment intended to utilize carbon dioxide (R744) in a secondary loop, cascade, or transcritial system and that may contain a pressure vessel within the R744 loop or system shall be furnished with the following items which are installed as part of the equipment:

a) a pressure-relief valve set to open as indicated in Clause 34.29, and

b) a pressure-regulating relief valve set to operate at no higher than 90 percent of the marked setting of the pressure relief valve.

34.33 Equipment that may contain a pressure vessel within the R744 loop or system is not required to be provided with the pressure-relief or the pressure-regulating relief valve as part of the equipment if the instructions provide the information indicated in item (c) of Clause 4.4 and the equipment is marked according to item (b) of Clause 45.13.

34.34 Equipment intended to utilize carbon dioxide (R744) in a transcritical system is not required to be provided with a pressure regulating relief valve.

34.35 The pressure-regulating relief valve covered by item (b) of Clause 34.32 shall:

a) Be factory set and sealed to prevent changing the relief setting,

b) Be mounted to minimize the likelihood of removal and plugging the opening (e.g., use of a threaded fitting other than the NPT type),

c) Comply with the Regulating Relief Valve Endurance Test, Clause 74, and

d) Have a discharge capacity not less than 20 percent of the marked discharge capacity of a required pressure-relief valve.

34.36 Pressure-regulating relief valves shall comply with the requirements of the ASME Boiler and Pressure Vessel Code, Section VIII. Valves of 1/2 inch iron pipe size and larger shall bear the authorized code "UV" symbol together with the set pressure and capacity. Valves of less than 1/2 inch iron pipe size shall be similarly marked, except that where the size does not permit a nameplate, the code symbol may be omitted and the set pressure and capacity may be stamped on the valve or on a metal plate attached to it. Manufacturers of valves that do not bear the code symbol shall provide evidence of certification of the valve and its pressure and capacity rating by appropriate code authorities.

Refrigerant Pressure-Limiting Device

34.37 A pressure-limiting device shall be installed on

a) All units that are designed for use in systems containing 10 kg (22 lbs) or more of refrigerant or that employ a receiver or condenser-receiver with a capacity to accept 10 kg (22 lbs) of refrigerant without the liquid occupying more than 90 per cent of the volume when the refrigerant temperature is 32.2°C (90°F);

b) All condensing units that are not subjected to operational tests (where the refrigerant circuit is operated to obtain pressure – See Table 46.1) with a compressor motor rated at more than 1 horsepower (746 W output).

Exception: A pressure-limiting device need not be provided if the condensing unit

1) Is intended for air-conditioning use; and

2) Contains a hermetic refrigerant motor-compressor having a steel shell that is provided with an internal bleeder valve that relieves discharge pressure into the low-pressure side of the refrigerant system.

34.38 A pressure-limiting device shall be installed on all compressor units and compressor-evaporator units.

34.39 The adjustable cutout pressure setting of a pressure-limiting device shall not exceed

a) One-third of the ultimate strength of high side refrigerant containing parts provided this setting does not exceed 90 percent of the setting of the pressure relief device; or

b) 110 percent of the design pressure marking on the unit name plate for units that are (1) not subjected to operational tests (where the refrigerant circuit is operated to obtain pressure – See Table 46.1) or (2) water cooled.

Exception: On liquid chillers employing centrifugal motor compressors, if the pressure relief device is set in the low side of the system the maximum cutout pressure to which a pressure-limiting device may be readily adjusted by the adjusting means provided may be more than 90 percent but not more than 100 percent of the following, whichever is lowest:

a) Except for ASME Code U-symbol pressure vessels, see Item (b), one-third of the pressure corresponding to the ultimate strength of high-side refrigerant-containing parts; and

b) The marked design pressure of high-side pressure vessels.

34.40 There shall be no stop valves between the pressure-limiting device and the compressor.

34.41 A contactor provided to comply with Clause 34.32 or Clause 34.33, shall be rated for 100,000 endurance cycles.

35 Condensing and compressor units employing flammable refrigerants.

35.1 Condensing units and compressor units intended to be used in a refrigeration system and employing a flammable refrigerant shall comply with Supplement SA of the Standard for Household Refrigerators and Freezers, UL 250, or Supplement SB of the Standard for Commercial Refrigerators and Freezers, UL 471, depending on the application of the product.

36 Heat pump water heating and heat recovery equipment

General

36.1 The following additional requirements apply specifically to heat pump water heating and heat recovery equipment. Such equipment shall also comply with all of the applicable requirements of this Standard.

Heat Exchanger

36.2 Heat exchangers intended for connection to a potable water system shall be of double wall construction and marked in accordance with Clause 45.12(a). Such design shall incorporate either a vented interface or redundant construction to prevent the leakage of refrigerant into potable water.

36.3 Heat exchangers may be of single wall construction provided they are not intended for connection to a potable water system, and shall be marked in accordance with Clause 45.12(b).

36.4 In accordance with Clause 36.2, a vented interface shall be maintained at near atmospheric pressure, with the venting path continuous over the entire length of the heat exchanger. The continuity of the venting path is determined by use of water at a pressure not higher than 62 kPa (10 psig).

36.5 In accordance with Clause 36.2, heat exchangers shall have sufficient strength to withstand a pressure of not less than three times the maximum rated refrigerant design pressure for the refrigerant side, with the water side maintained at atmospheric pressure.

36.6 Heat exchangers shall have sufficient strength to withstand not less than 1-1/2 times the maximum rated design pressure for the refrigerant side, in accordance with a vented interface (Clause 36.2). See Clause 79.15.

36.7 Heat exchangers employing a redundant double wall construction per Clause 36.2 shall have sufficient strength for each separate wall to withstand a pressure of not less than three times the maximum rated refrigerant design pressure with the outer side maintained at atmospheric pressure.

36.8 The water side of a heat exchanger shall have sufficient strength to withstand a pressure of not less than 2.1 MPa (300 psig). See Clause 79.15.

Storage Tank

36.9 Storage tanks shall meet the requirements of CSA C22.2 No. 110 and UL 174.

Water Temperature Control

36.10 A heat pump water heater, desuperheater or heat recovery unit shall be equipped with a water-temperature-regulating control, so that the water in the tank, if supplied by the manufacturer as part of the water heating system, or at the outlet, will not attain a temperature of more than 85°C (185°F).

36.11 In addition to the temperature-regulating control required by Clause 36.10, a water-temperature-limiting control shall be provided to interrupt the electrical supply to the water heating system to prevent the temperature in the tank or at the outlet from exceeding 99°C (210°F), when the equipment is tested under the applicable conditions of Clause 79. This control shall not function under normal conditions as specified in Clauses 79.5 and 79.6.

36.12 Controls limiting water temperature for the heat pump water heater or heat recovery unit shall be temperature- or pressure-actuated and located electrically as specified in Clauses 36.15 and 36.16.

Exception: If the unit complies with the water temperature test as noted in Clause 79.8 when all operating, regulating and limiting controls are bypassed, and the compressor motor is provided with a direct line break overload protector, the construction need not comply with the above.

36.13 Controls shall comply with the applicable requirements for their intended function(s), shall have an endurance rating of not less than 30,000 cycles, and shall comply with CSA C22.2 No. 24 and UL 873 or with UL 60730-1 and UL 60730-2-9 or with CSA E60730-1 and CSA E60730-2-9.

36.14 Controls shall be integral with the equipment, and shall not be designed to be installed in an existing water storage tank that is not supplied as part of the packaged heat pump water heater or desuperheater, or heat recovery unit.

36.15 The temperature-limiting control shall have no operating part in common with the temperature-regulating control mentioned in Clause 36.10.

36.16 If the temperature-limiting control is in the control circuit of a magnetic contactor or relay, such a contactor or relay shall be so wired that it is not actuated by a temperature-regulating control.

36.17 Heat recovery units shall be marked to identify the locations of the water and refrigerant inlet and outlet connections.

36.18 The name and rating plate of a unit that is intended for use with a field-installed auxiliary equipment referred to in Clause 16.11 shall include provisions for marking the current of the field-installed auxiliary equipment.

37 Power supplies

37.1 Power supplies, charge controllers, inverters, converters or other components intended to have a direct PV input or be part of the PV system shall additionally comply with the applicable portions of the Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources, UL 1741 and CSA C22.2 No. 107.1.

38 Components and subsystems of solar photovoltaic systems

38.1 Electrical components of PV systems shall comply with the relevant requirements for such components described in this standard. In addition, PV components and subsystems shall comply with the requirements below.

38.2 PV modules and cells on heating and cooling equipment or on a frame or other support they have in common shall comply with the Standard for Flat-Plate Photovoltaic Modules and Panels, UL 1703 and CSA C22.2 No. 61730-1 and CSA C22.2 No. 61730-2 or ULC ORD C1703.

38.3 For units that are provided with crystalline and multicrystalline silicon PV module(s) or cells, the dc voltage correction factor of 1.20 shall be applied to determine maximum PV system voltage.

38.4 Specific open-circuit voltage temperature coefficients for the supplied PV modules or cells may be substituted in place of the 1.20 factor.

38.5 For units with a PV input circuit intended for connection to PV module(s) that are not provided with the unit, the input circuitry and components shall be rated for the maximum input voltage rating of the unit.

38.6 A switch, circuit breaker, or other device shall not be installed in a grounded conductor of a PV system if operation of that device leaves the marked, grounded conductor in an ungrounded and energized state.

38.7 A switch, circuit breaker, or other device, that is part of a ground-fault detection system may be installed in the grounded conductor.

39 Photovoltaic system grounding

39.1 Modules that individually or collectively supply a PV system voltage over 50 volts shall have one conductor solidly grounded at any single point on the PV source output circuit.

39.2 PV systems need not have a grounded conductor if the inverter or charge controller is rated for use with an ungrounded PV array in accordance with UL 1741 and CSA C22.2 No. 107.1.

40 Photovoltaic system ground fault protection

40.1 Inverters, converters or charge controllers with direct photovoltaic dc inputs from an integral module(s) shall be provided with ground-fault protection in accordance with the Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources, UL 1741 and CSA C22.2 No. 107.1.

40.2 A utility-interactive inverter supplied by a grounded module(s) shall be marked in accordance with Clause 45.20.

40.3 Batteries charged by the PV system supplied by a grounded module(s) shall be marked in accordance with Clause 45.20.

41 Photovoltaic system overcurrent protection

41.1 The PV system shall be provided with overcurrent protection, sized per the PV module over current protection rating, suitable for branch circuit protection, for conductors, inverters, charge controllers, converters and the connected heating and cooling equipment.

41.2 Overcurrent protection is not required for circuit conductors of module(s) integral to the heating and cooling equipment where there are no external sources such as parallel-connected source circuits, batteries, or backfeed from inverters.

41.3 The overcurrent protective device size shall not exceed following:

a) The ampacity of PV source conductors;

b) The PV module over current protection rating; and

c) The maximum overcurrent protective device ratings specified for any charge controllers, converters, inverter harness/cabling systems or inverter.

41.4 The circuit supplying power from the modules or cells shall be considered a branch circuit with respect to control circuits requirements of Clause 32.

41.5 Energy storage device output circuits shall be provided with overcurrent protection rated for the output conductors and load equipment to which it provides energy, including but not limited to inverters, charge controllers, converters and the connected heating and cooling equipment.

42 Photovoltaic system disconnection means

42.1 A means shall be provided to disconnect all current-carrying conductors of a PV system and any additional source (e.g., batteries) from all other conductors within the heating and cooling equipment. The disconnecting means shall be readily accessible and provided with the marking in Clause 45.17. If two or more disconnecting means are provided (e.g. for the PV system and the branch circuit), they shall be grouped and marked.

42.2 Equipment intended to receive input power from a utility interactive inverter shall be provided with a:

a) Dedicated and marked field wiring termination means of connection through distribution equipment such as a switchboard or panelboard. This means shall include the branch circuit overcurrent protective device as required by Clause 42.1,

b) Means to disconnect and isolate the inverter from all other circuitry within the equipment and,

c) Secondary, independent means of controlling the battery charging process when the utility is not present or when the primary charger controller fails or is disabled.

42.3 Equipment that includes an internal utility interactive inverter or performs utility interactive inverter functions to export power by back-feeding the branch circuit input power shall be provided with a means to disconnect and isolate the utility interactive inverter circuit from the heating and cooling equipment circuitry. Connection to the heating and cooling equipment load through dedicated and marked distribution equipment such as a switchboard or panelboard and that include branch circuit over current protection as required by ratings of the inverter fulfills this requirement.

42.4 When a panelboard is provided as part of the equipment it may be installed in place of the required disconnect if the panelboard includes separate branch circuit overcurrent protection for the utility interactive inverter and for the equipment.

42.5 The separate panel board need not be supplied with the equipment if the installation instructions specify that it is to be provided in the end installation, provides details that fulfill the requirements for disconnection and the heating and cooling equipment and /or a common frame or support accommodates the panelboard.

42.6 A panelboard shall:

a) Comply with the Standard for Panelboards, UL 67 and CSA C22.2 No. 29 or, if factory-built integral to or as a listed accessory for the HVAC system, shall meet the construction requirements for enclosures, spacings and field wiring provisions of this standard;

b) Not be rated less than the sum of the ampere rating of all overcurrent devices supplying it;

c) Have the load connection positioned at the opposite end from the supply circuit conductor entry location;

d) Have its bus or conductor rating sized for the load connected or shall be marked in accordance with Clause 45.22; and

e) Be installed on the heating and cooling equipment, on a common frame or support for the panelboard and heating and cooling equipment, or integral with or within the heating or cooling equipment.

UNIT MARKINGS

43 General

43.1 All markings required for compliance with this Standard may need to be in other languages to conform with local language requirements where the product is to be sold.

Note: **In Canada there are two official languages, English and French. Annex A lists some examples of French translations.**

44 Equipment markings

44.1 The markings in Clause 44 may consist of one or more labels, located in a place where readily visible after installation, without the use of tools. The markings shall not be affixed to any panel that can be removed without the use of tools except that,

a) A marking may be located on a panel that would be removed for installation or service, providing that the panel must be in place for the intended operation of the equipment;

b) If the nameplate is located on a removable cover, a second nameplate with the electrical rating, model designation, and a note to see marking on the cover shall be secured on the inside of the unit;

c) Tthe markings on a unit intended for built-in installation may be located behind a louvred panel or grille that requires tools for removal to gain access to the field wiring compartment.

44.2 The material for the labels shall be of metal or of a type suitable for outdoor or indoor use, as applicable.

44.3 The equipment shall be plainly marked, in a permanent manner, with the following:

a) The manufacturer's or private labeler's name, trademark, tradename, or other identifying symbol;

b) The catalogue number, style, model, or other type designation;

c) Voltage;

d) Number of phases, unless for single-phase operation;

e) Frequency in hertz;

f) The horsepower (see Clause 44.17) and full load amperes of each motor, except for hermetically sealed compressor motors, which shall be rated in locked rotor and rated load amperes (see Clause 44.10), and motors smaller than 1/8 horsepower, which may be rated in watts or amperes;

Exception No. 1: Motors controlled by an adjustable speed drive shall be marked with either the motor's MOC or the rated input current to the power conversion equipment. When there is bypass utilized, it shall be the larger of the motor's MOC, the rated input current to the power conversion equipment or the full load amperes of the motor.

Exception No. 2: Motor-compressors controlled by an adjustable speed drive shall be marked with either the compressors MRC or the rated input current to the power conversion equipment. If an MRC rating is not available for a compressor, the tests of Annex AA of UL 60335-2-34 or CAN/CSA C22.2 No. 60335-2-34 shall be conducted on the compressor or complete unit.

g) Heater input amperes or watts at marked voltage. See also Clause 44.3(t) for separable heater element assemblies;

h) Minimum power supply circuit ampacity for each hazardous voltage circuit which powers more than one motor or a motor and other loads rated 1.0 A. or more as shown in Figure 44.1 (see Clause 44.14);

i) For each hazardous voltage circuit which powers more than one motor or a motor and other loads rated 1.0 A. or more as shown in Figure 44.2 (see Clause 44.15) "MAX. FUSE_____", or "MAX. CKT. BKR._____ ", or "Maximum overcurrent protective device."

j) The type of refrigerant for operation, and the weight of factory refrigerant charge (self-contained units only), if the equipment is intended to employ refrigerant. The kind and quantity of refrigerant employed in the system shall be a type that is classified in ANSI/ASHRAE 34;

Exception: Unit coolers that do not contain a compressor (such as fan coil units or forced air cooled condensers) need not be marked with the kind of refrigerant if a tag is provided indicating that the design pressure(s) marked on the unit shall not be less than the design pressures marked on the compressor or condensing unit or as outlined in Clause 6.8 of CSA B52 and Clause 8.2 of

ANSI/ASHRAE 15 for the refrigerant used in the system. The marking shall also indicate that after charging, the equipment shall be marked with the refrigerant and the oil used. Compatibility with an alternate refrigerant may need to be determined if the unit contains any gaskets.

k) The design pressures for the high and low pressure sides, if intended to employ refrigerant. Intermediate design pressure shall be marked on transcritical systems employing an intermediate pressure section;

l) The date or other dating period of manufacture not exceeding any consecutive three months. For example, date coding, serial numbers, or equivalent means may be used;

m) The maximum outlet air temperature for units with electric resistance heaters;

n) The range of external static pressures, or maximum external static pressure at which the unit was tested (add-on heat pumps and units with electric resistance heaters only);

o) The minimum spacing to combustible surfaces for units with electric resistance heaters;

p) The minimum refrigerant design pressure and the type of the remote condenser (air-, water-, or evaporatively-cooled), if the unit is intended to be used with a remote condenser;

q) The marking "OUTDOOR USE" or equivalent, if the equipment is intended to be used and meets the applicable requirements for outdoor use;

r) "WARNING: RISK OF ELECTRIC SHOCK. CAN CAUSE INJURY OR DEATH: DISCONNECT All REMOTE ELECTRIC POWER SUPPLIES BEFORE SERVICING", in letters not less than 3.2 mm (1/8 in) high, or the equivalent. For equipment with multiple hazardous voltage power supplies, this marking shall be located on all panels providing access to hazardous voltage uninsulated live parts;

s) "CAUTION: MOUNT WITH THE LOWEST MOVING PARTS AT LEAST 2.4 m (8 ft) ABOVE FLOOR OR GRADE LEVEL", or the equivalent, if required under Clause 11.2;

t) The name and rating plate of a unit with a field-installed element assembly referred to in Clause 15.4 shall include the following or the equivalent:

1) List all of the manufacturer's name(s) and model designations of all of the heater elements that can be installed in the unit;

2) Have provision for:

i) Checking off the model designation of the heater that is installed; and

ii) Indicating the electrical ratings (volts, phase (if three phase only), and amperes or watts) of the unit with the heater installed; and

3) Iif the actual heater element rating is not included on the equipment nameplate and if the heater element nameplate is not accessible for viewing after installation of the elements, the following additional marking shall appear, and should be applied on the exterior of that section of the unit that houses the field-installed heater elements: "FOR ACTUAL HEATER ELEMENT RATING SEE ELEMENT MARKING INSIDE", or the equivalent;

u) A distinctive marking to identify the place of manufacture, if produced at more than one factory;

v) Units with hot water coils shall be marked with the maximum inlet water temperature;

w) Units with hot water or steam coils shall be marked with the maximum pressure at which a water coil employing heated water at a temperature exceeding 93°C (200°F) or a steam coil is intended to be used;

x) Where required by Clause 76.1, the following marking or equivalent, "CAUTION: USE TIME DELAY FUSES"; and

y) The short-circuit current rating of the motor controllers, equipment control panel, overall equipment panel, or industrial control panel when employed with multimotor and combination-load equipment.

Exception: Equipment intended for use in one- and two-family dwellings, cord-and-attachment-plug connected equipment, or equipment supplied from a branch circuit protected at 60 A or less is not required to be marked with a short-circuit current rating.

z) As required by Clause 19.35, "CAUTION - RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH MANUFACTURER'S CORD SET, PART NO. XXX", or the equivalent.

z1) The name and rating plate of a unit with a factory specified field-installed Ultraviolet (UV) lamp assemblies shall include the following or the equivalent:

1) List all of the manufacturer's name(s) and model designations of all of the ultraviolet (UV) radiation lamp systems that can be installed in the unit;

2) Have provision for checking off the model designation of the Ultraviolet (UV) lamp assembly that is installed;

3) Have provision for indicating the electrical ratings (volts, and amperes or watts) of the unit with the ultraviolet UV lamp assembly installed; and

4) If the actual ultraviolet (UV) lamp assembly rating is not included on the equipment nameplate and if the UV lamp assembly nameplate is not accessible for viewing after installation of the unit, the following additional marking shall appear, and should be applied on the exterior of that section of the unit that houses the ultraviolet (UV) lamp assembly: "FOR ACTUAL ULTRAVIOLET (UV) Lamp ASSEMBLY RATING SEE LAMP MARKING INSIDE", or the equivalent;

z2) The ratings of the ultraviolet (UV) radiation lamp system lamps, maximum lamp rating in watts and voltage.

Exception: For individual loads rated at less than 1 A, the electrical ratings need not be marked on the unit.