

chapter N-1.01, r. 1

Regulation respecting the energy efficiency of electrical or hydrocarbon-fuelled appliances

Act respecting energy efficiency and energy conservation standards for certain electrical or hydrocarbon-fuelled appliances

(chapter N-1.01, ss. 21, 22, 23 and 26).

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1. An appliance listed in Schedule 1, whose manufacturing ends during the period determined in that Schedule, must comply with the energy performance requirement provided for each appliance in Schedule 1.

The compliance of an appliance is tested and verified according to the applicable test procedure specified in Schedule 1 and according to any specification in Schedule 1.

Where a standard listed in Schedule 1 states that it is based on or harmonized with another standard, the test procedure of the latter standard may be used to test and verify the compliance of the appliance.

O.C. 434-2017, s. 1; O.C. 1394-2018, s. 1.

1.1. An appliance listed in Schedule 2, as defined in the Energy Efficiency Regulations, 2016 (SOR/2016-311), must comply with the energy efficiency standards applicable to the appliance in accordance with the Regulation, based on the period during which its manufacturing is completed.

An appliance is covered only to the extent that, within the meaning of the Regulation, it is considered as an energy-using product and is not otherwise excluded by an applicable restriction.

Compliance of an appliance is tested and verified using the applicable testing methods or standards specified in the Regulation.

O.C. 1394-2018, s. 2.

2. A reference to another text includes subsequent amendments made thereto.

O.C. 434-2017, s. 2; O.C. 1394-2018, s. 3.

3. An appliance listed in Schedule 1 or 2 must be labelled with an energy efficiency verification mark issued by a body accredited by the Standards Council of Canada to operate a certification program in respect of energy efficiency. The verification mark certifies that the appliance has been tested and that, as the case may, its energy performance or compliance with the applicable energy efficiency standards have been verified.

For the purposes of the first paragraph, an external power supply may be marked with roman numerals authorized by an accredited body.

O.C. 434-2017, s. 3; O.C. 1394-2018, s. 3.

4. An appliance listed in Schedule 1 or 2 must be provided with at least one permanent label bearing the identification of its manufacturer, its model number and its date of manufacturing or bearing a code identifying that date, such as the appliance's serial number.

An appliance referred to in section 24 of the Act respecting energy efficiency and energy conservation standards for certain electrical or hydrocarbon-fuelled appliances (chapter N-1.01) must be provided with a permanent label obtained from the Minister certifying that it is demonstrated that the energy consumption equal to or lower than that permitted by regulation results from the various authorized standards.

O.C. 434-2017, s. 4; O.C. 1394-2018, s. 3.

5. A label or a mark provided for in sections 3 and 4 must be affixed so that it is easily located and read without having to disassemble a part of the appliance.

The label or mark may be affixed on the exterior of the appliance package.

O.C. 434-2017, s. 5; O.C. 1394-2018, s. 4.

6. The special stamp that an inspector may affix in the cases referred to in section 32 of the Act respecting energy efficiency and energy conservation standards for certain electrical or hydrocarbon-fuelled appliances (chapter N-1.01) is a red-coloured self-adhesive stamp containing a text indicating that the appliance cannot be marketed in Québec and the amount of the fines applicable if the stamp is removed. The stamp must be affixed on the exterior of an appliance package.

O.C. 434-2017, s. 6.

7. A manufacturer of appliances listed in Schedule 1 or 2 keeps up to date a register containing at least the name of the certification body referred to in section 3.

The register must also contain

(1) in the case of an appliance listed in Schedule 1, the number of the appliance energy performance verification file and all information allowing to show the compliance of the appliance with the applicable energy performance requirement according to the testing procedure provided for in Schedule 1;

(2) in the case of an appliance listed in Schedule 2, the number of the appliance compliance verification file with the applicable energy efficiency standards and all information allowing to show the compliance of the appliance with the energy efficiency standards according to the applicable testing methods.

O.C. 434-2017, s. 7; O.C. 1394-2018, s. 5.

8. Attestations of the verification of the energy performance of appliances issued by the Canadian Standards Association, Warnock Hersey Professional Services Ltd., Underwriters Laboratories Inc. and the Canadian Gas Association before 15 August 2017 in accordance with the Regulation respecting the energy efficiency of electrical or hydrocarbon-fuelled appliances (chapter E-1.2, r. 1), retain their full validity under this Regulation.

O.C. 434-2017, s. 8.

9. This Regulation replaces the Regulation respecting the energy efficiency of electrical or hydrocarbon-fuelled appliances (chapter E-1.2, r. 1).

O.C. 434-2017, s. 9.

10. *(Omitted).*

O.C. 434-2017, s. 10.

SCHEDULE 1

(ss. 1, 3, 4 and 7)

ENERGY PERFORMANCE REQUIREMENTS AND TESTING PROCEDURE APPLICABLE TO CERTAIN APPLIANCES

O.C. 434-2017, Sch. 1; O.C. 875-2017, s. 1; O.C. 1394-2018, s. 6.

The following abbreviations are used in this Schedule:

- “AFUE”: Annual fuel utilization efficiency;
- “AHRI”: Air-Conditioning, Heating, and Refrigeration Institute;
- “ANSI”: American National Standards Institute;
- “CRI”: Color rendering index;
- “CSA”: Canadian Standards Association;
- “EF”: Efficiency factor;
- “En”: Average lamp efficacy in lm/W;
- “IES”: Illuminating Engineering Society;
- “SL”: Standby loss in watts;
- “TE”: Thermal efficiency;
- “Vn”: Tank nominal volume in litres.

| Categories, appliances and scope of application | Testing procedure | Energy efficiency requirements | Manufacturing period |
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| Category 1: Domestic water heaters | | | |
| 1. Water heater | | | |
| 1. Natural gas or propane-fired water heater with a capacity of 76 L (20 US gallons) or more and of 380 L (100 US gallons) or less and an input rating of 22 kW (75,000 Btu/h) or less. Units designed for combination space and water heating applications are excluded. | Testing procedure provided for in CSA P.3-04, Testing Method for Measuring Energy Consumption and Determining Efficiencies of Gas-Fired Storage Water Heaters | $EF \geq 0.7 - 0.0005 \times Vn$ | As of 15 August 2017. |
| 2. Electric water heater with a | Testing procedure provided for in CAN/CSA C191-04, | Tank with bottom inlet $Vn \geq 50 \text{ L and } \leq 270 \text{ L} :$ | As of 15 August 2017. |

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| <p>capacity of 50 L (13 US gallons) or more and of 454 L (120 US gallons) or less and with an input rating of 12 kW or less.</p> <p>Units designed for combination space and water heating applications are excluded.</p> | <p>Performance of electric storage tank water heaters for domestic hot water service</p> | $SL \leq 0.2 \times V_n + 40$ | |
| | | $V_n > 270 \text{ L and } \leq 454 \text{ L} :$ $SL \leq 0.472 \times V_n - 33.5$ | |
| | | <p>Tank with top inlet</p> | |
| | | $V_n \geq 50 \text{ L and } < 160 \text{ L} :$ $SL \leq 0.2 \times V_n + 35$ | |
| | | $V_n \geq 160 \text{ L and } < 270 \text{ L} :$ $SL \leq 0.2 \times V_n + 25$ | |
| | | $V_n \geq 270 \text{ L and } \leq 290 \text{ L} :$ $SL \leq 0.472 \times V_n - 48.5$ | |
| | | $V_n > 290 \text{ L and } \leq 454 \text{ L} :$ $SL \leq 0.472 \times V_n - 38.5$ | |
| <p>Category 2: Heating or air-conditioning appliances</p> | | | |
| <p>1. Furnaces</p> | | | |
| <p>1. Natural gas or propane furnace, that uses single-phase electric current and that has an input rate of 65.92 kW (225,000 Btu/h) or less.</p> | <p>Testing procedure provided for in CAN/CSA P.2-13, Testing method for measuring the annual fuel utilization efficiency of residential gas-fired or oil-fired furnaces and boilers</p> | <p>Furnace for a mobile home or a recreational vehicle: AFUE \geq 80%</p> | <p>As of 15 August 2017.</p> |
| | | <p>Weatherized furnace that is not designed for a mobile home or a recreational vehicle equipped with an integrated cooling component: AFUE \geq 81%</p> | |
| | | <p>For all other furnaces: AFUE \geq 92%</p> | |
| <p>2. Natural gas or propane furnace, that uses three-phase electric current and that has an input rate of 65.92 kW (225,000 Btu/h) or less, but does not include a furnace for a mobile home or a recreational vehicle.</p> | <p>Testing procedure provided for in ANSI Z21.47 – 2012 CSA 2.3-2012 – Gas-fired central furnaces</p> | <p>AFUE \geq 78% or TE \geq 80%</p> | <p>As of 15 August 2017.</p> |
| <p>3. Gas furnace that has an input rate of more than 65.92 kW (225,000 Btu/h) and not more than</p> | <p>Testing procedure provided for in ANSI Z21.4 – 2012 CSA 2.3-2012 – Gas-fired central furnaces</p> | <p>Furnace for a mobile home or a recreational vehicle: TE \geq 75% and must not be equipped with a</p> | <p>As of 15 August 2017.</p> |

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| 117.23 kW (400,000 Btu/h). | | continuously burning pilot light For all other furnaces: TE ≥ 80% and must not be equipped with a continuously burning pilot light | |
| 4. Oil furnace that has an input rate of 65.92 kW (225,000 Btu/h) or less and that is fired only with oil or oil with another hydrocarbon. | Testing procedure provided for in CAN/CSA P.2-13, Testing method for measuring the annual fuel utilization efficiency of residential gas-fired or oil-fired furnaces and boilers | Furnace for a mobile home or a recreational vehicle: AFUE ≥ 75% Weatherized furnace that is not designed for a mobile home or a recreational vehicle: AFUE ≥ 78% Non-weatherized furnace that is not designed for a mobile home or a recreational vehicle: AFUE ≥ 83% and For all non-weatherized furnaces: the maximum electrical consumption in a standby or an off mode must be less than 11 W | As of 15 August 2017. |
| 2. Thermostats | | | |
| 1. Thermostat intended for line-voltage switching of a controlled resistive heating load (120 to 240 V). Thermostats used exclusively with radiant floors are excluded. | Testing procedure provided for in CAN/CSA C828-13, Performance requirements for thermostats used with individual room electric space heating devices For the duty cycle: the average temperature at the centre of the test room must be within 0.5°C of the original setpoint temperature of 22°C of the thermostat for a duty cycle of 50% | For all thermostats: the maximum absolute thermostat droop in temperature ≤ 1.5°C in absolute value For all thermostats, except fan-coil units: differential ≤ 0.5°C | As of 15 August 2017. |
| Category 3: Lighting units | | | |
| 1. General service lamps | | | |

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| <p>1. Electrical device providing a luminous flux of not less than 310 lm and not more than 2,600 lm, having a nominal voltage of not less than 100 V and not more than 130 V or a nominal voltage range included at least partially between those voltages and that is screw-based.</p> <p>The following lamps are excluded:</p> <p>(a) appliance lamps;</p> <p>(b) self-ballasted compact fluorescent lamps;</p> <p>(c) coloured lamps;</p> <p>(d) infrared lamps;</p> <p>(e) spherical shaped (G-shaped) lamps referred to in ANSI C78.20-2003, A, G, PS and Similar Shapes with E26 Medium Screw Bases, and ANSI C79.1-2002, Nomenclature for Glass Bulbs Intended for Use with Electric Lamps, with a diameter of at least 12.7 cm;</p> <p>(f) lamp that has a T-shape as specified in ANSI C78.20-2003 and ANSI C79.1-2002 and a maximum nominal power of 40 W or a length of more than 25.4 cm or both;</p> | <p>For En: IES LM-45-09, IES, Approved Method for the Electrical and Photometric Measurement of General Service Incandescent Filament Lamps</p> <p>For life: IES LM-49-12, IES, Approved Method for Life Testing of Incandescent Filament Lamps</p> <p>for CRI: CIE 13.3-1995, Method of Measuring and Specifying Colour Rendering Properties of Light Sources</p> <p>Bulbs must be tested at 120 V regardless of their nominal voltage.</p> | <p>En ≥ 45, CRI ≥ 80 and life ≥ 1,000 hours</p> | <p>As of 1 January 2019.</p> |
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| <p>(g) left-hand thread lamps;</p> <p>(h) plant lamps;</p> <p>(i) incandescent reflector lamps that have the shape specified in ANSI C79.1-2002;</p> <p>(j) vacuum type or gas-filled lamps that have a sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits and that are marketed as sign service lamps;</p> <p>(k) silver bowl lamp;</p> <p>(l) traffic signal modules, pedestrian modules or street lights;</p> <p>(m) submersible lamps;</p> <p>(n) lamp that have a screw base size of E5, E10, E11, E12, E17, E26/50×39, E26/53×39, E29/28, E29/53×39, E39, E39d, EP39 or EX39 as specified in ANSI C81.61-2009, Electrical Lamp Bases – Specifications for Bases (Caps) for Electric Lamps;</p> <p>(o) lamps that have a B, BA, CA, F, G16-1/2, G25, G30, S or M-14 shape or other similar shape as specified in ANSI C78.20-2003</p> | | | |
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| <p>and ANSI C79.1-2002 and a maximum nominal power of 40 W;</p> <p>(p) modified spectrum lamps;</p> <p>(q) light-emitting diode (LED) lamps;</p> <p>(r) rough service lamps;</p> <p>(s) vibration service lamps;</p> <p>(t) shatter-resistant lamps; and</p> <p>(u) three-way lamps.</p> | | | |
| <p>2. Modified spectrum incandescent lamps that have a luminous flux of at least 232 lm but not more than 1,950 lm, a nominal voltage of at least 110 V but not more than 130 V or a nominal voltage range that lies at least partially between those voltages, and a screw base.</p> <p>The following lamps are excluded:</p> <p>(a) appliance lamps;</p> <p>(b) self-ballasted compact fluorescent lamps;</p> <p>(c) coloured lamps;</p> <p>(d) infrared lamps;</p> <p>(e) lamps that have a G-shape as specified in ANSI C78.20-2003,</p> | <p>For En:</p> <p>IES LM-45-09, IES Approved Method for the Electrical and Photometric Measurement of General Service Incandescent Filament Lamps</p> <p>For life:</p> <p>IES LM-49-12, IES Approved Method for Life Testing of Incandescent Filament Lamps</p> <p>For CRI:</p> <p>CIE 13.3-1995, Method of Measuring and Specifying Colour Rendering Properties of Light Sources</p> <p>Bulbs must be tested at 120 V regardless of their nominal voltage.</p> | <p>En ≥ 45, CRI ≥ 75 and life ≥ 1,000 hours</p> | <p>As of 1 January 2019.</p> |

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| <p>A, G, PS and Similar Shapes with E26 Medium Screw Bases, and ANSI C79.1-2002, Nomenclature for Glass Bulbs Intended for Use with Electric Lamps, and a diameter of at least 12.7 cm;</p> <p>(f) lamps that have a T-shape as specified in ANSI C78.20-2003 and ANSI C79.1-2002 and a maximum nominal power of 40 W or a length of more than 25.4 cm or both;</p> <p>(g) left-hand thread lamps;</p> <p>(h) plant lamps;</p> <p>(i) incandescent reflector lamps that have a shape specified in ANSI C79.1-2002;</p> <p>(j) vacuum type or gas-filled lamps that have a sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits and that are marketed as sign service lamps;</p> <p>(k) silver bowl lamps;</p> <p>(l) traffic signal modules, pedestrian modules or street lights;</p> | | | |
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| <p>(m) submersible lamps;</p> <p>(n) lamps that have a screw base size of E5, E10, E11, E12, E17, E26/50×39, E26/53×39, E29/28, E29/53×39, E39, E39d, EP39 or EX39 as specified in ANSI C81.61-2009, Electrical Lamp Bases – Specifications for Bases (Caps) for Electric Lamps;</p> <p>(o) lamps that have a B, BA, CA, F, G16-1/2, G25, G30, S or M-14 shape or other similar shape as specified in ANSI C78.20-2003 and ANSI C79.1-2002, and a maximum nominal power of 40 W;</p> <p>(p) Light-emitting diode (LED) lamps;</p> <p>(q) rough service lamps;</p> <p>(r) vibration service lamps;</p> <p>(s) shatter-resistant lamps; and</p> <p>(t) three-way lamps.</p> | | | |
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SCHEDULE 2

(ss. 1.1, 3, 4 and 7)

APPLIANCES TO WHICH CERTAIN STANDARDS OF THE ENERGY EFFICIENCY REGULATIONS, 2016 (SOR/2016-311) APPLY

The following appliances are subject to certain standards specified in the Energy Efficiency Regulations, 2016 (SOR/2016-311):

Unit heaters

Gas-fired unit heaters

Lighting fixtures

Exit sign

Ceiling fan light kit

Pedestrian module

Traffic signal module

Torchiere

Ceiling fan

Household appliances

Freezer

Gas range

Electric range

Dehumidifier

Clothes washer

Integrated clothes washer-dryer

Dishwasher

Refrigerator and combination refrigerator-freezer

Dryer

Boilers

Gas boiler

Oil-fired boiler

Electric boiler

Water heater

Oil-fired water heater

Air conditioners, condensing units and chillers

Split-system central air conditioner

Single package central air conditioner

Large air conditioner

Room air conditioner

Packaged terminal air conditioner
Single package vertical air conditioner
Large condensing unit
Chiller

Lamps and lamp ballasts

Fluorescent lamp ballast
General service fluorescent lamp
General service incandescent reflector lamp

Motors

Motor

Electronic products

Video product
External power supply
Compact audio product
Television

Commercial refrigeration

Commercial freezer
Refrigerated beverage vending machine
Snack and refrigerated beverage vending machine
Ice-maker
Commercial refrigerator
Commercial refrigerator-freezer

Heat pumps

Internal water loop heat pump
Split-system heat pump
Large heat pump
Ground-source heat pump
Single package heat pump
Packaged terminal heat pump
Single package vertical heat pump

Dry-type transformers

Dry-type transformer

O.C. 1394-2018, s. 7.

UPDATES

O.C. 434-2017, 2017 G.O. 2, 1147
O.C. 875-2017, 2017 G.O. 2, 2651

O.C. 1394-2018, 2018 G.O. 2, 5238

