

Energy Efficiency Act

ENERGY EFFICIENCY STANDARDS REGULATION B.C. Reg. 14/2015

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Consolidated Regulations of British Columbia

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This consolidation includes any amendments deposited and in force as of the currency date at the bottom of each page. See the end of this regulation for any amendments deposited but not in force as of the currency date. Any amendments deposited after the currency date are listed in the B.C. Regulations Bulletins. All amendments to this regulation are listed in the *Index of B.C. Regulations*. Regulations Bulletins and the Index are available online at www.bclaws.ca.

See the User Guide for more information about the *Consolidated Regulations of British Columbia*. The User Guide and the *Consolidated Regulations of British Columbia* are available online at www.bclaws.ca.

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Energy Efficiency Act

ENERGY EFFICIENCY STANDARDS REGULATION B.C. Reg. 14/2015

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PART 1 – GENERAL PROVISIONS

Definitions

1 In this regulation:

"Act" means the Energy Efficiency Act;

- "ANSI" means the American National Standards Institute;
- "applicable efficiency standard", in relation to an energy device, means each efficiency standard that applies to the energy device under section 7 [prescribed efficiency standards] or, if applicable, section 8 [early adoption of future efficiency standards];
- "ASTM" means the American Society for Testing and Materials International;
- **"ASTM C518-04"** means ASTM standard ASTM C518-04 entitled *Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*;
- **"ASTM C518-10"** means ASTM standard ASTM C518-10 entitled *Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*;
- "BTU" means British thermal units;
- "CSA" means the Canadian Standards Association;
- "designated tester", in relation to an energy device, means a person, agency or organization that, under section 4 [designated testers], is designated and authorized to verify the energy device;
- "efficiency standards table" means a table referred to in section 2 [prescribed energy devices];
- "energy efficiency verification label" means a label required under section 5 (1);
- "federal Act" means the *Energy Efficiency Act* (Canada);
- "federal minister" has the same meaning as "Minister" in the federal Act;
- **"federal regulation"** means the Energy Efficiency Regulations, 2016 made under the federal Act;
- "label" means a printed decal, stamped plate or other permanent marking;
- **"manufactured fenestration product"** means an energy device referred to in column 1 of the efficiency standards table in section 27 [*efficiency standards for manufactured fenestration products*];
- "manufacturing information label" means a label required under section 6 (1);
- "NFRC" means the National Fenestration Rating Council;

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Part 1 - General Provisions

- **"RSI"** means an R-value expressed in SI units of metre squared Kelvin per watt, or m²×K/W;
- **"verify"** means applying a testing procedure to determine whether an energy device meets an applicable efficiency standard.

[am. B.C. Reg. 29/2018, Sch. 1, s. 1.]

Prescribed energy devices

- 2 For the purpose of the definition of "energy device" in section 1 of the Act, the products referred to in column 1 of the following tables are prescribed:
 - (a) the table in section 15 [efficiency standards for consumer electronic products];
 - (b) the table in section 27 [*efficiency standards for manufactured fenestration products*];
 - (c) the table in section 30 [efficiency standards for household appliances];
 - (d) the table in section 34 [efficiency standards for heating, ventilation and air conditioning products];
 - (e) the table in section 38 [efficiency standards for water heaters];
 - (f) the table in section 41 [efficiency standards for lighting products];
 - (g) the table in section 47 [efficiency standards for general purpose electric motors].

Prescribed date

3 For the purpose of section 2 (3) (a) *[exemption from section 2 (1) of Act]* of the Act, the prescribed date for an energy device referred to in column 1 in an item of an efficiency standards table is the date set out in column 2 opposite the energy device.

Designated testers

- 4 (1) In this section, **"certification program"** means a program of verification using standard testing procedures.
 - (2) For the purposes of verifying an energy device, the following persons, agencies or organizations are designated, and authorized as indicated, to make the verification:
 - (a) inspectors designated under section 3 (1) *[inspection and testing]* of the Act are authorized to verify any energy device;
 - (b) persons or organizations accredited by the Standards Council of Canada as certification bodies are authorized to verify any energy device to which the certification relates;
 - (c) agencies accredited by the NFRC as independent certification and inspection agencies are authorized to verify any manufactured fenestration product;

- (d) professional engineers, and architects authorized to practise in British Columbia, are authorized to verify the following:
 - (i) door slabs referred to in column 1 in item 1 of the efficiency standards table in section 27 [efficiency standards for manufactured fenestration products];
 - (ii) glazing products referred to in column 1 in item 2 of the efficiency standards table in section 27;
 - (iii) manufactured fenestration products, other than door slabs and glazing products referred to in subparagraphs (i) and (ii) of this paragraph, that
 - (A) are designed for a specific building, or
 - (B) fall outside the scope of a certification program.
- (3) Professional engineers and architects referred to in subsection (2) (d) must
 - (a) verify manufactured fenestration products referred to in subsection (2) (d)
 (iii) (A) of this section in the manner described in section 25 [efficiency standard exemption for manufactured fenestration products designed for specific buildings], and
 - (b) verify manufactured fenestration products referred to in subsection (2) (d)
 (iii) (B) of this section in the manner described in section 26 [calculation of U-value for atypical manufactured fenestration products].

Energy efficiency verification label

- 5 (1) For the purpose of section 2 (1) (b) *[prescribed label]* of the Act, every energy device, other than an energy device referred to in subsection (2) of this section, must have affixed to it an energy efficiency verification label that indicates, by way of a registered trademark, wordmark or symbol of a designated tester, that the designated tester has
 - (a) verified the energy device, and
 - (b) determined that the energy device meets the applicable efficiency standards.
 - (2) An energy efficiency verification label is not required for an energy device in respect of which one of the following sections of this regulation applies:
 - (a) section 13 [label exemption for compact audio products, televisions and video products compliant with federal Act];
 - (b) section 14 [label exemption for consumer battery charging systems with California label];
 - (c) section 24 [label exemption for manufactured fenestration products designed for specific buildings];
 - (d) section 29 [label exemption for clothes washers, dishwashers, refrigerators, combination refrigerator-freezers and freezers compliant with federal Act];

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- (e) section 32 [label exemption for gas furnaces compliant with federal Act];
- (f) section 36 [label exemption for water heaters compliant with federal Act];
- (g) section 39.2 [label exemption for certain lamps compliant with federal Act].
- (3) A person placing an energy efficiency verification label on an energy device, other than an energy device to which section 33.2 *[placement of label on vented gas fireplace heaters and vented decorative gas appliances]* applies, must affix the label so that the label is easily and readily seen on the energy device without the need to remove any covering.

[am. B.C. Reg. 29/2018, Sch. 1, s. 2.]

Manufacturing information label

- 6 (1) For the purpose of section 2 (1) (b) *[prescribed label]* of the Act, the manufacturer of an energy device made in British Columbia, and the importer of an energy device not made in British Columbia, must affix to the packaging of the energy device a manufacturing information label that sets out
 - (a) the manufacturer's name or identification, and
 - (b) the date of manufacture or a date code.
 - (2) A person placing a manufacturing information label on the packaging of an energy device must affix the label so that the label can be easily and readily seen without the need to remove any covering.

[en. B.C. Reg. 29/2018, Sch. 1, s. 3.]

Prescribed efficiency standards

- 7 (1) For an energy device referred to in column 1 in an item of an efficiency standards table,
 - (a) the efficiency standards for the energy device are the applicable standards set out or referred to in column 4 opposite that energy device,
 - (b) the testing procedures that must be used to determine whether the energy device meets an efficiency standard referred to in paragraph (a) are the applicable testing procedures set out or referred to in column 5 opposite the efficiency standard, and
 - (c) subject to section 8 *[early adoption of future efficiency standards]*, an efficiency standard referred to in paragraph (a) of this subsection and the corresponding testing procedure referred to in paragraph (b) of this subsection apply to the energy device if the energy device is manufactured during the period set out in column 3 opposite that energy device.
 - (2) Despite subsection (1),
 - (a) the efficiency standard for a manufactured fenestration product referred to in section 25 [efficiency standard exemption for manufactured fenestration products designed for specific buildings] may be met by the method set out in that section,

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- (b) the efficiency standard for a manufactured fenestration product referred to in section 26 [calculation of U-value for atypical manufactured fenestration products] may be met by the method set out in that section, and
- (c) in addition to meeting the efficiency standards referred to in subsection (1) (a) of this section, a fluorescent lamp ballast to which section 40 *[additional efficiency standard for fluorescent lamp ballasts]* applies must meet the efficiency standard referred to in subsection (2) of that section.

Early adoption of future efficiency standards

- 8 For the purposes of section 2 *[efficiency standards of energy devices]* of the Act, if 2 or more items in an efficiency standards table refer to the same energy devices in column 1 and
 - (a) one of the items in the efficiency standards table sets out an efficiency standard in column 4 and a corresponding testing procedure in column 5 that apply to the energy devices if they are manufactured during the period set out in column 3 opposite the energy devices, and
 - (b) one or more of the other items in that efficiency standards table set out an efficiency standard in column 4 and a corresponding testing procedure in column 5 that would apply to the energy devices if they were manufactured after the period referred to in paragraph (a) of this section,

the efficiency standard for the energy devices referred to in paragraph (a) of this section may be met by meeting an efficiency standard referred to in paragraph (b) of this section.

Verification report

- **9** (1) In this section, **"verification report"** means a report issued by a designated tester indicating that the designated tester has
 - (a) verified an energy device, and
 - (b) determined that the energy device meets the applicable efficiency standards.
 - (2) A verification report is evidence that an energy device meets the applicable efficiency standards.

Exemption from Act and regulation

- **10** The Act and this regulation do not apply to
 - (a) a person who manufactures an energy device in British Columbia, or
 - (b) a person who manufactures any thing in British Columbia that incorporates into it an energy device,

if that energy device or thing is manufactured for export from British Columbia.

Part 2 - Consumer Electronic Products

PART 2 – CONSUMER ELECTRONIC PRODUCTS

Definitions

- **11** In this Part:
 - **"C381.2-17"** means CSA standard C381.2-17 entitled *Energy performance of battery-charging systems and uninterruptible power supplies*;
 - "CAN/CSA C381.2-14" means CSA standard CAN/CSA C381.2-14 entitled *Test* method for determining the energy efficiency of battery-charging systems;
 - "CAN/CSA C62301-07" means CSA standard CAN/CSA C62301-07 entitled Household Electrical Appliances – Measurement of Standby Power;
 - "CAN/CSA C62301-11" means CSA standard CAN/CSA C62301-11 entitled Household electrical appliances – Measurement of standby power;
 - "compact audio product" has the same meaning as in the federal regulation;
 - **"consumer battery charging system"** means a battery charging system, including a battery charging system built into another product, that
 - (a) has an input capacity of less than 2 kW, and
 - (b) is distributed primarily for personal use by individuals,

but does not include a battery charging system excluded under section 12;

- " E_{24} ", in relation to a consumer battery charging system, means the energy consumption of the consumer battery charging system, in watt-hours, over a 24 hour period when the consumer battery charging system is charging or maintaining the batteries;
- "E_b", in relation to a consumer battery charging system, means the total capacity, in watt-hours, of all the batteries in the system;
- "E_{batt}", in relation to a consumer battery charging system, means the energy, in watt-hours, delivered by the consumer battery charging system;
- "N", in relation to a consumer battery charging system, means the number of charger ports;
- " $\mathbf{P}_{\mathbf{M}}$ ", in relation to a consumer battery charging system, means power usage in maintenance mode, which is the state the consumer battery charging system is in when
 - (a) the consumer battery charging system is connected to the main electricity supply, and
 - (b) the battery is fully charged, but is still connected to the consumer battery charging system;
- " P_0 ", in relation to a consumer battery charging system, means power usage in no-battery mode, which is the state the consumer battery charging system is in when

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- (a) the consumer battery charging system is connected to the main electricity supply,
- (b) the consumer battery charging system is not connected to the battery, and
- (c) each manual on-off switch, if any, is turned on;
- **"UEC"**, in relation to a consumer battery charging system, means the unit energy consumption of the consumer battery charging system expressed in kilowatthours per year, or kWh/yr;
- "video product" has the same meaning as in the federal regulation.

[am. B.C. Reg. 29/2018, Sch. 1, s. 4.]

Excluded consumer battery charging systems

- 12 For the purpose of the definition of "consumer battery charging system" in section 11, the following are excluded:
 - (a) an inductive battery charging system that uses
 - (i) less than one watt in maintenance mode,
 - (ii) less than one watt in no-battery mode, and
 - (iii) an average of one watt or less over the duration of the charge and maintenance mode test as determined under section 5.8 of CAN/CSA C381.2-14;
 - (b) a battery charging system incorporated into an uninterruptible power supply system that uses no more than $0.8 + 0.0021 \times E_b$ watts in maintenance mode;
 - (c) a battery analyzer or battery charging system for use in medical devices and exit signs;
 - (d) a battery charging system built into another product, if the other product is an energy device;
 - (e) a battery charging system that relies on solar energy or winding-up as its sole source of power.

Label exemption for compact audio products, televisions and video products compliant with federal Act

- 13 An energy efficiency verification label is not required for an energy device that is a compact audio product, television or video product if, in respect of the energy device,
 - (a) the information required under section 5 (1) *[information to be provided by dealers]* of the federal Act has been provided to the federal minister, or
 - (b) the manufacturer of the energy device provides a copy of the information required under section 5 (1) of the federal Act to an inspector designated under section 3 [inspection and testing] of the Act.

[am. B.C. Reg. 29/2018, Sch. 1, s. 5.]

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Part 2 – Consumer Electronic Products

Label exemption for consumer battery charging systems manufactured on or after June 13, 2018

An energy efficiency verification label is not required for a consumer battery charging system manufactured on or after June 13, 2018.
 [en. B.C. Reg. 29/2018, s. 6.]

Efficiency standards for consumer electronic products

15 The following efficiency standards table sets out the efficiency standards for energy devices that are consumer electronic products:

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	Compact audio products	Jan 1, 2013	Products manufactured between Jan 2, 2013 and June 1, 2018	 Must be capable of entering each of the following modes that are applicable to the individual product: (a) a standby mode with a power consumption of ≤ 1 watt, with information or status display active; (b) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display inactive; (c) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display; (d) an off mode with a power consumption of ≤ 0.5 watts. 	CAN/CSA C62301-07 tested at 115 volts, regardless of the nominal voltage of the energy device

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	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1.1	Compact audio products	June 1, 2018	Products manufactured on or after June 2, 2018	 Must be capable of entering each of the following modes that are applicable to the individual product: (a) a standby mode with a power consumption of ≤ 1 watt, with information or status display active; (b) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display inactive; (c) a standby mode with a power consumption of ≤ 0.5 watts, without information or status display; (d) an off mode with a power consumption of ≤ 0.5 watts. 	CAN/CSA C62301-11, tested at 115 volts, regardless of the nominal voltage of the energy device
2	Televisions	Jan 1, 2013	Products manufactured between Jan 2, 2013 and June 1, 2018	 Must be capable of entering each of the following modes that are applicable to the individual product: (a) a standby mode with a power consumption of ≤ 1 watt, with information or status display active; (b) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display inactive; (c) a standby mode with a power consumption of ≤ 0.5 watts, without information or status display; (d) an off mode with a power consumption of ≤ 0.5 watts. 	CAN/CSA C62301-07, tested at 115 volts, regardless of the nominal voltage of the energy device

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
2.1	Televisions	June 1, 2018	Products manufactured on or after June 2, 2018	 Must be capable of entering each of the following modes that are applicable to the individual product: (a) a standby mode with a power consumption of ≤ 1 watt, with information or status display active; (b) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display inactive; (c) a standby mode with a power consumption of ≤ 0.5 watts, without information or status display; (d) an off mode with a power consumption of ≤ 0.5 watts. 	CAN/CSA C62301-11, tested at 115 volts, regardless of the nominal voltage of the energy device
3	Video products	Jan 1, 2013	Products manufactured between Jan 2, 2013 and June 1, 2018	 Must be capable of entering each of the following modes that are applicable to the individual product: (a) a standby mode with a power consumption of ≤ 1 watt, with information or status display active; (b) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display inactive; (c) a standby mode with a power consumption of ≤ 0.5 watts, without information or status display; (d) an off mode with a power consumption of ≤ 0.5 watts. 	CAN/CSA C62301-07, tested at 115 volts, regardless of the nominal voltage of the energy device

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
3.1	Video products	June 1, 2018	Products manufactured on or after June 2, 2018	 Must be capable of entering each of the following modes that are applicable to the individual product: (a) a standby mode with a power consumption of ≤ 1 watt, with information or status display active; (b) a standby mode with a power consumption of ≤ 0.5 watts, with information or status display inactive; (c) a standby mode with a power consumption of ≤ 0.5 watts, without information or status display; (d) an off mode with a power consumption of ≤ 0.5 watts. 	CAN/CSA C62301-11, tested at 115 volts, regardless of the nominal voltage of the energy device
4	Consumer battery charging systems with E _b ≤ 2.5 watt- hours (for exclusions, see section 12)	May 31, 2015	Products manufactured between June 1, 2015 and June 12, 2018	E_{24} must be ≤ (16 x N) watt-hours $P_M + P_O$ must be ≤ (N + 0.0021 x E _b) watt- hours	CAN/CSA C381.2-14 CAN/CSA C381.2-14
5	Consumer battery charging systems with E _b > 2.5 watt- hours but ≤ 100 watt- hours (for exclusions, see section 12)	May 31, 2015	Products manufactured between June 1, 2015 and June 12, 2018	E_{24} must be ≤ (12 x N + 1.6 x E _b) watt- hours $P_M + P_O$ must be ≤ (N + 0.0021 x E _b) watt- hours	CAN/CSA C381.2-14 CAN/CSA C381.2-14

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	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
6	Consumer battery charging systems with E _b > 100 watt- hours but ≤ 1 000 watt-hours (for exclusions, see section 12)	May 31, 2015	Products manufactured between June 1, 2015 and June 12, 2018	E_{24} must be ≤ (22 x N + 1.5 x E _b) watt- hours $P_M + P_O$ must be ≤ (N + 0.0021 x E _b) watt- hours	CAN/CSA C381.2-14 CAN/CSA C381.2-14
7	Consumer battery charging systems with E _b > 1 000 watt-hours (for exclusions, see section 12)	May 31, 2015	Products manufactured between June 1, 2015 and June 12, 2018	E_{24} must be ≤ (36.4 x N + 1.486 x E _b) watt-hours P _M + P _O must be ≤ (N + 0.0021 x E _b) watt- hours	CAN/CSA C381.2-14 CAN/CSA C381.2-14
8	Consumer battery charging systems with E _{batt} ≤ 5 watt- hours that are designed for use in wet environ- ments and have inductive connections (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	UEC must be ≤ 3.04 kWh/yr	C381.2-17

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	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
9	Consumer battery charging systems, other than systems referred to in item 8, with E _{batt} < 100 watt- hours and battery voltage of < 4 volts (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	UEC must be ≤ 0.1440 x E _{batt} + 2.95 kWh/yr	C381.2-17
10	Consumer battery charging systems, other than systems referred to in item 8, with E _{batt} < 100 watt- hours and battery voltage of ≥ 4 volts but ≤ 10 volts (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	When E_{batt} is < 10 watt- hours, UEC must be ≤ 1.42 kWh/yr When E_{batt} is ≥ 10 watt- hours, UEC must be ≤ 0.0255 x E_{batt} + 1.16 kWh/yr	C381.2-17 C381.2-17

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
11	Consumer battery charging systems, other than systems referred to in item 8, with E _{batt} < 100 watt- hours and battery voltage of > 10 volts (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	UEC must be ≤ 0.11 x E _{batt} + 3.18 kWh/yr	C381.2-17
12	Consumer battery charging systems with E _{batt} ≥ 100 watt- hours but ≤ 3 000 watt-hours and battery voltage of < 20 volts (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	UEC must be ≤ 0.0257 x E _{batt} + 0.815 kWh/yr	C381.2-17

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	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
13	Consumer battery charging systems with E _{batt} ≥ 100 watt- hours but ≤ 3 000 watt-hours and battery voltage of ≥ 20 volts (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	UEC must be ≤ 0.0778 x E _{batt} + 2.4 kWh/yr	C381.2-17
14	Consumer battery charging systems with E _{batt} > 3 000 watt-hours (for exclusions, see section 12)	June 12, 2018	Products manufactured on or after June 13, 2018	UEC must be ≤ 0.0502 x E _{batt} + 4.53 kWh/yr	C381.2-17

Part 3 – Manufactured Fenestration Products

[am. B.C. Reg. 29/2018, Sch. 1, s. 7.]

PART 3 – MANUFACTURED FENESTRATION PRODUCTS

Definitions and interpretation

- **16** (1) In this Part:
 - "ASHRAE" means the American Society of Heating, Refrigeration and Air-Conditioning Engineers;
 - "CAN/CSA A440.2-04/A440.3-04" means CSA standard CAN/CSA A440.2-04/A440.3-04 entitled *Energy Performance of Windows and Other Fenestration Systems*;
 - "CAN/CSA A440.2-09/A440.3-09" means CSA standard CAN/CSA A440.2-09/A440.3-09 entitled *Fenestration energy performance*;
 - **"CAN/CSA A440.2-14/A440.3-14"** means CSA standard CAN/CSA A440.2-14/A440.3-14 entitled *Fenestration energy performance*;

Last amended January 1, 2020

Part 3 – Manufactured Fenestration Products

- "CMA" means the Component Modeling Approach developed by the NFRC;
- "CMA Label Certificate" means the CMA Label Certificate established by the NFRC;
- "designated heritage building" means a building that is
 - (a) on a Provincial heritage site within the meaning of the *Heritage Conservation Act* or otherwise included in the Provincial heritage register under that Act,
 - (b) protected through heritage designation or included in a community heritage register by a local government under the *Local Government Act*,
 - (c) protected through heritage designation or included in the heritage register by the Council under the *Vancouver Charter*, or
 - (d) protected through heritage designation or included in a community heritage register by the trust council or a local trust committee under the *Islands Trust Act*;
- "energy compliant building" means a building that meets one of the following:
 - (a) ASHRAE standard ASHRAE 90.1 (2010, 2013 or 2016) entitled *Energy Standard for Buildings Except Low-Rise Residential Buildings*;
 - (b) ASHRAE standard ASHRAE 189.1 (2014) entitled *Standard for the Design of High-Performance Green Buildings*;
 - (c) the National Energy Code of Canada for Buildings 2011 or 2015;
- "larger building" means
 - (a) a residential building with 5 or more storeys, or
 - (b) a non-residential building with floor space of more than 600 m^2 ;
- **"NFRC 100-2004"** means NFRC standard NFRC 100-2004 entitled *Procedure for Determining Fenestration Product U-Factors*;
- **"NFRC 100-2010"** means NFRC standard NFRC 100-2010 entitled *Procedure for Determining Fenestration Product U-Factors*;
- **"NFRC 100-2014"** means NFRC standard NFRC 100-2014 entitled *Procedure for Determining Fenestration Product U-factors*;
- "residential building" means a building with at least one residential unit;

"smaller building" means

- (a) a residential building with less than 5 storeys, or
- (b) a non-residential building with floor space of 600 m^2 or less;
- "U-value" means a measure of heat transfer expressed in watts per metre squared Kelvin, or W/[m²×K].
- (2) Door slabs referred to in column 1 in item 1 of the efficiency standards table in section 27 [*efficiency standards for manufactured fenestration products*]

Part 3 - Manufactured Fenestration Products

- (a) include only those door slabs that separate heated space from non-heated space, and
- (b) do not include door slabs referred to in section 17 [excluded door slabs].
- (3) Glazing products referred to in column 1 in item 2 of the efficiency standards table in section 27
 - (a) include only those glazing products that
 - (i) are for installation in door slabs, sidelites or transoms, and
 - (ii) separate heated space from non-heated space, and
 - (b) do not include products referred to in section 18 [excluded glazing products].
- (4) Non-metal, non-wood framed windows and sliding glass doors (for smaller buildings) referred to in column 1 in items 3 and 3.1 of the efficiency standards table in section 27
 - (a) include only those non-metal, non-wood framed windows and sliding glass doors that
 - (i) separate heated space from non-heated space, and
 - (ii) are installed in smaller buildings, and
 - (b) do not include products referred to in section 19 [excluded windows, doors, curtain walls, window walls and storefront windows (for smaller buildings)].
- (5) Wood framed windows and sliding glass doors (for smaller buildings) referred to in column 1 in items 4 and 4.1 of the efficiency standards table in section 27
 - (a) include only those wood framed windows and sliding glass doors that
 - (i) separate heated space from non-heated space, and
 - (ii) are installed in smaller buildings, and
 - (b) do not include products referred to in section 19.
- (6) Skylights referred to in column 1 in items 5 and 5.1 of the efficiency standards table in section 27
 - (a) include only those skylights that separate heated space from non-heated space, and
 - (b) do not include skylights installed in an energy compliant building.
- (7) Metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows (for smaller buildings) referred to in column 1 in items 6, 7 and 7.1 of the efficiency standards table in section 27
 - (a) include only those metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows that
 - (i) separate heated space from non-heated space, and
 - (ii) are installed in smaller buildings, and

(b) do not include products referred to in section 19.

- (7.1) Non-metal curtain walls, window walls and storefront windows (for smaller buildings) referred to in column 1 in item 7.2 of the efficiency standards table in section 27
 - (a) include only those non-metal curtain walls, window walls and storefront windows that
 - (i) separate heated space from non-heated space, and
 - (ii) are installed in smaller buildings, and
 - (b) do not include products referred to in section 19.
 - (8) Hinged and bi-folding doors (for smaller buildings) referred to in column 1 in items 8 and 8.1 of the efficiency standards table in section 27
 - (a) include only those hinged and bi-folding doors that
 - (i) are fully glazed into
 - (A) an aluminum sash construction,
 - (B) a fibreglass sash construction, or
 - (C) a steel sash construction,
 - (ii) separate heated space from non-heated space, and
 - (iii) are installed in smaller buildings, and
 - (b) do not include products referred to in section 19.
 - (9) Metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows (for larger buildings) referred to in column 1 in item 9 of the efficiency standards table in section 27
 - (a) include only those metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows that
 - (i) separate heated space from non-heated space, and
 - (ii) are installed in larger buildings, and
 - (b) do not include products referred to in section 20 [excluded windows, doors, curtain walls, window walls and storefront windows (for larger buildings)].
- (10) Non-metal windows, sliding glass doors, curtain walls, window walls and storefront windows (for larger buildings) referred to in column 1 in item 10 of the efficiency standards table in section 27
 - (a) include only those non-metal windows, sliding glass doors, curtain walls, window walls and storefront windows that
 - (i) separate heated space from non-heated space, and
 - (ii) are installed in larger buildings, and
 - (b) do not include products referred to in section 20.
 - [am. B.C. Reg. 29/2018, Sch. 1, s. 8 and Sch. 2, s. 1.]

Excluded door slabs

- 17 For the purposes of section 16 (2) (b), door slabs referred to in column 1 in item 1 of the efficiency standards table in section 27 *[efficiency standards for manufactured fenestration products]* do not include any of the following:
 - (a) a solid wood door slab;
 - (b) a door slab in a pre-hung door assembly with a maximum U-value of $1.80 \text{ W/[m^2 \times K]}$, tested in accordance with NFRC 100-2014;
 - (c) a door slab installed in a designated heritage building;
 - (d) a door slab installed in an energy compliant building.[am. B.C. Reg. 29/2018, Sch. 1, s. 9.]

Excluded glazing products

- **18** For the purposes of section 16 (3) (b), glazing products referred to in column 1 in item 2 of the efficiency standards table in section 27 *[efficiency standards for manufactured fenestration products]* do not include any of the following products:
 - (a) a glazing product installed in a pre-hung door assembly with a maximum U-value of $1.80 \text{ W/[m^2 \times K]}$, tested in accordance with NFRC 100-2014;
 - (b) a decorative glazing contained in a sealed insulating glass unit that has one or more stained glass panels, iron inserts or blinds;
 - (c) a glazing product installed in a designated heritage building;
 - (d) a glazing product installed in an energy compliant building. [am. B.C. Reg. 29/2018, Sch. 1, s. 10.]

Excluded windows, doors, curtain walls, window walls and storefront windows (for smaller buildings)

- **19** For the purposes of section 16 (4) (b), (5) (b), (7) (b), (7.1) (b) and (8) (b), the products referred to in column 1 in item 3, 3.1, 4, 4.1, 6, 7, 7.1, 7.2, 8 or 8.1 of the efficiency standards table in section 27 *[efficiency standards for manufactured fenestration products]* do not include any of the following products:
 - (a) a decorative window contained in a sealed insulating glass unit that has one or more stained glass panels, iron inserts or blinds;
 - (b) a glazing replacement in an existing sash or frame, if the U-value of the replacement glazing is less than or equal to the U-value of the original glazing;
 - (c) a window, curtain wall, window wall or storefront window installed in a designated heritage building;
 - (d) a window, door, curtain wall, window wall or storefront window installed in an energy compliant building.
 - [am. B.C. Reg. 29/2018, Sch. 1, s. 11.]

Part 3 – Manufactured Fenestration Products

Excluded windows, doors, curtain walls, window walls and storefront windows (for larger buildings)

- **20** For the purposes of section 16 (9) (b) and (10) (b), the products referred to in column 1 in item 9 or 10 of the efficiency standards table in section 27 *[efficiency standards for manufactured fenestration products]* do not include any of the following products:
 - (a) a glazing replacement in an existing sash or frame, if the U-value of the replacement glazing is less than or equal to the U-value of the original glazing;
 - (b) a skylight;
 - (c) a window, door, curtain wall, window wall or storefront window installed in a designated heritage building;
 - (d) a window, door, curtain wall, window wall or storefront window installed in an energy compliant building.
 - [am. B.C. Reg. 29/2018, Sch. 1, s. 12.]

Letter of assurance for energy compliant buildings

- (1) For the purposes of sections 17 (d), 18 (d), 19 (d) and 20 (d), a letter of assurance that meets the requirements set out in subsection (2) of this section is evidence that a building is an energy compliant building.
 - (2) The letter of assurance referred to in subsection (1)
 - (a) must be issued for the building by a registered professional of record, within the meaning of the British Columbia Building Code Regulation, B.C. Reg. 264/2012, and
 - (b) may be in the form set out under, as applicable,
 - (i) Schedule C-B in section 2.2.7 of Division C of the British Columbia Building Code Regulation, or
 - (ii) the building bylaws of the City of Vancouver.

Placement of label on manufactured fenestration products

- 22 (1) For the purposes of section 5 (3), an energy efficiency verification label must be placed on a manufactured fenestration product, other than a door slab, in one of the following ways:
 - (a) by affixing the label to the frame or spacer bar of the manufactured fenestration product so that the label is visible at all times;
 - (b) by affixing the label to the frame or sash of the manufactured fenestration product so that the label is visible when the sash is open;
 - (c) by affixing the label as a transparent adhesive label to the glass of the manufactured fenestration product;
 - (d) by etching the label into the surface of the glass of the manufactured fenestration product.

- (2) For the purposes of section 5 (3), an energy efficiency verification label must be placed on a door slab in one of the following ways:
 - (a) by affixing the label to the door slab so that the label is visible at all times;
 - (b) by affixing the label to the edge of the door slab so that the label is visible when the door is open.
 - [am. B.C. Reg. 29/2018, Sch. 1, s. 13.]

Additional label requirement for manufactured fenestration products

- (1) Subject to section 24, for the purposes of section 2 (1) (b) [prescribed label] of the Act, and in addition to an energy efficiency verification label and a manufacturing information label, a removable label that meets the requirements set out in subsection (2) of this section must be affixed to all manufactured fenestration products, other than door slabs and glazing products.
 - (2) The removable label referred to in subsection (1) must set out the U-value, as determined by a designated tester, of a manufactured fenestration product as follows:
 - (a) for a single operator type, the overall U-value of the manufactured fenestration product;
 - (b) for a combination or composite manufactured fenestration product composed of 2 or more operator types, each of which has a different U-value,
 - (i) the overall U-value of the manufactured fenestration product, or
 - (ii) the individual U-value for each of the operator types in the manufactured fenestration product.
 - (3) Section 5 (3) *[energy efficiency verification label]* applies to the removable label referred to in subsection (1) as if the removable label were an energy efficiency verification label.

[am. B.C. Reg. 29/2018, Sch. 1, s. 14.]

Label exemption for manufactured fenestration products designed for specific buildings

- 24 (1) For a manufactured fenestration product, other than a door slab or glazing product, an energy efficiency verification label, a manufacturing information label and the removable label required under section 23 are not required if
 - (a) the manufactured fenestration product is designed for a specific building, and
 - (b) a certificate meeting the requirements set out in subsection (2) of this section is posted at the specific building site.
 - (2) For the purposes of subsection (1) (b), the requirements for the certificate are as follows:
 - (a) the certificate must set out

Part 3 – Manufactured Fenestration Products

- (i) the U-value, as determined by a designated tester, for each manufactured fenestration product provided for the specific building, or
- (ii) for manufactured fenestration products to which section 25 applies, the average U-value, as determined by a designated tester, for each type of manufactured fenestration product provided for the specific building;
- (b) the certificate must be issued by a designated tester;
- (c) the certificate must be posted in plain view at the specific building site for a period of at least 120 days after the last of the manufactured fenestration products is installed in that specific building;
- (d) the certificate must be in the form of the CMA Label Certificate. [am. B.C. Reg. 29/2018, Sch. 1, s. 15 and Sch. 2, s. 2.]

Efficiency standard exemption for manufactured fenestration products designed for specific buildings

25 For manufactured fenestration products, other than door slabs and glazing products, that are designed for a specific building, if 2 or more of the same type of manufactured fenestration products are installed in the specific building, the applicable efficiency standard for each manufactured fenestration product of that type may be met by demonstrating that the average U-value, as determined by a designated tester, of those manufactured fenestration products meets the applicable efficiency standard.

Calculation of U-value for atypical manufactured fenestration products

26 For a manufactured fenestration product, other than a door slab or glazing product, for which the U-value, by reason of its atypical shape, size or other feature, cannot be determined by a designated tester using standard testing procedures, the actual size of the manufactured fenestration product may be used for calculating the U-value of that manufactured fenestration product.

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Part 3 – Manufactured Fenestration Products

Efficiency standards for manufactured fenestration products

27 The following efficiency standards table sets out the efficiency standards for energy devices that are manufactured fenestration products:

	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	Door slabs (for exclusions, see sections 16 (2) and 17)	June 1, 2009	Products manufactured on or after June 2, 2009 Products	The door panels must be insulated with products with an RSI ≥ 0.875 m ² ×K/W	ASTM C518-04 or ASTM C518-10
2	clazing products (for exclusions, see sections 16 (3) and 18)	June 1, 2009	manufactured on or after June 2, 2009	 (a) must be multiple glazed with at least one low-emissivity coating between glazing, (b) must have a 90% argon gas fill level with a compatible edge sealant system, and (c) must have spacer bars and if the spacer bars are aluminum box spacer bars, the aluminum box spacer bars must have a thermal break. 	
3	Non-metal, non-wood framed windows and sliding glass doors (for smaller buildings) (for exclusions, see sections 16 (4) and 19)	March 1, 2009	Products manufactured between March 2, 2009 and June 1, 2018	U-value must be ≤ 2.0 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
3.1	Non-metal, non-wood framed windows and sliding glass doors (for smaller buildings) (for exclusions, see sections 16 (4) and 19)	June 1, 2018	Products manufactured on or after June 2, 2018	U-value must be ≤ 1.80 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN-CSA A440.2- 14/A440.3-14; (b) NFRC 100-2014.
4	Wood framed windows and sliding glass doors (for smaller buildings) (for exclusions, see sections 16 (5) and 19)	Jan 1, 2011	Products manufactured between Jan 2, 2011 and June 1, 2018	U-value must be ≤ 2.0 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.
4.1	Wood framed windows and sliding glass doors (for smaller buildings) (for exclusions, see sections 16 (5) and 19)	June 1, 2018	Products manufactured on or after June 2, 2018	U-value must be ≤ 1.80 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN-CSA A440.2- 14/A440.3-14; (b) NFRC 100-2014.

Part 3 – Manufactured Fenestration Products

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
5	Skylights (for exclusions, see section 16 (6))	March 1, 2009	Products manufactured between March 2, 2009 and June 1, 2018	U-value must be ≤ 3.10 W/[m ² ×K]	 The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.
5.1	Skylights (for exclusions, see section 16 (6))	June 1, 2018	Products manufactured on or after June 2, 2018	U-value must be ≤ 2.90 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN-CSA A440.2- 14/A440.3-14; (b) NFRC 100-2014.
6	Metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows (for smaller buildings) (for exclusions, see sections 16 (7) and 19)	June 1, 2009	Products manufactured between June 2, 2009 and Jan 1, 2011	U-value must be ≤ 2.57 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.

Part 3 – Manufactured Fenestration Products

Last amended January 1, 2020

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
7	Metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows (for smaller buildings) (for exclusions, see sections 16 (7) and 19)	Jan 1, 2011	Products manufactured between Jan 2, 2011 and June 1, 2018	U-value must be ≤ 2.0 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.
7.1	Metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows (for smaller buildings) (for exclusions, see sections 16 (7) and 19)	June 1, 2018	Products manufactured on or after June 2, 2018	U-value must be ≤ 1.80 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN-CSA A440.2- 14/A440.3-14; (b) NFRC 100-2014.

Part 3 – Manufactured Fenestration Products

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	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
7.2	Non-metal curtain walls, window storefront windows (for smaller buildings) (for exclusions, see sections 16 (7.1) and 19)	June 1, 2018	Products manufactured on or after June 2, 2018	U-value must be ≤ 1.80 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN-CSA A440.2- 14/A440.3-14; (b) NFRC 100-2014.
8	Hinged and bi-folding doors (for smaller buildings) (for exclusions, see sections 16 (8) and 19) Hinged and bi-folding doors (for smaller buildings) (for exclusions, see sections 16 (8) and 19)	Jan 1, 2012 June 1, 2018	Products manufactured between Jan 2, 2012 and June 1, 2018 Products manufactured on or after June 2, 2018	U-value must be ≤ 2.0 W/[m ² ×K] U-value must be ≤ 1.80 W/[m ² ×K]	 The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010. The procedure set out in one of the following: (a) CAN-CSA A440.2- 14/A440.3-14; (b) NFRC 100-2014.

Part 3 – Manufactured Fenestration Products

ENERGY EFFICIENCY STANDARDS REGULATION

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
9	Metal framed windows, sliding glass doors, curtain walls, window walls and storefront windows (for larger buildings) (for exclusions, see sections 16 (9) and 20)	Jan 1, 2011	Products manufactured on or after Jan 2, 2011	U-value must be ≤ 2.57 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.
10	Non-metal windows, sliding glass doors, curtain walls, window walls and storefront windows (for larger buildings) (for exclusions, see sections 16 (10) and 20)	Jan 1, 2011	Products manufactured on or after Jan 2, 2011	U-value must be ≤ 2.0 W/[m ² ×K]	The procedure set out in one of the following: (a) CAN/CSA A440.2-04/A440.3-04; (b) CAN/CSA A440.2-09/A440.3-09; (c) NFRC 100-2004 or NFRC 100-2010.

Part 4 - Household Appliances

[am. B.C. Reg. 29/2018, Sch. 1, s. 16.]

PART 4 – HOUSEHOLD APPLIANCES

Definitions

28 In this Part:

"CAN/CSA C300-M91" means CSA standard CAN/CSA C300-M91 entitled Capacity Measurement and Energy Consumption Test Methods for Refrigerators, Combination Refrigerator-Freezers and Freezers; Part 4 – Household Appliances

- "CAN/CSA C360-13" means CSA standard CAN/CSA C360-13 entitled *Energy performance, water consumption and capacity of household clothes washers*;
- "CAN/CSA C373-14" means CSA standard CAN/CSA C373-14 entitled *Energy performance and water consumption of household dishwashers*;
- "clothes washer" means a household automatic clothes washer that is electrically operated;
- **"combination refrigerator-freezer"** means a household combination refrigeratorfreezer that has a capacity of up to 1 100 litres, but does not include a combination refrigerator-freezer that uses an absorption refrigeration system;
- "**compact clothes washer**" means a clothes washer that has a capacity of less than 1.6 ft³;
- "**compact dishwasher**" means a dishwasher that has the capacity to hold up to 8 place settings;
- "**dishwasher**" means a household automatic dishwasher that is electrically operated, but does not include a commercial, industrial or institutional dishwasher;
- **"freezer"** means a household freezer that has a capacity of up to 850 litres, but does not include a freezer that uses an absorption refrigeration system;
- **"refrigerator"** means a household refrigerator that has a capacity of up to 1 100 litres, but does not include a refrigerator that uses an absorption refrigeration system;
- "standard capacity clothes washer" means a clothes washer that has a capacity of 1.6 ft³ or more;
- **"standard capacity dishwasher"** means a dishwasher that has the capacity to hold more than 8 place settings.

Label exemption for clothes washers, dishwashers, refrigerators, combination refrigerator-freezers and freezers compliant with federal Act

- **29** An energy efficiency verification label is not required for an energy device that is a clothes washer, dishwasher, refrigerator, combination refrigerator-freezer or freezer if, in respect of the energy device,
 - (a) the information required under section 5 (1) *[information to be provided by dealers]* of the federal Act has been provided to the federal minister, or
 - (b) the manufacturer of the energy device provides a copy of the information required under section 5 (1) of the federal Act to an inspector designated under section 3 *[inspection and testing]* of the Act.

[am. B.C. Reg. 29/2018, Sch. 1, s. 5.]

ENERGY EFFICIENCY STANDARDS REGULATION

Part 4 – Household Appliances

Efficiency standards for household appliances

30 The following efficiency standards table sets out the efficiency standards for energy devices that are household appliances:

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	Compact clothes washers that are top loading	May 31, 2015	Products manufactured between June 1, 2015 and Dec 31, 2017	Integrated modified energy factor must be ≥ 0.86 ft ³ /kWh/cycle	CAN/CSA C360-13
2	Compact	Dec 31, 2017	Products	must be \leq 14.4 gal/cycle/ft ³	CAN/CSA C360-13
	clothes washers that are top		manufactured on or after Jan 1, 2018	factor must be ≥ 1.15 ft ³ /kWh/cycle	
	loading			Integrated water factor must be \leq 12 gal/cycle/ft ³	CAN/CSA C360-13
3	Standard capacity clothes washers that are top	May 31, 2015	Products manufactured between June 1, 2015 and Dec 31, 2017	Integrated modified energy factor must be ≥ 1.29 ft ³ /kWh/cycle	CAN/CSA C360-13 CAN/CSA C360-13
	loading	Dec 01 0017	Draduete	must be ≤ 8.4 gal/cycle/ft ³	CAN/CCA C000 10
4	capacity clothes washers that	Dec 31, 2017	manufactured on or after Jan 1, 2018	factor must be ≥ 1.57 ft ³ /kWh/cycle	CAN/CSA C360-13
	are top Ioading			Integrated water factor must be ≤ 6.5 gal/cycle/ft ³	CAN/CSA C360-13
5	Compact clothes washers that are front	May 31, 2015	Products manufactured on or after June 1, 2015	Integrated modified energy factor must be ≥ 1.13 ft ³ /kWh/cycle	CAN/CSA C360-13
	loading			Integrated water factor must be ≤ 8.3 gal/cycle/ft ³	CAN/CSA C360-13
6	Standard capacity clothes washers that	Dec 31, 2017	Products manufactured on or after Jan 1, 2018	Integrated modified energy factor must be ≥ 1.84 ft ³ /kWh/cycle	CAN/CSA C360-13
	are front loading			Integrated water factor must be ≤ 4.7 gal/cycle/ft ³	CAN/CSA C360-13

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
7	Compact dishwashers (for exclusions, see the definition of "dishwasher" in section 28)	May 31, 2015	Products manufactured on or after June 1, 2015	Estimated annual energy use must be ≤ 222 kWh/yr Water consumption must be ≤ 3.5 gal/cycle	CAN/CSA C373-14 CAN/CSA C373-14
8	Standard capacity dishwashers (for exclusions, see the definition of "dishwasher" in section 28)	May 31, 2015	Products manufactured on or after June 1, 2015	Estimated annual energy use must be ≤ 307 kWh/yr Water consumption must be ≤ 5.0 gal/cycle	CAN/CSA C373-14 CAN/CSA C373-14
9	Refrigerators, combination refrigerator- freezers and freezers (for exclusions, see the definitions of "refrigerator", "combination refrigerator- freezer" and "freezer" in section 28)	Jan 1, 1994	Products manufactured on or after Jan 2, 1994	Standard set out in column 4 of CAN/CSA C300-M91	CAN/CSA C300-M91

Part 5 – Heating, Ventilation and Air Conditioning Products

[am. B.C. Reg. 29/2018, Sch. 1, s. 17.]

PART 5 - HEATING, VENTILATION AND AIR CONDITIONING PRODUCTS

Definitions

31 In this Part:

"AFUE" means annual fuel utilization efficiency;

- "ANSI Z21.13-2004/CSA 4.9-2004" means ANSI standard ANSI Z21.13-2004/CSA 4.9-2004 entitled Gas-Fired Low Pressure Steam and Hot Water Boilers;
- "ANSI Z21.50-2016/CSA 2.22-2016" means ANSI standard ANSI Z21.50-2016/CSA 2.22-2016 entitled *Vented decorative gas appliances*;

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- **"ANSI Z21.88-2016/CSA 2.33-2016"** means ANSI standard ANSI Z21.88-2016/CSA 2.33-2016 entitled *Vented gas fireplace heaters*;
- **"boiler"** means a natural gas or propane fired boiler that has an input rating of greater than 88 kW or 300 000 BTU/h;
- **"C656-14"** means CSA standard C656-14 entitled *Performance standard for split*system and single-package air conditioners and heat pumps;
- "CAN/CSA C656-M92" means CSA standard CAN/CSA C656-M92 entitled Performance Standard for Single Package Central Air-Conditioners and Heat Pumps;
- "CAN/CSA C828-06" means CSA standard CAN/CSA C828-06 entitled Performance Requirements for Thermostats Used with Individual Room Electric Space Heating Devices;
- **"CAN/CSA P.2-13"** means CSA standard CAN/CSA P.2-13 entitled *Testing method* for measuring the annual fuel utilization efficiency of residential gas-fired or oil-fired furnaces and boilers;
- "CAN/CSA P.4.1-02" means CSA standard CAN/CSA P.4.1-02 entitled *Testing Method for Measuring Annual Fireplace Efficiency*;
- "CAN/CSA P.4.1-15" means CSA standard CAN/CSA-P.4.1-15 entitled *Testing method for measuring annual fireplace efficiency*;
- **"FE rating"** means the annual fireplace efficiency rating of a gas fireplace, vented gas fireplace heater or vented decorative gas appliance;
- "GAMA BTS-2000" means GAMA BTS-2000 standard of the Hydronics Institute Division of the Air Conditioning, Heating and Refrigeration Institute (USA) entitled *Method to Determine Efficiency of Commercial Space Heating Boilers*;
- "gas fireplace" means a gas fireplace that uses propane or natural gas, including an insert or free-standing stove;
- "gas furnace" has the same meaning as in the federal regulation;
- **"HSPF"** means the heating seasonal performance factor, expressed in British thermal units per watt-hour or BTU/watt-hr;
- "outdoor gas furnace" means a gas furnace that uses a single-phase electric current and is for use outdoors;
- **"replacement gas furnace"** means a gas furnace for use as a replacement furnace in a residential building;
- "single-phase and three-phase split-system heat pump" means a heat pump that
 - (a) is a split-system,
 - (b) uses a single-phase or three-phase electric current, and
 - (c) is rated at a capacity of less than 19 kW or 65 000 BTU/h;

Part 5 – Heating, Ventilation and Air Conditioning Products

"thermostat" means a thermostat used for line-voltage switching of a controlled resistive heating load, including wall-mounted thermostats, built-in thermostats and two-component thermostats;

"three-phase system air conditioner" means an air conditioner that

- (a) uses a three-phase electric current,
- (b) is factory built, and
- (c) is rated at a capacity of less than or equal to 19 kW or 65 000 BTU/h;

"three-phase system heat pump" means a heat pump that

- (a) uses a three-phase electric current,
- (b) is factory built, and
- (c) is rated at a capacity of less than or equal to 19 kW or 65 000 BTU/h;
- "through-the-wall gas furnace" means a through-the-wall gas furnace that uses a single-phase electric current;
- "vented decorative gas appliance" means a vented decorative gas appliance that is within the scope of ANSI Z21.50-2016/CSA 2.22-2016;
- **"vented gas fireplace heater"** means a vented gas fireplace heater that is within the scope of ANSI Z21.88-2016/CSA 2.33-2016.

[en. B.C. Reg. 29/2018, Sch. 1, s. 18.]

Label exemption for gas furnaces compliant with federal Act

- 32 An energy efficiency verification label is not required for an energy device that is a gas furnace if, in respect of the energy device,
 - (a) the information required under section 5 (1) *[information to be provided by dealers]* of the federal Act has been provided to the federal minister, or
 - (b) the manufacturer of the energy device provides a copy of the information required under section 5 (1) of the federal Act to an inspector designated under section 3 *[inspection and testing]* of the Act.

[am. B.C. Reg. 29/2018, Sch. 1, s. 5.]

FE rating and label requirements for gas fireplaces

- 33 (1) An FE rating for a gas fireplace manufactured between January 2, 2007 and December 31, 2018 must be determined in accordance with one of the testing procedures referred to in column 5 in item 12 of the efficiency standards table in section 34.
 - (2) For the purposes of section 2 (1) (b) *[prescribed label]* of the Act, an energy efficiency verification label for a gas fireplace referred to in subsection (1) of this section must set out the FE rating for the gas fireplace.

[en. B.C. Reg. 29/2018, Sch. 1, s. 19.]

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Part 5 – Heating, Ventilation and Air Conditioning Products

FE rating and label requirements for vented gas fireplace heaters and vented decorative gas appliances

- 33.1 (1) An FE rating for a vented gas fireplace heater or vented decorative gas appliance manufactured on or after January 1, 2019 must be determined in accordance with the testing procedure referred to in column 5 in item 12.1 or 12.2, as applicable, of the efficiency standards table in section 34.
 - (2) For the purposes of section 2 (1) (b) *[prescribed label]* of the Act, an energy efficiency verification label for a vented gas fireplace heater or vented decorative gas appliance referred to in subsection (1) of this section must,
 - (a) in the case of a vented gas fireplace heater, set out the FE rating for the vented gas fireplace heater, and
 - (b) in the case of a vented decorative gas appliance,
 - (i) set out the FE rating for the vented decorative gas appliance, and
 - (ii) indicate that the vented decorative gas appliance is a decorative product and is not intended to be used as a heating appliance.
 - [en. B.C. Reg. 29/2018, Sch. 1, s. 19.]

Placement of label on vented gas fireplace heaters and vented decorative gas appliances

- 33.2 (1) A person placing an energy efficiency verification label on a vented gas fireplace heater or vented decorative gas appliance referred to in section 33.1 must affix the label to the rating plate for the vented gas fireplace heater or vented decorative gas appliance.
 - (2) For a vented gas fireplace heater or vented decorative gas appliance referred to in section 33.1 that is in a sales display, all of the information on the energy efficiency verification label for the vented gas fireplace heater or vented decorative gas appliance must be placed near that vented gas fireplace heater or vented decorative gas appliance so that the information can be easily and readily seen.

[en. B.C. Reg. 29/2018, Sch. 1, s. 19.]

Part 5 – Heating, Ventilation and Air Conditioning Products

Efficiency standards for heating, ventilation and air conditioning products

34 The following efficiency standards table sets out the efficiency standards for energy devices that are heating, ventilation or air conditioning products:

	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	 Gas furnaces, other than (a) replacement gas furnaces, (b) outdoor gas furnaces, and (c) through-the-wall gas furnaces. 	Jan 1, 2008	Products manufactured between Jan 2, 2008 and May 31, 2015	AFUE must be ≥ 90%	CAN/CSA P.2-13
2	 Gas furnaces, other than (a) replacement gas furnaces, (b) outdoor gas furnaces, and (c) through-the-wall gas furnaces. 	May 31, 2015	Products manufactured on or after June 1, 2015	AFUE must be ≥ 92%	CAN/CSA P.2-13
3	Replacement gas furnaces other than (a) outdoor gas furnaces, and (b) through-the-wall gas furnaces.	Dec 31, 2009	Products manufactured between Jan 1, 2010 and May 31, 2015	AFUE must be ≥ 90%	CAN/CSA P.2-13
4	Replacement gas furnaces other than (a) outdoor gas furnaces, and (b) through-the-wall gas furnaces.	May 31, 2015	Products manufactured on or after June 1, 2015	AFUE must be ≥ 92%	CAN/CSA P.2-13
5	Outdoor gas furnaces and through-the-wall gas furnaces, other than those with an integrated cooling component	Dec 31, 2009	Products manufactured between Jan 1, 2010 and May 31, 2015	AFUE must be ≥ 90%	CAN/CSA P.2-13
6	Outdoor gas furnaces and through-the-wall gas furnaces, other than those with an integrated cooling component	May 31, 2015	Products manufactured on or after June 1, 2015	AFUE must be ≥ 92%	CAN/CSA P.2-13
7	Outdoor gas furnaces with an integrated cooling component	Dec 31, 2009	Products manufactured on or after Jan 1, 2010	AFUE must be ≥ 78%	CAN/CSA P.2-13

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
8	Through-the-wall gas furnaces with an integrated cooling component	Dec 31, 2009	Products manufactured between Jan 1, 2010 and Dec 31, 2012	AFUE must be ≥ 78%	CAN/CSA P.2-13
9	Through-the-wall gas furnaces with an integrated cooling component	Dec 31, 2012	Products manufactured between Jan 1, 2013 and May 31, 2015	AFUE must be ≥ 90%	CAN/CSA P.2-13
10	Through-the-wall gas furnaces with an integrated cooling component	May 31, 2015	Products manufactured on or after June 1, 2015	AFUE must be ≥ 92%	CAN/CSA P.2-13
11	Thermostats	Jan 1, 2007	Products manufactured on or after Jan 2, 2007	Differential must be $\leq 0.5^{\circ}$ C Droop must be $\leq 2^{\circ}$ C	CAN/CSA C828-06
12	Gas fireplaces	Jan 1, 2007	Products manufactured between Jan 2, 2007 and Dec 31, 2018	Not applicable (see section 33)	The procedure set out in one of the following: (a) CAN/CSA P.4.1- 02; (b) CAN/CSA P.4.1- 15.
12.1	Vented gas fireplace heaters	Dec 31, 2018	Products manufactured on or after Jan 1, 2019	FE rating must be ≥ 50% Must have pilot-on- demand, interrupted or intermittent ignition system Must not have standing pilot light	CAN/CSA P.4.1-15

Part 5 – Heating, Ventilation and Air Conditioning Products

ENERGY EFFICIENCY ACT ENERGY EFFICIENCY STANDARDS REGULATION

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
12.2	Vented decorative gas appliances	Dec 31, 2018	Products manufactured on or after Jan 1, 2019	Must have pilot-on- demand, interrupted or intermittent ignition system Must not have standing pilot light	CAN/CSA P.4.1-15
13	Boilers	Jan 1, 2007	Products manufactured on or after Jan 2, 2007	Combustion efficiency must be ≥ 80%	The procedure set out in either of the following: (a) ANSI Z21.13-2004/ CSA 4.9-2004; (b) GAMA BTS-2000.
14	Repealed. [B.C. Reg. 29/2018, So	ch. 1, s. 20 (b).]			
15	Three-phase system air conditioners and three-phase system heat pumps	Jan 1, 1996	Products manufactured between Jan 2, 1996 and June 1, 2018	The standard set out in Clause 5.2 of CAN/CSA C656-M92	CAN/CSA C656-M92
16	Single-phase and three-phase split-system heat pumps	June 1, 2018	Products manufactured between June 2, 2018 and Dec 31, 2019	HSPF must be ≥ 7.1	C656-14, as applied using the generalized climatic region information for Region V
17	Single-phase and three-phase split-system heat pumps	Dec 31, 2019	Products manufactured on or after Jan 1, 2020	HSPF must be ≥ 7.39	C656-14, as applied using the generalized climatic region information for Region V

Part 5 – Heating, Ventilation and Air Conditioning Products

[am. B.C. Reg. 29/2018, Sch. 1, s. 20.]

Part 6 – Water Heaters

PART 6 – WATER HEATERS

Definitions

35 In this Part:

"bottom inlet" has the same meaning as in the federal regulation;

- **"CAN/CSA C191-04"** means CSA standard CAN/CSA C191-04 entitled *Performance of Electric Storage Tank Water Heaters for Domestic Hot Water Service*;
- **"CAN/CSA P.3-04"** means CSA standard CAN/CSA P.3-04 entitled *Testing Method* for Measuring Energy Consumption and Determining Efficiencies of Gas-Fired Storage Water Heaters;
- "electric storage-type water heater" means a water heater that has
 - (a) a hot water storage tank that uses electricity to heat the water,
 - (b) a top inlet or bottom inlet, and
 - (c) a rated storage capacity of 50 to 454 litres;
- **"heat trap"**, in relation to an electric storage-type water heater, means a device or pipe configuration that
 - (a) is integrally connected or independently attached to the water inlet or water outlet of the electric storage-type water heater, and
 - (b) creates a thermal or mechanical seal to minimize the recirculation of water resulting from natural thermal convection between the hot water storage tank and the water inlet or water outlet of the hot water storage tank;
- "natural gas or propane storage-type water heater" means a water heater that has
 - (a) a hot water storage tank that uses natural gas or propane to heat the water,
 - (b) a rated storage capacity of 76 to 380 litres, and
 - (c) an input rating of less than or equal to 21.98 kW or 75 000 BTU/h;

"responsible person", in relation to an electric storage-type water heater, means

- (a) the person who installs the electric storage-type water heater, and
- (b) the person who has control over the installation of the electric storage-type water heater in the premises;
- **"V"**, in relation to an electric storage-type water heater or a natural gas or propane storage-type water heater, means the volume in litres of the rated storage capacity of the water heater.

Label exemption for water heaters compliant with federal Act

36 An energy efficiency verification label is not required for an energy device that is an electric storage-type water heater or a natural gas or propane storage-type water heater if, in respect of the energy device,

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- (a) the information required under section 5 (1) *[information to be provided by dealers]* of the federal Act has been provided to the federal minister, or
- (b) the manufacturer of the energy device provides a copy of the information required under section 5 (1) of the federal Act to an inspector designated under section 3 [inspection and testing] of the Act.
 [am. B.C. Reg. 29/2018, Sch. 1, s. 5.]

Installation of electric storage-type water heaters

- 37 (1) A responsible person must ensure that a functioning heat trap is installed with an electric storage-type water heater, as follows:
 - (a) in the case of an electric storage-type water heater with a top inlet, at the water inlet and at the water outlet;
 - (b) in the case of an electric storage-type water heater with a bottom inlet, at the water outlet.
 - (2) A responsible person must also ensure that insulation with a minimum RSI of $0.70 \text{ m}^2 \times \text{K/W}$, as determined in accordance with ASTM C518-10, is installed with the heat trap required under subsection (1), as follows:
 - (a) in the case of a heat trap that is integrally connected to the electric storagetype water heater,
 - (i) on the first 3 metres of exposed water inlet piping upstream of the hot water storage tank, and
 - (ii) on the first 3 metres of exposed water outlet piping downstream of the hot water storage tank;
 - (b) in the case of a heat trap that is independently attached to the electric storage-type water heater,
 - (i) on the first 3 metres of exposed water inlet piping upstream of the hot water storage tank,
 - (ii) on the first 3 metres of exposed water outlet piping downstream of the hot water storage tank, and
 - (iii) on the water inlet and water outlet piping between the hot water storage tank and the heat trap.

ENERGY EFFICIENCY STANDARDS REGULATION

Part 7 - Lighting Products

Efficiency standards for water heaters

38 The following efficiency standards table sets out the efficiency standards for energy devices that are water heaters:

	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	Electric storage-type water heaters having a top inlet and a rated storage capacity of 50 to 270 litres	Sept 1, 2010	Products manufactured on or after Sept 2, 2010	Standby loss (in watts) must be $\leq 25 + (0.20 \times V)$	CAN/CSA C191-04
2	Electric storage-type water heaters having a top inlet and a rated storage capacity of 271 to 454 litres	Sept 1, 2010	Products manufactured on or after Sept 2, 2010	Standby loss (in watts) must be $\leq (0.472 \times V)$ - 48.5	CAN/CSA C191-04
3	Electric storage-type water heaters having a bottom inlet and a rated storage capacity of 50 to 270 litres	Sept 1, 2010	Products manufactured on or after Sept 2, 2010	Standby loss (in watts) must be ≤ 40 + (0.20 × V)	CAN/CSA C191-04
4	Electric storage-type water heaters having a bottom inlet and a rated storage capacity of 271 to 454 litres	Sept 1, 2010	Products manufactured on or after Sept 2, 2010	Standby loss (in watts) must be $\leq (0.472 \times V)$ - 33.5	CAN/CSA C191-04
5	Natural gas or propane storage-type water heaters	Sept 1, 2010	Products manufactured on or after Sept 2, 2010	Energy factor must be ≥ 0.70 – (0.0005 × V)	CAN/CSA P.3-04

PART 7 – LIGHTING PRODUCTS

Definitions

- **39** In this Part:
 - "ANSI C78.79-2014" means ANSI standard ANSI C78.79-2014 entitled Nomenclature for Envelope Shapes Intended for Use with Electric Lamps;
 - "ANSI C81.64-2005" means ANSI standard ANSI C81.64-2005 entitled *Guidelines* and General Information for Electric Lamp Bases, Lampholders, and Gauges;
 - "CAN/CSA C239-94" means CSA standard CAN/CSA C239-94 entitled *Performance Standard for Dusk-to-Dawn Luminaires*;

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- "CAN/CSA C654-M91" means CSA standard CAN/CSA C654-M91 entitled *Fluorescent Lamp Ballast Efficacy Measurements*;
- "CAN/CSA C819-95" means CSA standard CAN/CSA C819-95 entitled *Performance of General Service Fluorescent Lamps*;
- **"CAN/CSA C861-10"** means CSA standard CAN/CSA C861-10 (R2015) entitled *Performance of self-ballasted compact fluorescent lamps and ballasted adapters*;
- "CAN/CSA C861-95" means CSA standard CAN/CSA C861-95 entitled Performance of Compact Fluorescent Lamps and Ballasted Adapters;
- **"CIE"** means the Commission internationale de l'éclairage or International Commission on Illumination;
- "CIE 13.3-1995" means CIE standard CIE 13.3-1995 entitled Method of Measuring and Specifying Colour Rendering Properties of Light Sources;
- "compact fluorescent lamp" means a self-ballasted compact fluorescent lamp that incorporates a screwbase;
- "CRI" means colour rendering index;
- "dusk-to-dawn area luminaire" means a 120 volt input, 60 Hz luminaire that has a photocell controller and provides automatic dusk-to-dawn area illumination;
- "fluorescent lamp ballast for a 120 volt input" means a fluorescent lamp ballast that is designed
 - (a) for a 120 volt input, and
 - (b) to operate F32T8 rapid-start fluorescent lamps that have a CRI of greater than 75;
- **"fluorescent lamp ballast other than for a 120 volt input"** means a fluorescent lamp ballast in a fluorescent luminaire installed in an industrial, a commercial or a residential location, but does not include a fluorescent lamp ballast for a 120 volt input;
- **"general service incandescent lamp"** has the same meaning as "general service lamp" in section 433 (1) [*definition of general service lamp*] of the federal regulation but does not include a lamp described in section 434 (2) (a) [*limits*] of that regulation;
- "general service LED lamp" means a lamp that provides functional illumination, is screw-based and has
 - (a) a luminous flux of at least 310 lm but not more than 2 600 lm,
 - (b) a nominal voltage of at least 110 volts but not more than 130 volts or a nominal voltage range that lies at least partially between those voltages, and
 - (c) a light source that comes from light-emitting diodes,

but does not include a lamp described in any of paragraphs (a), (c) to (h), (k) to (o) or (q) of the definition of "general service lamp" in section 433 (1) [definition of general service lamp] of the federal regulation;

- "IES" means the Illuminating Engineering Society;
- **"IES LM-45-15"** means IES standard IES LM-45-15 entitled *IES Approved Method* for the Electrical and Photometric Measurement of General Service Incandescent Filament Lamps;
- **"IES LM-49-12"** means IES standard IES LM-49-12 entitled *IES Approved Method For Life Testing of Incandescent Filament Lamps*;
- **"IES LM-65-14"** means IES standard IES LM-65-14 entitled *IES Approved Method for Life Testing of Single-Based Fluorescent Lamps*;
- **"IES LM-79-08"** means IES standard IES LM-79-08 entitled *IES Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products;*
- **"IES LM-84-14"** means IES standard IES LM-84-14 entitled *IES Approved Method* for Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires;
- **"IES TM-28-14"** means IES standard IES TM-28-14 entitled *Projecting Long-Term Luminous Flux Maintenance of LED Lamps and Luminaires*;
- **"modified spectrum lamp"** has the same meaning as in section 424 [*definitions*] of the federal regulation;
- "small diameter directional lamp" means a lamp that is non-tubular and has
 - (a) a diameter of not more than 57 mm,
 - (b) at least 80% of light output within a solid angle of π steradians,
 - (c) a base type of E26, G4, GU5.3, GU10 or GX5.3, and
 - (d) a luminous flux of more than 150 lm,
 - but does not include a lamp excluded under section 39.1. [am. B.C. Reg. 29/2018, Sch. 1, s. 21.]

Excluded small diameter directional lamps

- **39.1** For the purpose of the definition of "small diameter directional lamp" in section 39, the following are excluded:
 - (a) a multifaceted reflector shape lamp that has
 - (i) a first number symbol equal to 16,
 - (ii) a nominal input voltage of 12 volts, and
 - (iii) a luminous flux of 800 lm or more;
 - (b) a reflector lamp that
 - (i) has a first number symbol less than 16, and
 - (ii) does not have a screw base type of E26/E24, E26d, E26/50x39, E26/53x39, E29/28, E29/53x39, E39, E39d, EP39 or EX39;
 - (c) a multifaceted reflector shape lamp that is designed and marketed for a specialty application that has a rated life of not more than 300 hours.[en. B.C. Reg. 29/2018, Sch. 1, s. 22.]

Part 7 – Lighting Products

Label exemption for certain lamps compliant with federal Act

- **39.2** An energy efficiency verification label is not required for an energy device that is a compact fluorescent lamp, general service incandescent lamp or general service LED lamp if, in respect of the energy device,
 - (a) either of the following applies:
 - (i) the information required under section 5 (1) [information to be provided by dealers] of the federal Act has been provided to the federal minister;
 - (ii) the manufacturer of the energy device provides a copy of the information required under section 5 (1) of the federal Act to an inspector designated under section 3 [inspection and testing] of the Act, and
 - (b) the manufacturer affixes to the packaging of the energy device the following information about the energy device:
 - (i) the light output of the energy device in lumens;
 - (ii) the power consumption of the energy device in watts;
 - (iii) the CRI of the energy device;
 - (iv) the rated life of the energy device in hours.
 - [en. B.C. Reg. 29/2018, Sch. 1, s. 22.]

Additional efficiency standard for fluorescent lamp ballasts

- **40** (1) This section applies to a fluorescent lamp ballast for a 120 volt input, or a fluorescent lamp ballast other than for a 120 volt input, that has
 - (a) an application of operation set out in column 1 of the table in section 42 *[minimum ballast efficacy factors for fluorescent lamp ballasts]*,
 - (b) a ballast input voltage set out in column 2 of the table in section 42, opposite the application of operation, and
 - (c) the total nominal lamp wattage set out in column 3 of the table in section 42, opposite the ballast input voltage.
 - (2) In addition to meeting the efficiency standards set out in column 4 in item 1 or 2, as applicable, of the efficiency standards table in section 41, a fluorescent lamp ballast to which this section applies must also meet or exceed the minimum ballast efficacy factor that, in the table in section 42, is set out in column 4 opposite the applicable ballast input voltage set out in column 2.

ENERGY EFFICIENCY ACT ENERGY EFFICIENCY STANDARDS REGULATION

Part 7 – Lighting Products

Efficiency standards for lighting products

41 The following efficiency standards table sets out the efficiency standards for energy devices that are lighting products:

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	Fluorescent lamp ballasts other than for a 120 volt input	Jan 1, 2009	Products manufactured on or after Jan 2, 2009	Must have a power factor ≥ 0.9	CAN/CSA C654-M91
2	Fluorescent lamp ballasts for a 120 volt input	Jan 1, 2009	Products manufactured on or after Jan 2, 2009	Must have a power factor ≥ 0.5	CAN/CSA C654-M91
3	Compact fluorescent lamps	April 1, 1996	Products manufactured between Apr 2, 1996 and Jan 1, 2020	The standard set out in Clause 6.6 of CAN/CSA C861-95	CAN/CSA C861-95
3.1	Compact fluorescent lamps	Jan 1, 2020	Products manufactured on or after Jan 2, 2020	Efficacy must be \geq 45 lm/W CRI must be \geq 80 for lamps other than modified spectrum lamps CRI must be \geq 75 for modified spectrum lamps Must have a rated life of at least 1 000 hours	The procedures set out in all of the following: (a) CAN/CSA C861-10; (b) CIE 13.3-1995; (c) IES LM-65-14.
4	Dusk-to-dawn area Iuminaires	Jan 1, 1996	Products manufactured on or after Jan 2, 1996	The standard set out in CAN/CSA C239-94	CAN/CSA C239-94
5	Fluorescent lamps	May 15, 1996	Products manufactured on or after May 16, 1996	The standard set out in CAN/CSA C819-95	CAN/CSA C819-95

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	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
6	General service incandescent lamps (for exclusions, see definition of "general service incandescent lamp" in section 39)	Jan 1, 2020	Products manufactured on or after Jan 2, 2020	Efficacy must be \geq 45 lm/W CRI must be \geq 80 for lamps other than modified spectrum lamps CRI must be \geq 75 for modified spectrum lamps Must have a rated life of at least 1 000 hours	The procedures set out in all of the following: (a) IES LM-45-15; (b) CIE 13.3-1995; (c) IES LM-49-12.
7	General service LED lamps (for exclusions, see definition of "general service LED lamp" in section 39)	Jan 1, 2020	Products manufactured on or after Jan 2, 2020	Efficacy must be \geq 45 lm/W CRI must be \geq 80 for lamps other than non- modified spectrum lamps CRI must be \geq 75 for modified spectrum lamps Must have a rated life of at least 1 000 hours	The procedures set out in all of the following: (a) IES LM-79-08; (b) CIE 13.3-1995; (c) IES LM-84-14; (d) IES TM-28-14.

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	Column 1	Column 2	Column 3	Column 4	Column 5
ltem	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
8	Small diameter directional lamps (for exclusions, see section 39.1)	Jan 1, 2020	Products manufactured on or after Jan 2, 2020	Efficacy must be \geq 45 lm/W Must have a rated life of at least 25 000 hours	The procedures set out in all of the following: (a) IES LM-79-08; (b) IES LM-84-14; (c) IES TM-28-14.

Part 7 – Lighting Products

[am. B.C. Reg. 29/2018, Sch. 1, s. 23.]

Minimum ballast efficacy factors for fluorescent lamp ballasts

42 For the purposes of section 40 *[additional efficiency standard for fluorescent lamp ballasts]*, the following table sets out the minimum ballast efficacy factors:

Column 1	Column 2	Column 3	Column 4
Application of Operation	Ballast Input Voltage	Total Nominal Lamp Wattage	Minimum Ballast Efficacy Factor
	(V)	(W)	(BEF)
One F40T12 lamp	120	40	2.29
Also for use on 40W/48T10/BS lamps	277	40	2.29
	347	40	2.22
One F34T12 lamp	120	34	2.61
	277	34	2.61
	347	34	2.53
Two F40T12 lamps	120	80	1.17
Also for use on 40W/48T10/BS Jamps	277	80	1.17
	347	80	1.12
Two F34T12 lamps	120	68	1.35
	277	68	1.35
	347	68	1.29
Two F96T12(IS) lamps	120	150	0.63
Also for use on 60W//96T12/IS Jamps	277	150	0.63
	347	150	0.62
Two F96T12(ES) lamps	120	120	0.77
	277	120	0.77
	347	120	0.76

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Column 1	Column 2	Column 3	Column 4
Application of Operation	Ballast Input Voltage	Total Nominal Lamp Wattage	Minimum Ballast Efficacy Factor
	(V)	(W)	(BEF)
Two 110W F96T12HO lamps	120	220	0.390
	277	220	0.390
	347	220	0.380
Two F96T12HO(ES) lamps	120	190	0.42
	277	190	0.42
	347	190	0.41
Two F32T8 lamps	120	64	1.250
	277	64	1.230
	347	64	1.200

Part 8 – Electric Motors

PART 8 – ELECTRIC MOTORS

Definitions

- 43 In this Part:
 - "CAN/CSA C390-98" means CSA standard CAN/CSA C390-98 entitled *Energy Efficiency Test Methods for Three-Phase Induction Motors*;
 - "electric motor" means a machine that converts electrical power into rotational mechanical power and includes any such machine that is incorporated into any other product;
 - "enclosed motor" means an electric motor constructed in such a manner as to prevent the free exchange of air between the inside and outside of the case, but the case is not sufficiently enclosed to be termed airtight;

"explosion-proof construction" means an electric motor

- (a) for which measures have been taken to prevent the possibility of the electric motor reaching excessive temperatures or producing arcs or sparks, or
- (b) that is enclosed in a case that will withstand the explosion of any flammable gas or material that may enter the case, without being damaged and without transmitting an explosion outside of the case;

"general purpose electric motor" means

- (a) an electric motor designed for usual service conditions, as described in section 44 (1), or
- (b) an electric motor designed for unusual service conditions, as described in section 44 (2);

- "IEC" means the International Electrotechnical Commission;
- **"integral gear assembly"** means a product that is comprised of an electric motor and a gear mechanism that are combined in such a manner that
 - (a) the end bracket or mounting flange forms an integral part of both the electric motor and the gear mechanism, and
 - (b) if the electric motor and the gear mechanism are separated, only one of them remains intact;
- **"IP code"** means an alpha numeric sequence indicating the degree of protection offered by an electric motor's enclosure from foreign object insertion and water ingress, as defined in section 5.2 of MG1;
- "MG1" means NEMA Standards Publication MG1-2006, Motors and Generators;
- "NEMA" means the National Electrical Manufacturers Association;
- **"open motor"** means an electric motor with ventilating openings that permit passage of external cooling air over and around the windings of the electric motor.

General purpose electric motors

- 44 (1) An electric motor designed for usual service conditions is an electric motor that
 - (a) is designed for use under usual service conditions, as those conditions are described in MG1,
 - (b) is not restricted to a particular application or type of application, and
 - (c) meets both the standard operating requirements, as described in subsection (3), and the standard mechanical construction requirements, as described in subsection (4).
 - (2) An electric motor designed for unusual service conditions is an electric motor that
 - (a) is designed for
 - (i) use under unusual service conditions, as those conditions are described in MG1, or
 - (ii) a particular application or type of application,
 - (b) may be used for most general purpose applications, and
 - (c) meets either the standard operating requirements, as described in subsection (3), or the standard mechanical construction requirements, as described in subsection (4).
 - (3) For the purposes of subsections (1) (c) and (2) (c), the standard operating requirements for an electric motor are as follows:
 - (a) the electric motor is designed to standard horsepower and speed ratings in accordance with MG1 or IEC 60034-1:2004;

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- (b) the electric motor is rated for continuous duty operation or duty type S1, as defined in IEC standard 60034-1:2004;
- (c) the electric motor has a rated voltage of not more than 600 volts AC;
- (d) the electric motor has a rated frequency of 50/60 Hz or 60 Hz;
- (e) the electric motor is a NEMA design A, B or C as defined by MG1, or IEC design H or N as defined in IEC standard 60034-12:2007;
- (f) the electric motor is designed to operate at a single speed.
- (4) For the purposes of subsections (1) (c) and (2) (c), the standard mechanical construction requirements for an electric motor are as follows:
 - (a) the electric motor is a three-phase electric induction motor of a squirrel cage or cage type design;
 - (b) the electric motor has open or enclosed construction, including explosionproof construction;
 - (c) the electric motor is constructed to NEMA T frame or U frame dimensions, or to equivalent IEC dimensions;
 - (d) the electric motor has a 2-, 4-, 6- or 8-pole construction;
 - (e) the electric motor is of foot-mounted construction or flange-mounted construction;
 - (f) the electric motor has an IP code from 00 to 66.

Type 1 general purpose electric motors

- **45** (1) For the purposes of the efficiency standards table in section 47 [*efficiency* standards for general purpose electric motors] and the table in section 48 [nominal full load efficiency for type 1 general purpose electric motors], a general purpose electric motor is a type 1 general purpose electric motor if
 - (a) the general purpose electric motor is one of the following electric motors:
 - (i) a close-coupled pump motor;
 - (ii) a vertically-mounted solid shaft normal thrust motor;
 - (iii) a fire pump motor;
 - (iv) a NEMA design B motor with a rated size of 201 to 500 hp, or an IEC design N motor of a size of 151 to 375 kW, or
 - (b) the general purpose electric motor has one or more of the following characteristics:
 - (i) a U frame, or equivalent IEC dimensions;
 - (ii) a NEMA design C, or IEC design H;
 - (iii) a footless construction;
 - (iv) an 8-pole construction;
 - (v) an integral gear assembly.

- (2) For the purposes of the efficiency standard referred to in column 4 in item 1 of the efficiency standards table in section 47, the applicable minimum nominal full load efficiency of a type 1 general purpose electric motor is determined by using the table in section 48, as follows:
 - (a) for an open motor with a rated power set out in column 1 of the table in section 48, the applicable minimum nominal full load efficiency is the motor efficiency set out in column 2
 - (i) opposite the rated power of the open motor, and
 - (ii) in the sub-column that corresponds to the number of poles in the open motor;
 - (b) for an enclosed motor with a rated power set out in column 1 of the table in section 48, the applicable minimum nominal full load efficiency is the motor efficiency set out in column 3
 - (i) opposite the rated power of the enclosed motor, and
 - (ii) in the sub-column that corresponds to the number of poles in the enclosed motor.

Type 2 general purpose electric motors

- 46 (1) For the purposes of the efficiency standards table in section 47 [efficiency standards for general purpose electric motors] and the table in section 49 [nominal full load efficiency for type 2 general purpose electric motors], a general purpose electric motor is a type 2 general purpose electric motor if the general purpose electric motor has all of the following characteristics:
 - (a) a rated size of 1 to 200 hp, or an IEC design motor of a size of 0.746 to 150 kW;
 - (b) a 2-, 4- or 6-pole construction;
 - (c) a NEMA T frame, or IEC frame designation of 90 or above;
 - (d) a NEMA design A or B, or IEC design N;
 - (e) a standard shaft, R-shaft or S-shaft or an IEC equivalent.
 - (2) For the purposes of the efficiency standard referred to in column 4 in item 2 of the efficiency standards table in section 47, the applicable minimum nominal full load efficiency of a type 2 general purpose electric motor is determined by using the table in section 49, as follows:
 - (a) for an open motor with a rated power set out in column 1 of the table in section 49, the applicable minimum nominal full load efficiency is the motor efficiency set out in column 2
 - (i) opposite the rated power of the open motor, and
 - (ii) in the sub-column that corresponds to the number of poles in the open motor;

- (b) for an enclosed motor with a rated power set out in column 1 of the table in section 49, the applicable minimum nominal full load efficiency is the motor efficiency set out in column 3
 - (i) opposite the rated power of the enclosed motor, and
 - (ii) in the sub-column that corresponds to the number of poles in the enclosed motor.

Efficiency standards for general purpose electric motors

47 The following efficiency standards table sets out the efficiency standards for energy devices that are general purpose electric motors:

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Energy Device	Prescribed Date (s. 2 (3) (a) of Act)	Manufacturing Period	Efficiency Standard	Testing Procedure
1	Type 1 general purpose electric motors	Jan 1, 2011	Products manufactured on or after Jan 2, 2011	Nominal full load efficiency must be ≥ the applicable nominal full load efficiency set out in the table in section 48 of this regulation	CAN/CSA C390-98 All motors must be tested in a horizontal configuration
2	Type 2 general purpose electric motors	Jan 1, 2011	Products manufactured on or after Jan 2, 2011	Nominal full load efficiency must be ≥ the applicable nominal full load efficiency set out in the table in section 49 of this regulation	CAN/CSA C390-98 All motors must be tested in a horizontal configuration

Nominal full load efficiency for type 1 general purpose electric motors

48 For the purposes of the efficiency standard referred to in column 4 in item 1 of the efficiency standards table in section 47 *[efficiency standards for general purpose electric motors]*, the following table sets out the nominal full load efficiency for type 1 general purpose electric motors:

			Motor Efficiency (%)						
Colu	mn 1		Colu	mn 2			Colu	mn 3	
Rated			Open I	Motors		Enclosed Motors			
Power		Number of Poles				Ν	umber	of Pole	es
(hp)	(kW)	2	4	6	8	2 4 6 8			8
1	0.75	75.5	82.5	80.0	74.0	75.5	82.5	80.0	74.0
1.5	1.1	82.5	84.0	84.0	75.5	82.5	84.0	85.5	77.0
2	1.5	84.0	84.0	85.5	85.5	84.0	84.0	86.5	82.5
3	2.2	84.0	86.5	86.5	86.5	85.5	87.5	87.5	84.0
-	3.0	84.0 86.5 86.5 86.5				85.5	87.5	87.5	84.0
5	3.7	85.5	87.5	87.5	87.5	87.5	87.5	87.5	85.5

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		Motor Efficiency (%)							
Colu	mn 1		Colu	mn 2			Colu	mn 3	
Rated Power		N	Open ∣ umber	Motors of Pole	es	Enclosed Motors			
(hp)	(kW)	2	4	6	8	2	4	6	8
-	4.0	85.5	87.5	87.5	87.5	87.5	87.5	87.5	85.5
7.5	5.5	87.5	88.5	88.5	88.5	88.5	89.5	89.5	85.5
10	7.5	88.5	89.5	90.2	89.5	89.5	89.5	89.5	88.5
15	11	89.5	91.0	90.2	89.5	90.2	91.0	90.2	88.5
20	15	90.2	91.0	91.0	90.2	90.2	91.0	90.2	89.5
25	19	91.0	91.7	91.7	90.2	91.0	92.4	91.7	89.5
30	22	91.0	92.4	92.4	91.0	91.0	92.4	91.7	91.0
40	30	91.7	93.0	93.0	91.0	91.7	93.0	93.0	91.0
50	37	92.4	93.0	93.0	91.7	92.4	93.0	93.0	91.7
60	45	93.0	93.6	93.6	92.4	93.0	93.6	93.6	91.7
75	55	93.0	94.1	93.6	93.6	93.0	94.1	93.6	93.0
100	75	93.0	94.1	94.1	93.6	93.6	94.5	94.1	93.0
125	90	93.6	94.5	94.1	93.6	94.5	94.5	94.1	93.6
150	110	93.6	95.0	94.5	93.6	94.5	95.0	95.0	93.6
-	132	94.5	95.0	94.5	93.6	95.0	95.0	95.0	94.1
200	150	94.5	95.0	94.5	93.6	95.0	95.0	95.0	94.1
250	185	94.5	95.4	95.4	94.5	95.4	95.0	95.0	94.5
300	225	95.0	95.4	95.4	-	95.4	95.4	95.0	-
350	260	95.0	95.4	95.4	-	95.4	95.4	95.0	-
400	300	95.4	95.4	-	-	95.4	95.4	-	-
450	335	95.8	95.8	-	-	95.4	95.4	-	-
500	375	95.8	95.8	-	-	95.4	95.8	-	-

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Nominal full load efficiency for type 2 general purpose electric motors

49 For the purposes of the efficiency standard referred to in column 4 in item 2 of the efficiency standards table in section 47 *[efficiency standards for general purpose electric motors]*, the following table sets out the nominal full load efficiency for type 2 general purpose electric motors:

			Motor Efficiency (%)					
Colu	mn 1	С	olumn	2	Column 3			
Ra ^t Pov	ted wer	Open Motors Enclosed Mo			otors			
		Num	ber of l	er of Poles		Number of Poles		
(hp)	(kW)	2	4	6	2	4	6	
1	0.75	77.0	85.5	82.5	77.0	85.5	82.5	
1.5	1.1	84.0	86.5	86.5	84.0	86.5	87.5	
2	1.5	85.5	86.5	87.5	85.5	86.5	88.5	

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			Mot	or Effi	ciency	(%)		
Colu	mn 1	Column 2			Column 3			
Rated Power		Op Numl	en Mot ber of I	ors Poles	Enclosed Motors Number of Poles			
(hp)	(kW)	2	4	6	2	4	6	
3	2.2	85.5	89.5	88.5	86.5	89.5	89.5	
-	3.0	86.5	89.5	89.5	88.5	89.5	89.5	
5	3.7	86.5	89.5	89.5	88.5	89.5	89.5	
-	4.0	86.5	89.5	89.5	88.5	89.5	89.5	
7.5	5.5	88.5	91.0	90.2	89.5	91.7	91.0	
10	7.5	89.5	91.7	91.7	90.2	91.7	91.0	
15	11	90.2	93.0	91.7	91.0	92.4	91.7	
20	15	91.0	93.0	92.4	91.0	93.0	91.7	
25	19	91.7	93.6	93.0	91.7	93.6	93.0	
30	22	91.7	94.1	93.6	91.7	93.6	93.0	
40	30	92.4	94.1	94.1	92.4	94.1	94.1	
50	37	93.0	94.5	94.1	93.0	94.5	94.1	
60	45	93.6	95.0	94.5	93.6	95.0	94.5	
75	55	93.6	95.0	94.5	93.6	95.4	94.5	
100	75	93.6	95.4	95.0	94.1	95.4	95.0	
125	90	94.1	95.4	95.0	95.0	95.4	95.0	
150	110	94.1	95.8	95.4	95.0	95.8	95.8	
-	132	95.0	95.8	95.4	95.4	96.2	95.8	
200	150	95.0	95.8	95.4	95.4	96.2	95.8	

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