

2018 International Energy Conservation Code Errata List

C202

Errata	IECC Chapter 2 CE Commercial Definitions
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st and 2nd Printings

Section/Table/Figure Number: Section C202

Posted: September 17, 2018

Correction:

APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests or furnishing inspection services, or furnishing product certification ~~research reports~~, where such agency has been approved by the *code official*.

Correlation/Historical Notes: The first and second printings do not reflect the final action of the membership which approved this change as modified.

Table C402.3

Errata	2018 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 4th printing

Section/Table/Figure Number: Table C402.3

Posted: August 5, 2021

Correction:

TABLE C402.3
MINIMUM ROOF REFLECTANCE AND EMITTANCE OPTIONS^a

Three-year-aged solar reflectance index ^b of <u>0.55</u> and 3-year aged thermal emittance ^c of 0.75
Three-year-aged solar reflectance index ^d of 64

- The use of area-weighted averages to comply with these requirements shall be permitted. Materials lacking 3-year-aged tested values for either solar reflectance or thermal emittance shall be assigned both a 3-year-aged solar reflectance in accordance with Section C402.3.1 and a 3-year-aged thermal emittance of 0.90.
- Aged solar reflectance tested in accordance with ASTM C1549, ASTM E903 or ASTM E1918 or CRRC-S100.
- Aged thermal emittance tested in accordance with ASTM C1371 or ASTM E408 or CRRC-S100.
- Solar reflectance index (SRI) shall be determined in accordance with ASTM E1980 using a convection coefficient of 2.1 Btu/h × ft² × °F (12 W/m² × K). Calculation of aged SRI shall be based on aged tested values of solar reflectance and thermal emittance.

Correlation Notes: CE121-13

C403.3.2.1

Errata IECC Chapter 4 CE Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st and 2nd Printings

Section/Table/Figure Number: Section C403.3.2.1 – Equation 4-7

Posted: March 25, 2019

Correction:

C403.3.2.1 Water-cooled centrifugal chilling packages (Mandatory). Equipment not designed for operation at AHRI Standard 550/590 test conditions of 44°F (7°C) leaving chilled-water temperature and 2.4 gpm/ton evaporator fluid flow and 85°F (29°C) entering condenser water temperature with 3 gpm/ton (0.054 l/s • kW) condenser water flow shall have maximum fullload kW/ton (FL) and part-load ratings requirements adjusted using Equations 4-6 and 4-7.

$$FL_{adj} = FL/K_{adj} \quad \text{(Equation 4-6)}$$

$$PLV_{adj} = IPLV/K_{adj} \quad \text{(Equation 4-7)}$$

where:

$$K_{adj} = A \times B$$

FL = Full-load kW/ton value as specified in Table C403.3.2(7).

FL_{adj} = Maximum full-load kW/ton rating, adjusted for nonstandard conditions.

$IPLV$ = Value as specified in Table C403.3.2(7).

PLV_{adj} = Maximum $NPLV$ rating, adjusted for nonstandard conditions.

$$A = 0.00000014592 \times (LIFT)^4 - 0.0000346496 \times (LIFT)^3 + 0.00314196 \times (LIFT)^2 - 0.147199 \times (LIFT) + 3.9302$$

$$B = 0.0015 \times L_{vg}E_{vap} + 0.934$$

$$LIFT = L_{vg}Cond - L_{vg}E_{vap}$$

$L_{vg}Cond$ = Full-load condenser leaving fluid temperature (°F).

$L_{vg}E_{vap}$ = Full-load evaporator leaving temperature (°F).

The FL_{adj} and PLV_{adj} values are only applicable for centrifugal chillers meeting all of the following fullload design ranges:

1. Minimum evaporator leaving temperature: 36°F.
2. Maximum condenser leaving temperature: 115°F.
3. $20^\circ\text{F} \leq LIFT \leq 80^\circ\text{F}$.

Correlation/Historical Notes: The subtraction operational sign was left out of the definition of 'A' during production of the 2018 edition. An editorial error.

C403.3.2.2

Errata IECC Chapter 4 CE Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section C403.3.2.2

Posted: June 8, 2018

Correction:

C403.3.2.2 Positive displacement (air- and watercooled) chilling packages (Mandatory). Equipment with a leaving fluid temperature higher than 32°F (0°C) and watercooled positive displacement chilling packages with a condenser leaving fluid temperature below 115°F (46°C) shall meet the requirements of Table C403.3.2(7) when tested or certified with water at standard rating conditions, in accordance with the referenced test procedure.

Correlation/Historical Notes: This section was part of a reorganization of Section C403 approved by CE119-16. Prior to the reorganization this was Section 403.2.3.2. All subsections of C403.2 were part of the mandatory provisions. This section was not properly labeled when the code was assembled.

C403.7

Errata IECC Chapter 4 [CE] Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section C403.7

Posted: June 8, 2018

Correction:

C403.7 Ventilation and exhaust systems. (Mandatory) In addition to other requirements of Section C403 applicable to the provision of ventilation air or the exhaust of air, ventilation and exhaust systems shall be in accordance with Sections C403.7.1 through C403.7.7.

Correlation/Historical Notes: This section was created as part of a reorganization of Section C403 approved by CE119-16. The section is a lead in to seven provisions which were mandatory before the reorganization and are labeled as mandatory in the 2018 code. The lead section to Sections C403.7.1 through C403.7.7 is also mandatory. This section was not properly labeled when the code was assembled.

C403.8.4

Errata IECC Chapter 4 [CE] Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section C403.8.4

Posted: June 8, 2018

Correction:

C403.8.4 Fractional hp fan motors (Mandatory). Motors for fans that are not less than $\frac{1}{12}$ hp (~~0.082~~ 0.062 kW) and less than 1 hp (0.746 kW) shall be electronically commutated motors or shall have a minimum motor efficiency of 70 percent, rated in accordance with DOE 10 CFR 431. These motors shall have the means to adjust motor speed for either balancing or remote control. The use of belt-driven fans to sheave adjustments for airflow balancing instead of a varying motor speed shall be permitted.

Correlation/Historical Notes: Incorrect conversion to kW.

C403.9.1

Errata IECC Chapter 4 [CE] Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section C403.9.1

Posted: August 13, 2018

Correction:

C403.9.1 Fan speed control. Each fan system powered by an individual motor or array of motors with connected power, including the motor service factor, totaling 5 hp (3.7 kW) or more shall have controls and devices configured to automatically modulate the fan speed to control the leaving fluid temperature or condensing temperature and pressure of the heat rejection device. Fan motor power input shall be not more than 30 percent of design wattage ~~or~~ at 50 percent of the design airflow.

Exceptions:

1. Fans serving multiple refrigerant or fluid cooling circuits.
2. Condenser fans serving flooded condensers.

Correlation/Historical Notes: Corrected to text as approved in CE165-16.

C403.11

Errata IECC Chapter 4 [CE] Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section C403.11

Posted: June 8, 2018

Correction:

C403.11 Construction of HVAC system elements (Mandatory). Ducts, plenums, piping and other elements that are part of an HVAC system shall be constructed and insulated in accordance with Sections C403.11.1 through C403.11.3.1.

C403.11.1 Duct and plenum insulation and sealing (Mandatory). Supply and return

C403.11.2 Duct construction (Mandatory). Ductwork shall

C403.11.2.1 Low-pressure duct systems (Mandatory). Longitudinal and

C403.11.2.2 Medium-pressure duct systems (Mandatory). Ducts and plenums

C403.11.2.3 High-pressure duct systems (Mandatory). Ducts and plenums

C403.11.3 Piping insulation (Mandatory). Piping serving as

C403.11.3.1 Protection of piping insulation (Mandatory). Piping insulation

Correlation/Historical Notes: This section was created as part of a reorganization of Section C403 approved by CE119-16. The section is a lead in to seven provisions which were mandatory before the reorganization and are labeled as mandatory in the 2018 code. The lead section to Sections C403.11.1 through C403.11.3.1 is also mandatory. This section was not properly labeled when the code was assembled.

Table C405.3.2(1)

Errata IECC Chapter 4C – Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st, 2nd and 3rd Printings

Section/Table/Figure Number: Table C405.3.2(1)

Posted: March 3, 2020

Correction:

**TABLE C405.3.2(1)
INTERIOR LIGHTING POWER ALLOWANCES:
BUILDING AREA METHOD**

Table is unchanged

- a. Where sleeping units are excluded from lighting power calculations by application of Section ~~R405.1 R404.1~~, neither the area of the sleeping units nor the wattage of lighting in the sleeping units is counted.
- b. Where dwelling units are excluded from lighting power calculations by application of ~~Section R405.1 R404.1~~, neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.
- c. Dwelling units are excluded. Neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.

Correlation Notes: The errata was a transcription error in adding footnotes to the 2018 edition. The errors occurred in both Tables C405.3.2(1) and C405.3.2(2).

Table C405.3.2(2)

Errata IECC Chapter 4C – Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st, 2nd and 3rd Printings

Section/Table/Figure Number: Table C405.3.2(2)

Posted: March 3, 2020

Correction:

TABLE C405.3.2(2)
INTERIOR LIGHTING POWER ALLOWANCES:
SPACE-BY-SPACE METHOD

Table and balance of footnotes are unchanged

- c. Where sleeping units are excluded from lighting power calculations by application of Section ~~R405.1~~ R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units is counted.
- d. Where dwelling units are excluded from lighting power calculations by application of Section ~~R405.1~~ R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.

Correlation Notes: The errata was a transcription error in adding footnotes to the 2018 edition. The errors occurred in both Tables C405.3.2(1) and C405.3.2(2).

C405.4.2(2)

Errata IECC Chapter 4 [CE] Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Table C405.4.2(2)

Posted: July 9, 2018

Correction:

**TABLE C405.4.2(2)
LIGHTING POWER ALLOWANCES FOR BUILDING EXTERIORS**

Only portion of table is shown

	LIGHTING ZONES			
	Zone 1	Zone 2	Zone 3	Zone 4
Building Entrances and Exits				
Pedestrian and vehicular entrances and exits □	14 W/linear foot of opening	14 W/linear foot of opening	21 W/linear foot of opening	21 W/linear foot of opening
Entry canopies	0.02 <u>0.20</u> W/ft ²	0.25 W/ft ²	0.4 W/ft ²	0.4 W/ft ²
Loading docks	0.35 W/ft ²	0.35 W/ft ²	0.35 W/ft ²	0.35 W/ft ²
Sales Canopies				
Free-standing and attached	0.04 <u>0.40</u> W/ft ²	0.04 <u>0.40</u> W/ft ²	0.6 W/ft ²	0.7 W/ft ²
Outdoor Sales				
Open areas (including vehicle sales lots)	0.02 <u>0.20</u> W/ft ²	0.02 <u>0.20</u> W/ft ²	0.35 W/ft ²	0.05 <u>0.50</u> W/ft ²
Street frontage for vehicle sales lots in addition to "open area" allowance □	No allowance	7 W/linear foot	7 W/linear foot	21 W/linear foot

Correlation/Historical Notes: The numbers for these six values were transposed in publication.

C406.4

Errata IECC Chapter 4 [CE] Commercial Energy Efficiency

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section C406.4

Posted: June 8, 2018

Correction:

C406.4 Enhanced digital lighting controls. Interior lighting in the building shall have the following enhanced lighting controls that shall be located, scheduled and operated in accordance with ~~Section C405.2.2~~ [Sections C405.2.1 through C405.2.3](#).

Correlation/Historical Notes: Section C406.4 was added to the 2015 edition of the code by CE337-13. In the approved change, C406.4 referenced only Section C405.2.2. Section C405.2.2 and its subsections in the 2012 code covered time switch controls, occupant (occupancy) sensors and daylight responsive controls. An unrelated change reorganized Section C405.2 and in the 2015 code and 2018 code Section C405.2.2 only addresses one of those topics. The original change should have been correlated to reference the three control requirements references in the original CE337-13. This correction makes the code consistent with CE337.13.

Table C407.5.1(1)

Errata	2018 IECC Chapter 4 COMMERCIAL ENERGY EFFICIENCY
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: All printings

Section/Table/Figure Number: Table C407.5.1(1)

Posted: November 1, 2022

Correction:

TABLE C407.5.1(1)
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS

BUILDING COMPONENT CHARACTERISTICS	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Space use classification	Same as proposed	The space use classification shall be chosen in accordance with Table C405.5.2-C405.3.2(1) or Table C405.3.2(2) for all areas of the building covered by this permit. Where the space use classification for a building is not known, the building shall be categorized as an office building.

Correlation Notes: refer to 2009 IECC Table 506.5.1(1) and 2021 IECC Table C407.4.1(1) references.

C502.2.5

Errata	2018 IECC Chapter 5 EXISTING BUILDINGS
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: all printings

Section/Table/Figure Number: C502.2.5

Posted: July 22, 2022

Correction:

C502.2.5 Pools and inground permanently installed spas. New pools and inground permanently installed spas shall comply with Section C404.~~409~~.

Correlation Notes: No list

6 CE

Errata IECC Chapter 6 [CE] Referenced Standards

Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Chapter 6CE

Posted: July 9, 2018

Correction:

AHRI

Air-Conditioning, Heating, & Refrigeration Institute
2111 Wilson Blvd, Suite 500
Arlington, VA 22201

**ISO/AHRI/ASHRAE 13256-1 (~~2017~~ [1998 RA2014](#)): Water-to-Air and Brine-to-Air Heat Pumps—
Testing and Rating for Performance**

Table C403.3.2(2)

**ISO/AHRI/ASHRAE 13256-2 (~~2017~~ [1998 RA2014](#)): Water-to-Water and Brine-to-Water Heat
Pumps—Testing and Rating for Performance**

Table C403.3.2(2)

ASHRAE

ASHRAE
1791 Tullie Circle NE
Atlanta, GA 30329

**ISO/AHRI/ASHRAE 13256-1 (~~2017~~ [1998 RA2014](#)): Water-to-Air and Brine-to-Air Heat Pumps—
Testing and Rating for Performance**

Table C403.3.2(2)

**ISO/AHRI/ASHRAE 13256-2 (~~2017~~ [1998 RA2014](#)): Water-to-Water and Brine-to-Water Heat
Pumps—Testing and Rating for Performance**

Table C403.3.2(2)

ISO

International Organization for Standardization
Chemin de Blandonnet 8, CP 401, 1214 Vernier
Geneva, Switzerland

**ISO/AHRI/ASHRAE 13256-1 (~~2017~~ [1998 RA2014](#)): Water-to-Air and Brine-to-Air Heat Pumps—
Testing and Rating for Performance**

Table C403.3.2(2)

**ISO/AHRI/ASHRAE 13256-2 (~~2017~~ [1998 RA2014](#)): Water-to-Water and Brine-to-Water Heat
Pumps—Testing and Rating for Performance**

Table C403.3.2(2)

Correlation/Historical Notes: The 2017 edition of these standards were not available by December 1, 2017.

R401.2.1

Errata	2018 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: all printings

Section/Table/Figure Number: R401.2.1

Posted: December 9, 2022

Correction:

R401.2.1 Tropical zone. *Residential buildings* in the tropical zone at elevations less than 2,400 feet (731.5 m) above sea level shall be deemed to be in compliance with this chapter provided that the following conditions are met:

1. Not more than one-half of the occupied space is air conditioned.
2. The occupied space is not heated.
3. Solar, wind or other renewable energy source supplies not less than 80 percent of the energy for service water heating.
4. Glazing in *conditioned spaces* has a *solar heat gain coefficient* of less than or equal to 0.40, or has an overhang with a projection factor equal to or greater than 0.30.
5. Permanently installed lighting is in accordance with Section R404.
6. The exterior roof surface complies with one of the options in Table C402.3 or the roof or ceiling has insulation with an *R-value* of R-15 or greater. Where attics are present, attics above the insulation are vented and attics below the insulation are unvented.
7. Roof surfaces have a slope of not less than one-fourth unit vertical in 12 units horizontal (~~2+~~ percent slope). The finished roof does not have water accumulation areas.
8. Operable fenestration provides a ventilation area of not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.
9. Bedrooms with *exterior walls* facing two different directions have operable fenestration on *exterior walls* facing two directions.
10. Interior doors to bedrooms are capable of being secured in the open position.
11. A ceiling fan or ceiling fan rough-in is provided for bedrooms and the largest space that is not used as a bedroom.

Correlation Notes:

R402.1.1

Errata	IECC Chapter 4 [RE] Residential Energy Efficiency
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section R402.1.1

Posted: August 13, 2018

Correction:

R402.1.1 Vapor retarder. Wall assemblies in the *building thermal envelope* shall comply with the vapor retarder requirements of Section R702.7 of the *International Residential Code* or Section ~~4405.3~~ 1404.3 of the *International Building Code*, as applicable.

Correlation/Historical Notes: Changes in numbering between the 2015 and 2018 IBC were not correlated here.

R402.3.4

Errata	IECC Chapter 4 [RE] Residential Energy Efficiency
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section R402.3.4

Posted: June 8, 2018

Correction:

R402.3.4 Opaque door exemption. One side-hinged opaque door assembly not greater than 24 square feet (2.22 m²) in area shall be exempt from the *U*-factor requirement in Section ~~R402.1.4~~ R402.1.2. This exemption shall not apply to the *U*-factor alternative in Section R402.1.4 and the Total UA alternative in Section R402.1.5.

Correlation/Historical Notes: From the 2012 edition to the 2015 edition of the code, the provisions cited in this section were renumbered. The correlation to the new section numbers was in error in the 2015 edition and not corrected for the first printing of the 2018.

R405.6.1

Errata	2018 IECC Chapter 4 RESIDENTIAL ENERGY EFFICIENCY
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: all printings

Section/Table/Figure Number: R405.6.1

Posted: June 24, 2021

Correction:

R405.6.1 Minimum capabilities.

Calculation procedures used to comply with this section shall be software tools capable of calculating the annual energy consumption of all building elements that differ between the *standard reference design* and the *proposed design* and shall include the following capabilities:

1. Computer generation of the *standard reference design* using only the input for the *proposed design*. The calculation procedure shall not allow the user to directly modify the building component characteristics of the *standard reference design*.
2. Calculation of whole-building (as a single zone) sizing for the heating and cooling equipment in the *standard reference design* residence in accordance with [Section R403.67](#).
3. Calculations that account for the effects of indoor and outdoor temperatures and part-load ratios on the performance of heating, ventilating and air-conditioning equipment based on climate and equipment sizing.
4. Printed *code official* inspection checklist listing each of the *proposed design* component characteristics from [Table R405.5.2\(1\)](#) determined by the analysis to provide compliance, along with their respective performance ratings such as *R*-value, *U*-factor, SHGC, HSPF, AFUE, SEER and EF.

Correlation Notes: EC108-09/10

R502.1.1.3

Errata	IECC Chapter 5 [RE] Existing Buildings
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Code/Standard: 2018 International Energy Conservation Code

Applies to following Printings: 1st Printing

Section/Table/Figure Number: Section R502.1.1.3

Posted: August 20, 2018

Correction:

R502.1.1.3 Service hot water systems. New service hot water systems that are part of the *addition* shall comply with Section ~~R403.4.~~[R403.5.](#)

Correlation/Historical Notes: Simply an incorrect reference. Section R503.1.3 which addresses alterations to service water systems references R403.5.