

WAC 51-11C-600000 Chapter 6 [CE]—Referenced standards. This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section C106.

AAMA	American Architectural Manufacturers Association 1827 Walden Office Square Suite 550 Schaumburg, IL 60173-4268		
Standard reference number	Title		Referenced in code section number
AAMA/WDMA/CSA 101/I.S.2/A C440—17	North American Fenestration Standard/ Specifications for Windows, Doors and Unit Skylights	.....	Table C402.4.1.1.2
AHAM	Association of Home Appliance Manufacturers 1111 19th Street, N.W., Suite 402 Washington, D.C. 20036		
Standard reference number	Title		Referenced in code section number
ANSI/AHAM RAC-1—2008	Room Air Conditioners	.....	Table C403.3.2 (4)
AHAM HRF-1—2017	Energy, Performance and Capacity of Household Refrigerators, Refrigerator-Freezers and Freezers	.....	Table C410.1(1)
AHRI	Air Conditioning, Heating, and Refrigeration Institute 4100 North Fairfax Drive, Suite 200 Arlington, VA 22203		
Standard reference number	Title		Referenced in code section number
ISO/AHRI/ASHRAE 5801—2017	Fans - Performance Testing Using Standardized Airways	.....	C403.8.1.1
ISO/AHRI/ASHRAE 13256-1 (2017)	Water-source Heat Pumps - Testing and Rating for Performance - Part 1: Water-to-air and Brine-to-air Heat Pumps	.....	Table C403.3.2 (14)
ISO/AHRI/ASHRAE 13256-2 (2017)	Water-source Heat Pumps - Testing and Rating for Performance - Part 2: Water-to-water and Brine-to-water Heat Pumps	.....	Table C403.3.2 (14)
210/240—2017 and 2023	Performance Rating of Unitary Air Conditioning and Air-source Heat Pump Equipment	.....	Table C403.3.2(1), Table C403.3.2(2)
310/380—2017	Standard for Packaged Terminal Air Conditioners and Heat Pumps	.....	Table C403.3.2 (4)
340/360—2018	Commercial and Industrial Unitary Air-conditioning and Heat Pump Equipment	.....	Table C403.3.2(1), Table C403.3.2(2)
365—2009	Commercial and Industrial Unitary Air-conditioning Condensing Units	.....	Table C403.3.2(1)
390—2015	Performance Rating of Single Package Vertical Air Conditioners and Heat Pumps	.....	Table C403.3.2 (4)

400—2015	Liquid to Liquid Heat Exchangers with Addendum 2	.....	C403.3.2
430—2020	Performance Rating of Central Station Air-Handling Unit Supply Fans	.....	C403.8.1.1
440—19	Room Fan Coil	.....	C403.8.1.1, C403.10.3
460—05	Performance Rating Remote Mechanical Draft Air-cooled Refrigerant Condensers	.....	Table C403.3.2 (7)
550/590—2018	Water Chilling Packages Using the Vapor Compression Cycle—with Addenda	.....	C403.3.2.3, Table C403.3.2 (3), Table C403.3.2(15)
560—2018	Absorption Water Chilling and Water-heating Packages	.....	Table C403.3.2 (3)
910—2014	Performance Rating of Indoor Pool Dehumidifiers	.....	Table C403.3.2(11)
920—2015	Performance Rating of DX-Dedicated Outdoor Air System Units	.....	C202, Table C403.3.2 (12), Table C403.3.2 (13)
1160—2014	Performance Rating of Heat Pump Pool Heaters	.....	Table C404.2, C404.11.1
1200—2013	Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets	.....	C410.1, Table C410.1(1), Table C410.1(2)
1230—2014	Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment (with Addendum 1)	.....	Table C403.3.2(9)
1250—2014	Standard for Performance Rating in Walk-in Coolers and Freezers	.....	Table C410.2.1(3)
AMCA	Air Movement and Control Association International 30 West University Drive Arlington Heights, IL 60004-1806		
Standard reference number	Title		Referenced in code section number
205—12	Energy Efficiency Classification for Fans	.....	C403.8.3
208—2018	Calculation of the Fan Energy Index	.....	C403.8.1.1, C403.8.3
210—2016	Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating	.....	C403.8.1.1
220—19	Laboratory Methods for Testing Air Curtain Units for Aerodynamic Performance Rating	.....	C402.5.7
230—15	Laboratory Methods of Testing Air Circulating Fans for Rating and Certification	.....	C403.9
500D—18	Laboratory Methods for Testing Dampers for Rating	.....	C402.4.5.1, C402.4.5.2
ANSI	American National Standards Institute 25 West 43rd Street Fourth Floor New York, NY 10036		
Standard reference number	Title		Referenced in code section number
ANSI/AMCA 208-2018	Calculation of the Fan Energy Index	.....	C403.8.1.1
ANSI/AMCA 210-16/ ASHRAE 51-16	Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating	.....	C403.8.1.1
ANSI/ASME A17.1—2010	Safety code for elevators and escalators	.....	C405.12.1
ANSI/CTA 2045-A—2018	Modular Communications Interface for Energy Management	.....	C404.14

ANSI/CTA 2045-B—2021	Modular Communications Interface for Energy Management	.....	C404.14
Z21.10.3/CSA 4.3—17	Gas Water Heaters, Volume III—Storage Water Heaters with Input Ratings Above 75,000 Btu per Hour, Circulating Tank and Instantaneous	.....	Table C404.2
Z21.47/CSA 2.3—16	Gas-fired Central Furnaces	.....	Table C403.3.2 (5)
Z83.8/CSA 2.6—16	Gas Unit Heaters, Gas Packaged Heaters, Gas Utility Heaters and Gas-fired Duct Furnaces	.....	Table C403.3.2 (5)
APSP	The Association of Pool and Spa Professionals 2111 Eisenhower Avenue Alexandria, VA 22314		
Standard reference number	Title		Referenced in code section number
14—2019	American National Standards for Portable Electric Spa Efficiency	.....	C404.12
ASABE	American Society of Agricultural and Biological Engineers 2950 Niles Road St. Joseph, MI 49085		
Standard reference number	Title		Referenced in code section number
S640—2017	Quantities and Units of Electromagnetic Radiation for Plants (Photosynthetic Organisms)	.....	C405.3
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, N.E. Atlanta, GA 30329-2305		
Standard reference number	Title		Referenced in code section number
ANSI/ASHRAE/ACCA Standard 127-2007	Method of Testing for Rating Computer and Data Processing Room Unitary Air Conditioners	.....	C403.5
Standard 183— RA2017	Peak Cooling and Heating Load Calculations in Buildings, Except Low-rise Residential Buildings	.....	C403.1.2
ASHRAE—2020	ASHRAE HVAC Systems and Equipment Handbook— 2020	.....	C403.1.2
ISO/AHRI/ASHRAE 13256-1 (2012)	Water-source Heat Pumps—Testing and Rating for Performance—Part 1: Water-to-air and Brine-to-air Heat Pumps	.....	Table C403.3.2 (14)
ISO/AHRI/ASHRAE 13256-2 (2012)	Water-source Heat Pumps—Testing and Rating for Performance—Part 2: Water-to-water and Brine-to-water Heat Pumps	.....	Table C403.3.2 (14)
90.1—2019	Energy Standard for Buildings Except Low-rise Residential Buildings (ANSI/ASHRAE/IESNA 90.1— 2019)(with addendum af)	.....	Table C402.1.3, Table C402.1.4, C406.2
90.4—2019	Energy Standard for Data Centers (with Addenda a, b, d, e)	.....	C403.1.3
146—2011	Testing and Rating Pool Heaters	.....	Table C404.2

ASME	American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990	
Standard reference number	Title	Referenced in code section number
ASME A17.1/CSA B44—2019	Safety Code for Elevators and Escalators	C405.9.2
BPVC Section IV-2021	Boiler and Pressure Vessel Code, Section IV—Rules for Construction of Heating Boilers	C404.14
BPVC Section X-2021	Boiler and Pressure Vessel Code, Section X—Fiber-Reinforced Plastic Pressure Vessels	C404.14
ASTM	ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2859	
Standard reference number	Title	Referenced in code section number
C 90—206A	Specification for Load-bearing Concrete Masonry Units	Table C402.1.3
C518—17	Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	Table C403.10.1.1
C1363—11	Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus	C303.1.4.1, Table C402.1.4
C1363—11	Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus	C303.1.4.1, Table C402.1.4, C402.2.7
C 1371—15	Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emisometers	Table C402.4
C 1549—09	Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using A Portable Solar Reflectometer	Table C402.4
D 1003—13	Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics	C402.4.2.2
E 283—04 (2012)	Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen	C402.5.8
E 408—13	Test Methods for Total Normal Emittance of Surfaces Using Inspection-meter Techniques	Table C402.3
E 779—2018	Standard Test Method for Determining Air Leakage Rate by Fan Pressurization	C402.5.1.2.3
E 903—12	Standard Test Method Solar Absorptance, Reflectance and Transmittance of Materials Using Integrating Spheres (Withdrawn 2005)	Table C402.4
E 1677—11	Standard Specification for an Air-retarder (AR) Material or System for Low-rise Framed Building Walls	C402.5.1.2.2
E 1827—2011 (2017)	Standard Test Methods for Determining Airtightness of Building Using an Orifice Blower Door	C402.5.2, C402.5.3

E 1918—06 (2015)	Standard Test Method for Measuring Solar Reflectance of Horizontal or Low-sloped Surfaces in the Field	.....	Table C402.4
E 1980—11	Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-sloped Opaque Surfaces	.....	Table C402.2.1.1
E 2178—13	Standard Test Method for Air Permanence of Building Materials	.....	C402.4
E 2357—11	Standard Test Method for Determining Air Leakage of Air Barrier Assemblies	.....	C402.5.1.2.2
F 1281—2017	Specification for Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL_PEX) Pressure Pipe	.....	Table C404.5.2.1
CSA	Canadian Standards Association 5060 Spectrum Way Mississauga, Ontario, Canada L4W 5N6		
Standard reference number	Title		Referenced in code section number
AAMA/WDMA/CSA 101/I.S.2/A440—11	North American Fenestration Standard/ Specification for Windows, Doors and Unit Skylights	.....	Table C402.4.2
CSA B55.1—2015	Test Method for Measuring Efficiency and Pressure Loss of DWHR Units	.....	C404.10
CSA B55.2—2015	Drain Water Heat Recovery Units	.....	C404.10
CTA	Consumer Technology Association 1919 S Eads Street Arlington, VA 22202		
Standard reference number	Title		Referenced in code section number
ANSI/CTA 2045-A—2018	Modular Communications Interface for Energy Management	.....	C404.14
ANSI/CTA 2045-B—2021	Modular Communications Interface for Energy Management	.....	C404.14
CTI	Cooling Technology Institute 2611 FM 1960 West, Suite A-101 Houston, TX 77068		
Standard reference number	Title		Referenced in code section number
ATC 105—2019	Acceptance Test Code for Water Cooling Tower	.....	Table C403.3.2(7)
ATC 105DS—2018	Acceptance Test Code for Dry Fluid Coolers	.....	Table C403.3.2(7)
ATC 105S—11	Acceptance Test Code for Closed Circuit Cooling Towers	.....	Table C403.3.2(7)
ATC 106—11	Acceptance Test Code for Mechanical Draft Evaporative Vapor Condensers	.....	Table C403.3.2(7)
STD 201—17	Standard for Certification of Water Cooling Towers Thermal Performances	.....	Table C403.3.2(7)
DASMA	Door and Access Systems Manufacturers Association 1300 Sumner Avenue Cleveland, OH 44115-2851		
Standard reference number	Title		Referenced in code section number

105—17	Test Method for Thermal Transmittance and Air Infiltration of Garage Doors	.....	Table C402.4.2
DOE	U.S. Department of Energy c/o Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402-9325		
Standard reference number	Title		Referenced in code section number
10 C.F.R., Part 430—2015	Energy Conservation Program for Consumer Products: Test Procedures and Certification and Enforcement Requirement for Plumbing Products; and Certification and Enforcement Requirements for Residential Appliances; Final Rule	.....	Table C403.3.2(1), Table C403.3.2(2), Table C403.3.2(5), Table C403.3.2(6), Table C403.3.2(14), Table C404.2
10 C.F.R., Part 431—2015	Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures and Efficiency Standards; Final Rules	.....	Table C403.3.2(6), C403.8.4, C403.11, Table C403.11, C403.11.2, C405.7, Table C405.7, C405.8, Table C405.8(1), Table C405.8(2), Table C405.8(3)
HVI	Home Ventilating Institute 1740 Dell Range Blvd., Ste. H, PMB 450 Cheyenne, WY 82009		
Standard reference number	Title		Referenced in code section number
920—2020	Product Performance Certification Procedure Including Verification and Challenge	.....	C403.3.5.1, C403.3.6
IAPMO	International Association of Plumbing and Mechanical Officials 4755 E. Philadelphia Street Ontario, CA 91761		
Standard reference number	Title		Referenced in code section number
UPC—2021	Uniform Plumbing Code	.....	C201.3, C501.2
ICC	International Code Council, Inc. 500 New Jersey Avenue, N.W., 6th Floor Washington, D.C. 20001		
Standard reference number	Title		Referenced in code section number
IBC—21	International Building Code	.....	C201.3, C303.2, C402.4.3, C501.2
ICC 500—2020	Standard for the Design and Construction of Storm Shelters	.....	C402.4.2
IFC—21	International Fire Code	.....	C201.3, C501.2
IFGC—21	International Fuel Gas Code	.....	C201.3, C501.2

IMC—21	International Mechanical Code	.....	C106.3, C201.3, C402.5.3, C403.2.2.1, C403.2.2.2, C403.3.5, C403.3.5.1, C403.6.1, C403.6.5, C403.6.10, C403.7.1, C403.7.2, C403.7.5, C403.7.5.1, C403.7.6, C403.7.7.3, C403.7.8.1, C403.7.8.4, C403.8.4, C403.8.5.1, Table C403.10.1, C403.10.1.2, Table C403.10.1.2, C403.10.2.2, C403.12, C406.6, C408.2.2.1, C501.2
IEEE	The Institute of Electrical and Electronic Engineers, Inc. 3 Park Avenue New York, NY 10016		
Standard reference number	Title		Referenced in code section number
IEEE 515.1—2012	IEEE Standard for the Testing, Design, Installation and Maintenance of Electrical Resistance Trace Heating for Commercial Applications	.....	C404.6.2
IES	Illuminating Engineering Society 120 Wall Street, 17th Floor New York, NY 10005-4001		
Standard reference number	Title		Referenced in code section number
ANSI/ASHRAE/IESNA 90.1—2019	Energy Standard for Buildings Except Low-rise Residential Buildings	.....	Table C402.1.3, Table C402.1.4, Table C407.5.1
ISO	International Organization for Standardization 1, rue de Varembe, Case postale 56, CH-1211 Geneva, Switzerland		
Standard reference number	Title		Referenced in code section number
ISO/AHRI/ASHRAE 13256-1 (2017)	Water-Source Heat Pumps—Testing and Rating for Performance—Part 1: Water-to-air and Brine-to-air Heat Pumps	.....	C403.3.2 (14)
ISO/AHRI/ASHRAE 13256-2 (2017)	Water-Source Heat Pumps—Testing and Rating for Performance—Part 2: Water-to-water and Brine-to-water Heat Pumps	.....	C403.3.2 (14)
25745-2:2015	Energy Performance of Lifts, Escalators and Moving Walks—Part 2: Energy Calculation and Classification for Lifts (Elevators)	.....	C406.2.14
NEEA	Northwest Energy Efficiency Alliance 421 SW 6th Ave. Suite 600 Portland, OR 97204		
Standard reference number	Title		Referenced in code section number
AWHS Vers. 8.0—2022	Advanced Water Heating Specification	.....	C404.2.1
NEMA	National Electric Manufacturers Association 1300 North 17th Street		

	Suite 1752 Rosslyn, VA 22209	
Standard reference number	Title	Referenced in code section number
ANSI/NEMA WD 6-2016	Wiring Devices—Dimensional Specifications	C405.12
MGI—2016	Motors and Generators	C202
TP-1-2002	Guide for Determining Energy Efficiency for Distribution Transformers	C405.9
NFRC	National Fenestration Rating Council, Inc. 6305 Ivy Lane, Suite 140 Greenbelt, MD 20770	
Standard reference number	Title	Referenced in code section number
100—2020	Procedure for Determining Fenestration Product U-factors	C303.1.2, C402.2.2
200—2020	Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence	C303.1.3, C402.4.1.1
202—2017	Procedure for Determining Fenestration Product Visible Transmittance at Normal Incidence	C202
NFRC 203—2017	Procedure for Determining Visible Transmittance of Tubular Daylighting Devices	C202, C402.4.2
400—2017	Procedure for Determining Fenestration Product Air Leakage	Table C402.4.2
SMACNA	Sheet Metal and Air Conditioning Contractors National Association, Inc. 4021 Lafayette Center Drive Chantilly, VA 20151-1209	
Standard reference number	Title	Referenced in code section number
SMACNA—2012	HVAC Air Duct Leakage Test Manual	C403.10.2.3
UL	Underwriters Laboratories 333 Pfingsten Road Northbrook, IL 60062-2096	
Standard reference number	Title	Referenced in code section number
710—12	Exhaust Hoods for Commercial Cooking Equipment	C403.7.5
727—18	Oil-fired Central Furnaces—with Revisions through April 2010	Table C403.3.2(4), Table C403.3.2(5)
731—18	Oil-fired Unit Heaters—with Revisions through April 2010	Table C403.3.2(5)
US-FTC	United States-Federal Trade Commission 600 Pennsylvania Avenue N.W. Washington, D.C. 20580	
Standard reference number	Title	Referenced in code section number
C.F.R. Title 16 (2015)	R-value Rule	C303.1.4
WDMA	Window and Door Manufacturers Association 1400 East Touhy Avenue, Suite 470	

Des Plaines, IL 60018

Standard reference number	Title	Referenced in code section number
AAMA/WDMA/CSA 101/I.S.2/A440—17	North American Fenestration Standard/ Specification for Windows, Doors and Unit Skylights	Table C402.4.2

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-600000, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-600000, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-600000, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-600000, filed 1/19/16, effective 7/1/16.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.