
APPENDIX 1-A STANDARDS AND DOCUMENTS REFERENCED IN THE ENERGY CODE

The following documents are incorporated by reference to the extent they are referenced in the Energy Code.

AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE

- AHRI 210/240-08 Performance Rating of Unitary Air Conditioning and Air-Source Heat Pump Equipment (2008 with Addendum 1)
- AHRI 310/380-17 Packaged Terminal Air-Conditioners and Heat Pumps (2017)
- AHRI 320-98 Water-Source Heat Pumps
- AHRI 325-98 Ground Water-Source Heat Pumps (1998)
- ANSI/AHRI 340/360-15
Performance Rating of Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment (2015)
- ANSI/AHRI 365-09 Commercial and Industrial Unitary Air-Conditioning Condensing Units (2009)
- ANSI/AHRI 390-03 Performance Rating of Single Package Vertical Air Conditioners and Heat Pumps
- ANSI/AHRI 400-15 Liquid to Liquid Heat Exchangers (2015)
- ANSI/AHRI 460-05 Performance Rating of Remote Mechanical-Draft Air-Cooled Refrigerant Condensers (2005)
- AHRI 550/590-15 Performance Rating of Water-Chilling Packages Using the Vapor Compression Cycle (2015)
- ANSI/AHRI 560-00 Absorption Water Chilling and Water Heating Packages (2000)
- AHRI 680 Performance Rating of Residential Air Filter Equipment (2015)
- AHRI 1230-14 Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment (w/Addendum 1)
- Available from: Air-Conditioning, Heating and Refrigeration Institute
2311 Wilson Blvd., Suite 400
Arlington, VA 22203
(703) 524-8800

AIR-CONDITIONING CONTRACTORS OF AMERICA

Manual J—Residential Load Calculation, Eighth Edition (2016)

- Available from: Air-Conditioning Contractors of America, Inc.
2800 Shirlington Road, Suite 300
Arlington, VA 22206
(703) 575-4477
www.acca.org

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION CANADIAN STANDARDS ASSOCIATION WINDOW AND DOOR MANUFACTURERS ASSOCIATION

- AAMA/WDMA/CSA 101/I.S.2/A440-11
NAFS 2011 – North American Fenestration Standard/Specification for Windows, Doors, and Skylights

Available from:

- AAMA
1827 Walden Office Square, Suite 550
Schaumburg, IL 60173-4268

(847) 303-5664
www.aamanet.org

CSA

5060 Spectrum Way, Suite 100
 Mississauga, ON, Canada L4W 5N6
 (800) 463-6727
www.csagroup.org

WDMA

2025 M Street, NW, Suite 800
 Washington, DC 20036-3309
 (202) 367-1157
www.wdma.com

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS

2018 Threshold Limit Values (TLVS) and Biological Exposure Indices (BEIS)

Available from:

ACGIH

1330 Kemper Meadow Drive
 Cincinnati, Ohio 45240
 (513) 742-2020
www.acgih.org

AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI Z21.10.3-17 Gas Water Heaters, Volume 1, Storage Water Heaters with Input Ratings above 75,000 Btu/h (2017)

ANSI Z21.13-17 Gas-Fired Low Pressure Steam and Hot Water Boilers (2017)

ANSI Z21.40.4-17 Performance Testing and Rating of Gas-Fired, Air-Conditioning and Heat Pump Appliances (2017)

ANSI Z21.47-16 Gas-Fired Central Furnaces (2016)

ANSI Z83.8-16 Gas Unit Heaters and Gas-Fired Duct Furnaces (2016)

Available from: American National Standards Institute
 25 West 43rd Street, 4th floor
 New York, NY 10036
 (212) 642-4900

ANSI/NSPI-5-03 Residential Inground Swimming Pools (2003)

ANSI C82.6-15 Ballasts for High-Intensity Discharge Lamps—Methods of Measurement (2015)

Available from: Association of Pool & Spa Professionals
 2111 Eisenhower Ave.
 Alexandria, VA 22314
 (703) 838-0083

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (NATIONAL PUBLICATIONS)

ASHRAE Standard 52.2-2017

Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size

ASHRAE Standard 55-2017

Thermal Environment Conditions for Human Occupancy

ASHRAE Standard 62.2-2016

Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

ASHRAE 193-2010 (RA 2014)

Method of Test for Determining the Air tightness of HVAC Equipment (RA 2014)

ASHRAE Handbooks

HVAC Applications (2015)

HVAC Systems and Equipment (2016)

Fundamentals (2017)

Available from: American Society of Heating,
Refrigerating and Air-Conditioning Engineers
(ASHRAE)
1791 Tullie Circle N.E.
Atlanta, GA 30329
www.ashrae.org

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS
(REGIONAL PUBLICATION)**

ASHRAE Climatic Data for Region × Arizona, California, Hawaii, Nevada, Publication SPCDX, 1982, ISBN #20002196 and Supplement, 1994, ISBN #20002596

Available from: Order Desk
Building News
10801 National Boulevard
Los Angeles, CA 90064
(800) 873-6397 or (310) 474-7771
www.bnibooks.com/

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

ASME A112.18.1-2012/CSA B125.1-12

Plumbing Supply Fittings

ASME A17.1-2016 Safety Code for Elevators and Escalators (2016)

Available from: ASME
Two Park Avenue
New York, NY 10016-5990
(800) 843-2763
<http://www.asme.org/>

AMERICAN SOCIETY FOR TESTING AND MATERIALS / ASTM INTERNATIONAL

ASTM C55-17 Standard Specifications for Concrete Brick (2017)

ASTM C177-13 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded Hot Plate Apparatus (2013)

ASTM C272-16 Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions (2016)

ASTM C335/C335M-17
Standard Test Method for Steady-State Heat Transfer Properties of Horizontal Pipe Insulation (2017)

ASTM C518-17 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus (2017)

ASTM C731-15 Standard Test Method for Extrudability, After Package Aging, of Latex Sealants (2015)

ASTM C732-17 Standard Test Method for Aging Effects of Artificial Weathering on Latex Sealants (2017)

ASTM C836/C836M-15
Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course (2015)

ASTM C1167-11 Standard Specification for Clay Roof Tiles (2011)

ASTM C1371-15	Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers (2015)
ASTM C1492-16	Standard Specification for Concrete Roof Tile (2016)
ASTM C1549-16	Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer (2016)
ASTM C1583-13	Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method) (2013)
ASTM D448-17	Standard Classification for Sizes of Aggregate for Road and Bridge Construction (2017)
ASTM D522-17	Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings (2017)
ASTM D822-13	Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings (2013)
ASTM D1003-13	Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics (2013)
ASTM D1653-13	Standard Test Methods for Water Vapor Transmission of Organic Coating Films (2013)
ASTM D1863-11	Standard Specification for Mineral Aggregate Used on Built-Up Roofs (2011)
ASTM D2370-16	Standard Test Method for Tensile Properties of Organic Coatings (2016)
ASTM D2824-13	Standard Specification for Aluminum-Pigmented Asphalt Roof Coatings, Nonfibered, Asbestos Fibered, and Fibered without Asbestos (2013)
ASTM D3468-13	Standard Specification for Liquid-Applied Neoprene and Chlorosulfonated Polyethylene Used in Roofing and Waterproofing (2013)
ASTM D3805/D3805M-16	Standard Guide for Application of Aluminum-Pigmented Asphalt Roof Coatings (2016)
ASTM D4798/16	Standard Test Method Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Xenon-Arc Method) (2016)
ASTM D5870-16	Standard Practice for Calculating Property Retention Index of Plastics (2016)
ASTM D6083-05e1	Standard Specification for Liquid- Applied Acrylic Coating Used in Roofing (2005)
ASTM D6694/D6694M-15	Standard Specification for Liquid- Applied Silicone Coating Used in Spray Polyurethane Foam Roofing (2015)
ASTM E96-16	Standard Test Methods for Water Vapor Transmission of Materials (2016)
ASTM E283-12	Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen (2012)
ASTM E408-13	Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques (2013)
ASTM E972-13	Standard Test Method for Solar Photometric Transmittance of Sheet Materials Using Sunlight (2013)
ASTM E1918-16	Standard Test Method for Measuring Solar Reflectance of Horizontal and Low-Sloped Surfaces in the Field (2016)
ASTM E1980-1	Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces (2011)
ASTM E2178-13	Standard Test Method for Air Permeance of Building Materials (2013)
ASTM E2357-17	Standard Test Method for Determining Air Leakage of Air Barrier Assemblies (2017)
ASTM E779-10	Standard Test Method for Determining Air Leakage Rate by Fan Pressurization (2010)
ASTM E1677-11	Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls (2011)

Available from: ASTM International
100 Barr Harbor Drive West
Conshohocken, PA 19428-2959
(800) 262-1373 or (610) 832-9500

CALIFORNIA BUILDING STANDARDS COMMISSION

California Electrical Code

California Plumbing Code

California Mechanical Code

California Building Code

Available from: California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833-2936
(916) 263-0916
www.bsc.ca.gov

CALIFORNIA ENERGY COMMISSION

Appliance Efficiency Regulations

Alternative Calculation Method (ACM) Manual

Available from: California Energy Commission
1516 Ninth Street
Sacramento, CA 95814
(916) 654-5106 or
(800) 772-3300 (in California)
www.energy.ca.gov/title24

CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS

Standards for Insulating Material

Available from: California Department of Consumer Affairs
Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation
4244 South Market Court, Suite D
Sacramento, California 95834-1243
(916) 999-2041

COOLING TECHNOLOGY INSTITUTE

CTI ATC-105-00 Acceptance Test Code for Water Cooling Towers (2000)

CTI STD-201-15 Standard for the Certification of Water-Cooling Tower Thermal Performance (2015)

Available from: Cooling Technology Institute
2611 FM 1960 West, Suite A101
Houston, Texas 77068-3730
PO Box 73383
Houston, TX 77273-3383
(281) 583-4087

COOL ROOF RATING COUNCIL

CRRC-1 Product Rating Program Manual (2018)

Available from: Cool Roof Rating Council
449 15th Street, Suite 400
Oakland, CA 94612
(866) 465-2523
www.coolroofs.org

HYDRONICS INSTITUTE

HI Heating Boiler Standard 86, 6th Edition (1989)

Available from: Hydronics Institute
35 Russo Place, P.O. Box 218
Berkeley Heights, New Jersey 07922
(908) 464-8200

ILLUMINATING ENGINEERING SOCIETY

The IES Lighting Handbook, Tenth Edition (2011)

IES LM-79-08 Electrical and Photometric Measurements of Solid-State Lighting Products (2008)

Available from: IES
120 Wall Street, 17th Floor
New York, NY 10005-4001
(212) 248-5000
www.ies.org

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

California Mechanical Code

Available from: International Association of Plumbing and Mechanical Officials
4755 E. Philadelphia St.
Ontario, CA 91761
(800) 85-IAPMO (854-2766)
www.iapmo.org

INTERNATIONAL CODE COUNCIL

California Building Code

Available from: International Code Council
Western Regional Office
3060 Saturn St.
Brea, CA 92821
(888) 422-7233
www.iccsafe.org

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO-13256-1 Water-Source Heat Pumps-Testing and Rating for Performance-Part 1: Water-to-Air and Brine-to-Air Heat Pumps (1998)

ISO-13256-2 Water-Source Heat pumps—Testing and rating for Performance—Part 1: Water-to-Water and Brine-to-Water Heat Pumps (1998)

Available from: ISO
Chemin de Blandonnet 8
CP 401
1214 Vernier
Geneva, Switzerland

INTERNATIONAL WINDOW FILM ASSOCIATION

Visual Quality Standard for Applied Window Film

Visual Quality Standard for Applied Window Film (Re-endorsed 2015)

Available from: International Window Film Association
P.O. Box 3871
Martinsville, VA 24115-3871
276-666-4932

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

NEMA SSL 7A-2015 "Phase Cut Dimming for Solid State Lighting: Basic Compatibility"

Available from: 1300 North 17th Street, Suite 1752
Rosslyn, VA 22209
708-841-3200
www.nema.org

NATIONAL FENESTRATION RATING COUNCIL

NFRC 100 Procedure for Determining Fenestration Product *U*-factors (2017)
NFRC 200 Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence (2017)
NFRC 202 Procedure for Determining Translucent Fenestration Product Visible Transmittance at Normal Incidence (2017)
NFRC 203 Procedure for Determining Visible Transmittance of Tubular Daylighting Devices (2017)
NFRC 400 Procedure for Determining Fenestration Product Air Leakage (2017)
Available from: National Fenestration Rating Council
6035 Ivy Lane, Suite 140
Greenbelt, MD 20770
(301) 589-1776
www.NFRC.org
Email: info@nfr.org

NSF INTERNATIONAL (FORMERLY NATIONAL SANITATION FOUNDATION)

NSF/ANSI 50 (2016) Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs (2016)

Available from: NSF International
PO Box 130140
Ann Arbor, MI 48113
(735) 769-8010

RESIDENTIAL ENERGY SERVICES NETWORK

ANSI/RESNET/ICC 380-2016
Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems (2016)

Available from: Residential Energy Services Network, Inc. (RESNET)
P.O. Box 4561
Oceanside, CA 92052-4561
<https://www.resnet.us/>

SHEET METAL AND AIR-CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION

Residential Comfort System Installation Standards Manual (2016)

Available from: Sheet Metal and Air-Conditioning Contractors' National Association (SMACNA)
4201 Lafayette Center Drive
Chantilly, VA 20151-1209
(703) 803-2980
www.smacna.org

UNDERWRITERS LABORATORIES / UL

UL 181 Standard for Safety for Factory-made Air Ducts and Connectors (2017)
UL 181A Standard for Safety for Closure Systems for Use with Rigid Air Ducts and Air Connectors (2017)

UL 181B	Standard for Safety for Closure Systems for Use with Flexible Air Ducts and Air Connectors (2017)
UL 723	Standard for Test for Surface Burning Characteristics of Building Materials (2017)
UL 727	Standard for Oil-Fired Central Furnaces (2006)
UL 731	Standard for Oil-Fired Unit Heaters (2012)
UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment (2015)
UL 1574	Track Lighting Systems (2016)
UL 1598	Standard for Luminaires (2012)
UL 1741	Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (2018)
UL 1973	Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications (2018)
UL 2108	Low Voltage Lighting Systems (2018)
UL 8750	Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products (2018)
UL 9540	Standard for Energy Storage Systems and Equipment (2016)
Available from:	UL LLC 333 Pfingsten Road Northbrook, IL 60062-2096 (847) 272-8800