

# Winter 2015 ASHRAE Publications List

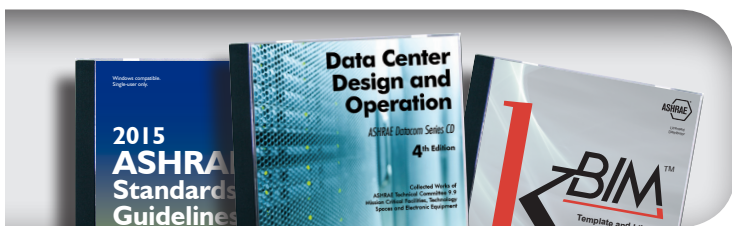


Great Resources for: Reference | Design Guidance | Learning



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[www.ashrae.org/bookstore](http://www.ashrae.org/bookstore)

Look inside for the most current HVAC&R technical literature from ASHRAE and other publishers.

## Datacom Series

The eleven-publication Datacom Series, authored by ASHRAE Technical Committee 9.9, Mission Critical Facilities, Technology Spaces and Electronic Equipment, provides a comprehensive treatment of data center cooling and related subjects.



### **Thermal Guidelines for Data Processing Environments, 3rd Ed.**

This guide provides equipment manufacturers and facility operations staff with a common set of guidelines for the design and construction of their respective equipment or facility.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90453

### **Datacom Equipment Power Trends and Cooling Applications, 2nd Ed.**

This reference provides new and expanded datacom equipment power trend charts through 2020 to allow datacom facility designers to more accurately predict equipment loads.  
List: \$59.00 (ASHRAE Member \$50.00)  
Product code: 90441

### **Design Considerations for Datacom Equipment Centers, 2nd Ed.**

This book provides basic information essentials for the design of datacom facilities. It covers design criteria, HVAC loads, cooling systems overview, air distribution and liquid cooling.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90445

### **Liquid Cooling Guidelines for Datacom Equipment Centers, 2nd Ed.**

This second edition includes information on approach temperatures and liquid immersion cooling, plus guidance on water quality problems and wetted material requirements.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90564

### **Structural and Vibration Guidelines for Datacom Equipment Centers**

This book discusses datacom equipment as well as a building's structure and infrastructure in a holistic way while providing best practices for their design and installation.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90429

### **Best Practices for Datacom Facility Energy Efficiency, 2nd Ed.**

This book covers many aspects of datacom facility energy efficiency, and includes chapters on environmental criteria, mechanical equipment and systems, and more.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90447

### **High-Density Data Centers - Case Studies and Best Practices**

This book provides a series of case studies of high density data centers and a range of ventilation schemes that demonstrate how loads can be cooled using different approaches.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90441

### **Particulate and Gaseous Contamination in Datacom Environments, 2nd Ed. NEW!**

This book identifies datacom equipment susceptibility and operational impact, as well as strategies for prevention, control, contamination testing, and analysis.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90568

### **Real-Time Energy Consumption Measurements in Data Centers**

This book is designed to help bridge the gap between IT and facilities organizations within a company, providing an overview of how to monitor key power and cooling subsystems.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90446

### **Green Tips for Data Centers**

This reference seeks to identify building mechanical and electrical systems that offer the most promising energy saving opportunities.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90554

### **PUE™: A Comprehensive Examination of the Metric**

This book provides a high level of understanding of the concepts surrounding power usage effectiveness (PUE) for those implementing, reporting, and analyzing data center metrics.  
List: \$59.00 (ASHRAE Member: \$50.00)  
Product code: 90282

### **Data Center Design and Operation - ASHRAE Datacom Series CD 4th Ed. NEW!**

This CD-ROM presents the full text of all eleven ASHRAE Datacom Series publications and ANSI/ASHRAE Standard 127-2012 in fully searchable and printable PDF format.  
List: \$289.00 (ASHRAE Member: \$246.00)  
Product code: 94814

## A

### **ACG Commissioning Guideline, AABC**

List: \$50.00 (ASHRAE Member: \$50.00)

**Product code:** 96350

### **Active and Passive Beam Application Design Guide NEW!**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90667

### **Advanced Energy Design Guide for Highway Lodging: 30% Energy Savings**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90379

### **Advanced Energy Design Guide for K-12 School Buildings: 30% Energy Savings**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90434

### **Advanced Energy Design Guide for K-12 School Buildings: 50% Energy Savings**

List: \$89.00 (ASHRAE Member: \$62.00)

**Product code:** 90388

### **Advanced Energy Design Guide for Large Hospitals: 50% Energy Savings**

List: \$89.00 (ASHRAE Member: \$62.00)

**Product code:** 90361

### **Advanced Energy Design Guide for Medium to Big Box Retail Buildings: 50% Energy Savings**

List: \$89.00 (ASHRAE Member: \$62.00)

**Product code:** 90389

### **Advanced Energy Design Guide for Small Hospitals and Healthcare Facilities: 30% Energy Savings**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90377

### **Advanced Energy Design Guide for Small Office Buildings: 30% Energy Savings**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90435

### **Advanced Energy Design Guide for Small Retail Buildings: 30% Energy Savings**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90432

### **Advanced Energy Design Guide for Small to Medium Office Buildings: 50% Energy Savings**

List: \$89.00 (ASHRAE Member: \$62.00)

**Product code:** 90383

### **Advanced Energy Design Guide for Small Warehouses and Self-Storage Facilities: 30% Energy Savings**

List: \$62.00 (ASHRAE Member: \$53.00)

**Product code:** 90436

### **Air-Conditioning System Design Manual, 2nd ed.**

List: \$89.95 (ASHRAE Member: \$76.00; Student Member: \$45.00)

**Product code:** 90338

### **Air Distribution Basics, Manual T, ACCA**

List: \$46.00 (ASHRAE Member: \$46.00)

**Product code:** 96749

### **Air Filtration in HVAC Systems, REHVA**

List: \$76.00 (ASHRAE Member: \$76.00)

**Product code:** 96347

### **Alternative Water Sources and Wastewater Management, McGraw-Hill**

List: \$50.00 (ASHRAE Member: \$50.00)

**Product code:** 96196

### **Ammonia as a Refrigerant, 3<sup>rd</sup> ed., IIR**

List: \$69.00 (ASHRAE Member: \$69.00)

**Product code:** 96649

### **Annotated Guide to Load Calculation Models and Algorithms**

List: \$38.00 (ASHRAE Member: \$32.00)

**Product code:** 90390

### **Application Guide: Chiller Heat Recovery**

List: \$48.00 (ASHRAE Member: \$41.00)

**Product code:** 90402

### **Application Guide for Absorption Cooling/Refrigeration Using Recovered Heat**

List: \$79.00 (ASHRAE Member: \$67.00)

**Product code:** 90378

### **Application Guide: Indoor Air Quality Standards of Performance**

List: \$49.00 (ASHRAE Member: \$42.00)

**Product code:** 90417

### **Application of Manufacturers' Sound Data**

List: \$49.00 (ASHRAE Member: \$42.00)

**Product code:** 90393

### **Applied Data Analysis and Modeling for Energy Engineers and Scientists, Springer**

List: \$229.00 (ASHRAE Member: \$229.00)

**Product code:** 96322

### **ASHRAE CD Binder**

List: \$12.00 (ASHRAE Member: \$12.00)

**Product code:** 82888

### **ASHRAE GreenGuide: The Design, Construction and Operation of Sustainable Buildings, 4<sup>th</sup> ed.**

List: \$103.00 (ASHRAE Member: \$87.00;

Student Member: \$59.00)

**Product code:** 90323

### **ASHRAE Guide for Buildings in Hot and Humid Climates, The, 2nd ed.,**

List: \$116.00 (ASHRAE Member: \$99.00)

**Product code:** 90442

### **ASHRAE Handbook 4-Single Volumes CD Set w/CD Binder**

List: \$499.00 (ASHRAE Member: \$265.00;

Student Member: \$149.00)

**Product code:** B82888

### **ASHRAE Handbook—Fundamentals, 2013**

Print volume with CD

List: \$199.00 (ASHRAE Member: \$199.00;

Student Member: \$49.00)

**Product code:** 81130 (I-P), 81131 (SI)

CD, dual units

List: \$179.00 (ASHRAE Member: \$179.00;

Student Member: \$39.00)

**Product code:** 81132 (CD only)

### **ASHRAE Handbook—HVAC Applications, 2011**

Print volume with CD

List: \$199.00 (ASHRAE Member: \$199.00;

Student Member: \$49.00)

**Product code:** 81110 (I-P), 81111 (SI)

CD, dual units

List: \$179.00 (ASHRAE Member: \$179.00;

Student Member: \$39.00)

**Product code:** 81112 (CD only)

### **ASHRAE Handbook—HVAC Systems and Equipment, 2012**

Print volume with CD

List: \$199.00 (ASHRAE Member: \$199.00;

Student Member: \$49.00)

**Product code:** 81120 (I-P), 81121 (SI)

CD, dual units

List: \$179.00 (ASHRAE Member: \$179.00;

Student Member: \$39.00)

**Product code:** 81122 (CD only)

### **ASHRAE Handbook Online**

List: \$269.00 (ASHRAE Member: \$29.00)

To subscribe, go to <http://ashrae.org/handbookonline>

**ASHRAE Handbook—Refrigeration, 2014 NEW!**

Print volume with CD

List: \$199.00 (ASHRAE Member: \$199.00)

Student Member: \$49.00

**Product code:** 81140 (I-P), 81141(SI)

CD, dual units

List: \$179.00 (ASHRAE Member: \$179.00);

Student Member: \$39.00

**Product code:** 81142 (CD only)

**ASHRAE Combined Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for the 32-bit Versions of Excel, MATLAB, Mathcad, EES, DYMOLA and LabVIEW, I-P and SI Units**

List: \$349.00 (ASHRAE Member: \$299.00)

**Product code:** D-94052P

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 32-bit Excel, I-P and SI units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052A

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 64-bit FluidEXL, I-P and SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052A-1

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for EES, I-P and SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052B

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for Mathcad, I-P and SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052C

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 32-bit MATLAB, I-P and SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052D

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 64-bit MATLAB, I-P and SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052D-1

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 32-bit LabVIEW, I-P Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052G-IP

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 32-bit LabVIEW, SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052G-SI

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 64-bit LabVIEW, I-P Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052F-IP

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 64-bit LabVIEW, SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052F-SI

**ASHRAE Library of Humid Air Psychrometric and Transport Property (LibHuAirProp) Functions for 32-bit DYMOLA, I-P and SI Units**

List: \$149.00 (ASHRAE Member: \$119.00)

**Product code:** D-94052H

**ASHRAE Member's Survival Guide—Avoiding Pitfalls in Engineering Practice**

List: \$19.00 (ASHRAE Member: \$16.00)

**Product code:** 90277

**ASHRAE Member's Survival Guide—Contracts**

List: \$29.00 (ASHRAE Member: \$25.00)

**Product code:** 90276

**ASHRAE Member's Survival Guide—Design/ Build**

List: \$24.00 (ASHRAE Member \$20.00)

**Product code:** 90278

**ASHRAE Member's Survival Guide—Proceedings- Moving Towards Sustainability**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 94041

**ASHRAE/NIST Refrigerants Conference**

List: \$147.00 (ASHRAE Member: \$125.00)

**Product code:** 94242

**ASHRAE Papers CD: 2014 Annual Conference, Seattle, WA**

List: \$147.00 (ASHRAE Member: \$125.00)

**Product code:** 94241

**ASHRAE Papers CD: 2014 Winter Conference, New York, NY**

List: \$147.00 (ASHRAE Member: \$125.00)

**Product code:** 94241

**ASHRAE Papers CD: 2013 Annual Conference, Denver, CO**

List: \$147.00 (ASHRAE Member: \$125.00)

**Product code:** 94232

**ASHRAE Papers CD: 2013 Winter Conference, Dallas, TX**

List: \$147.00 (ASHRAE Member: \$125.00)

**Product code:** 94231

**ASHRAE Pocket Guide for Air Conditioning, Heating, Ventilation and Refrigeration, 8<sup>th</sup> ed.**

List: \$49.00 (ASHRAE Member: \$42.00);

Student Member: \$20.00

**Product code:** 90074 (I-P), 90076 (SI)

**ASHRAE Standards and Guidelines CD, 2015 NEW!**

List: \$1,985.00 (ASHRAE Member: \$1,759.00)

**Product code:** 94496

**ASHRAE Standards and Guidelines Complete Print Set (includes 5 binders)**

List: \$2,699.00 (ASHRAE Member: \$2,299.00)

**Product code:** 86001

**ASHRAE Sustainability DVD**

List: \$99.00 (ASHRAE Member: \$84.00)

**Product code:** 94863

**ASHRAE Tools for LEED v4**

List: \$579.00 (ASHRAE Member: \$492.00)

**Product code:** B86995

**Automatic Controls - CIBSE Commissioning Code C**

List: \$101.00 (ASHRAE Member: \$86.00)

**Product code:** 96564

**Avoiding Pitfalls in Engineering Practice, ASHRAE Member's Survival Guide—**

List: \$19.00 (ASHRAE Member: \$16.00)

**Product code:** 90277

**B**

**BACnet: The Global Standard for Building Automation and Control Networks, Momentum Press**

List: \$100.00 (ASHRAE Member: \$100.00)

**Product code:** 96098

**Balancing and Testing Air and Hydronic Systems; Manual B, ACCA**

List: \$53.00 (ASHRAE Member: \$53.00)

**Product code:** 96741

**Best Practices for Datacom Facility Energy Efficiency, 2<sup>nd</sup> ed.**

List: \$59.00 (ASHRAE Member: \$50.00)

**Product code:** 90447

**Building Commissioning Handbook, The, 2<sup>nd</sup> ed., APPA**

List: \$95.00 (ASHRAE Member: \$81.00)

**Product code:** 96015

**Building Control Systems - CIBSE Guide H**

List: \$128.00 (ASHRAE Member: \$109.00)

**Product code:** 96537

**Building Energy Management Systems, 2<sup>nd</sup> ed., CRC Press**

List: \$89.00 (ASHRAE Member: \$89.00)

**Product code:** 96766

**Building Energy Metering, CIBSE**

List: \$76.00 (ASHRAE Member: \$65.00)

**Product code:** 96541

**Building Energy Modeling: An ASHRAE Certification Study Guide**

List: \$34.00 (ASHRAE Member: \$29.00)

**Product code:** 90287

**Building Performance Simulation for Design, CRC**

List: \$120.00 (ASHRAE Member: \$120.00)

**Product code:** 96768

**C**

**Capturing Solar Energy, CIBSE**

List: \$79.00 (ASHRAE Member: \$67.00)

**Product code:** 96545

**Charts, Psychrometric**

**Customize charts with your company logo!**  
For more information, contact ASHRAE Customer Service: 1-800-527-4723 (US/Canada) or (404) 636-8400 (Worldwide)

**Complete Set of Psychrometric Charts (I-P), 5 charts**

List: \$19.00 (ASHRAE Member: \$16.00)

**Product code:** B92200

**Complete Set of Psychrometric Charts (SI), 7 charts**

List: \$19.00 (ASHRAE Member: \$16.00)

**Product code:** B92201

**Chart 1 Normal Temperature - Sea Level (32 to 120 degrees F db), 8.5 x 11 (I-P)**

List: \$18.00 (ASHRAE Member: \$15.00)

**Product code:** 92400 (50 sheet pad)

**Chart 1 Normal Temperature - Sea Level (0 to 50 degrees C db), 8.5 x 11 (SI)**

List: \$18.00 (ASHRAE Member: \$15.00)

**Product code:** 92401 (50 sheet pad)

**Chart 1 Normal Temperature - Sea Level (32 to 120 degrees F db), 11 x 17 (I-P)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92101 (50 sheet pad)

**Chart 1 Normal Temperature - Sea Level (0 to 50 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92111 (50 sheet pad)

**Chart 1 Laminated - Normal Temperature - Sea Level, 8.5 x 11 (I-P & SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92351

**Charts 1 and 2 Laminated - Normal and Low Temperature - Sea Level, 11 x 17 (I-P)**

List: \$26.00 (ASHRAE Member: \$22.00)

**Product code:** 92300

**Charts 1 and 3 Laminated - Normal and High Temperature - Sea Level, 11 x 17 (I-P)**

List: \$26.00 (ASHRAE Member: \$22.00)

**Product code:** 92301

**Chart 2 Low Temperature - Sea Level (-40 to 50 degrees F db), 11 x 17 (I-P)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92102 (50 sheet pad)

**Chart 2 Low Temperature - Sea Level (-40 to 10 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92112 (50 sheet pad)

**Chart 3 High Temperature - Sea Level (60 to 250 degrees F db), 11 x 17 (I-P)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92103 (50 sheet pad)

**Chart 3 High Temperature - Sea Level (10 to 120 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92113 (50 sheet pad)

**Chart 4 Normal Temperature - High Altitude (5000 ft. - 24.89 in. Hg; 32 to 120 degrees F db), 11 x 17 (I-P)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92104 (50 sheet pad)

**Chart 4 Very High Temperature - Sea Level (100 to 200 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92114 (50 sheet pad)

**Chart 5 Normal Temperature - High Altitude (7500 ft - 22.65 in. Hg; 32 to 120 degrees F db), 11 x 17 (I-P)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92105 (50 sheet pad)

**Chart 5 Normal Temperature - High Altitude (750 m - 0 to 50 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92115 (50 sheet pad)

**Chart 6 Normal Temperature - High Altitude (1500 m - 0 to 50 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92116 (50 sheet pad)

**Chart 7 Normal Temperature - High Altitude (2250 m - 0 to 50 degrees C db), 11 x 17 (SI)**

List: \$22.00 (ASHRAE Member: \$19.00)

**Product code:** 92117 (50 sheet pad)

**Chilled Beam Application, REHVA**

List: \$76.00 (ASHRAE Member: \$76.00)

**Product code:** 96342

**Chiller Heat Recovery, Application Guide:**

List: \$48.00 (ASHRAE Member: \$41.00)

**Product code:** 90402

**CHVAC-Commercial HVAC Loads Software-2 Zone, Elite Software**

List: \$295.00 (ASHRAE Member: \$250.00)

**Product code:** 96852A

**CHVAC-Commercial HVAC Loads Software-10 Zone, Elite Software**

List: \$395.00 (ASHRAE Member: \$335.00)

**Product code:** 96852B

**CHVAC-Commercial HVAC Loads Software-50 Zone, Elite Software**

List: \$595.00 (ASHRAE Member: \$505.00)

**Product code:** 96852C

**CHVAC-Commercial HVAC Loads Software- 100 Zone, Elite Software**  
List: \$995.00 (ASHRAE Member: \$845.00)  
**Product code:** 96852D

**CHVAC-Commercial HVAC Loads Software-Unlimited, Elite Software**  
List: \$1495.00 (ASHRAE Member: \$1270.00)  
**Product code:** 96852E

**CleanCalc II- Cleanroom & Fab Energy Simulation & Analysis Program CD, Hands Down Software**  
List: \$299.00 (ASHRAE Member: \$299.00)  
**Product code:** 96867

**Cleaning Fibrous Glass Insulated Air Duct Systems—Recommended Practices, NAIMA**  
List: \$8.00 (ASHRAE Member: \$8.00)  
**Product code:** 96755

**Clean, Lean and Green—IAQ for Sustainable Buildings - Webcast DVD**  
List: \$54.00 (ASHRAE Member: \$46.00)  
**Product code:** 94877

**Cleanliness of Ventilation Systems, REHVA**  
List: \$76.00 (ASHRAE Member: \$76.00)  
**Product code:** 96344

**Cleanroom Design, Wiley**  
List: \$205.00 (ASHRAE Member: \$205.00)  
**Product code:** 96272

**Climate Change and the Indoor Environment: Impacts and Adaptations, CIBSE**  
List: \$101.00 (ASHRAE Member: \$86.00)  
**Product code:** 96523

**Cogeneration Design Guide**  
List: \$61.00 (ASHRAE Member: \$52.00)  
**Product code:** 90392

**Cold Air Distribution System Design Guide**  
List: \$84.00 (ASHRAE Member: \$71.00)  
**Product code:** 90396

**Coldroom: Calculation of Refrigeration Load for Coldrooms, SKOPJE**  
List: \$200.00 (ASHRAE Member: \$200.00)  
**Product code:** D-96718

**Cold Store Guide, IIR**  
List: \$63.00 (ASHRAE Member: \$63.00)  
**Product code:** 96602

**Combined Heat and Power for Buildings, AM12, CIBSE**  
List: \$110.00 (ASHRAE Member: \$93.00)  
**Product code:** 96573

**Combined Heat and Power Systems Design Guide NEW!**  
List: \$109.00 (ASHRAE Member: \$93.00)  
**Product code:** 90555

**Comfort Makers, The**  
List: \$49.00 (ASHRAE Member: \$42.00)  
**Product code:** 90418

**Commissioning Code M: Commissioning Management, CIBSE**  
List: \$101.00 (ASHRAE Member: \$86.00)  
**Product code:** 96563

**Commissioning, Preventive Maintenance and Troubleshooting Guide for Commercial Ground-Source Heat Pump Systems**  
List: \$74.00 (ASHRAE Member: \$63.00)  
**Product code:** 90302

**Compression Cycles for Environmentally Acceptable Refrigeration, Air-Conditioning and Heat Pump Systems, IIR**  
List: \$63.00 (ASHRAE Member: \$63.00)  
**Product code:** 96604

**Computational Fluid Dynamics in Ventilation Design, REHVA**  
List: \$76.00 (ASHRAE Member: \$76.00)  
**Product code:** 96336

**Constructionary, 2<sup>nd</sup> ed., ICC**  
List: \$20.00 (ASHRAE Member: \$20.00)  
**Product code:** 96771

**Consumer Guide to Home Energy Savings, 10<sup>th</sup> ed., ACEEE**  
List: \$19.00 (ASHRAE Member: \$19.00)  
**Product code:** 96880

**Control of the Cold Chain for Quick-Frozen Foods Handbook, IIR**  
List: \$67.00 (ASHRAE Member: \$67.00)  
**Product code:** 96639

**Control Systems for Heating, Ventilating, and Air Conditioning, 6<sup>th</sup> ed., Springer**  
List: \$80.00 (ASHRAE Member: \$80.00)  
**Product code:** 96345

**Cook with Cold—Old Tyme Refrigerator Recipes**  
List: \$13.00 (ASHRAE Member: \$13.00)  
**Product code:** 90325

**COOL Hong Kong, ASHRAE Hong Kong Chapter**  
List: \$35.00 (ASHRAE Member: \$25.00)  
**Product code:** 96027

## D

**Dampers and Airflow Control**  
List: \$89.00 (ASHRAE Member: \$75.00)  
**Product code:** 90138

**Data Center Design and Operation – ASHRAE Datacom Series CD, 4<sup>th</sup> ed. NEW!**  
List: \$289.00 (ASHRAE Member: \$246.00)  
**Product code:** 94814

**Data Centres: An Introduction to Concepts and Design, KS18, CIBSE**  
List: \$94.00 (ASHRAE Member: \$80.00)  
**Product code:** 96519

**Datacom Equipment Power Trends and Cooling Applications, 2<sup>nd</sup> ed.**  
List: \$59.00 (ASHRAE Member: \$50.00)  
**Product code:** 90451

**Dedicated Outdoor Air Systems: A Path to Balancing Energy and IEQ- an ASHRAE webcast DVD**  
List: \$69.00 (ASHRAE Member: \$58.00)  
**Product code:** 94860

**Design Considerations for Datacom Equipment Centers, 2<sup>nd</sup> ed.**  
List: \$59.00 (ASHRAE Member: \$50.00)  
**Product code:** 90445

**Design Essentials for Refrigerated Storage Facilities**  
List: \$74.00 (ASHRAE Member: \$63.00)  
**Product code:** 90433

**Design Guide for Combustion Turbine Inlet Air Cooling Systems**  
List: \$46.00 (ASHRAE Member: \$39.00)  
**Product code:** 90385

**Designer's Guide to Ceiling-Based Air Diffusion**  
List: \$99.00 (ASHRAE Member: \$84.00)  
**Product code:** 90425

**Design Phase Commissioning Handbook, NEBB**

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**Product code:** 86243(I-P)

**Standard 90.1-2004 User's Manual**

List: \$93.00 (ASHRAE Member: \$79.00)

**Product code:** 90352

**Standard 90.1-2007, Energy Standard for Buildings Except Low-Rise Residential Buildings\* (IES co-sponsored)**

List: \$119.00 (ASHRAE Member: \$99.00)

**Product code:** 86147 (I-P); 86149 (SI)

**Standard 90.1-2007 User's Manual**

List: \$93.00 (ASHRAE Member: \$79.00)

**Product code:** 90353

\*ANSI approved.

**Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings\* (IES co-sponsored)**

List: \$125.00 (ASHRAE Member: \$106.00; Student Member: \$53.00)

**Product code:** 86267 (I-P); 86269 (SI)

**Standard 90.1-2010 User's Manual**

List: \$99.00 (ASHRAE Member: \$84.00)

**Product code:** 90327

**Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings\* (IES co-sponsored)**

List: \$135.00 (ASHRAE Member: \$115.00; Student Member: \$57.00)

**Product code:** 86273 (I-P); 86275 (SI)

**Standard 90.1-2013 User's Manual**

List: \$115.00 (ASHRAE Member: \$98.00)

**Product code:** 90321

**Standard 90.2-2007, Energy-Efficient Design of Low-Rise Residential Buildings\***

List: \$95.00 (ASHRAE Member: \$81.00)

**Product code:** 86239

**Standard 93-2010 (RA 2014), Methods of Testing to Determine Thermal Performance of Solar Collectors\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86250

**Standard 94.2-2010, Method of Testing Thermal Storage Devices with Electrical Input and Thermal Output Based on Thermal Performance**

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86261

**Standard 95-1987, Methods of Testing to Determine the Thermal Performance of Solar Domestic Water Heating Systems**

List: \$19.00 (ASHRAE Member: \$16.00)

**Product code:** 86265

**Standard 96-1980 (RA 1989), Methods of Testing to Determine the Thermal Performance of Unglazed Flat-Plate Liquid-Type Solar Collectors**

List: \$19.00 (ASHRAE Member: \$16.00)

**Product code:** 86271

**Standard 97-2007, Sealed Glass Tube Method to Test the Chemical Stability of Materials for Use within Refrigerant Systems\***

List: \$24.00 (ASHRAE Member: \$20.00)

**Product code:** 86279

**Standard 99-2006, Refrigeration Oil Description\***

List: \$18.00 (ASHRAE Member: \$15.00)

**Product code:** 86283

**Standard 100-2006, Energy Conservation in Existing Buildings\* (IES co-sponsored)**

List: \$33.00 (ASHRAE Member: \$28.00)

**Product code:** 86297

**Standard 103-2007, Method of Testing for Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers\***

List: \$69.00 (ASHRAE Member: \$59.00)

**Product code:** 86318

**Standard 105-2014, Standard Methods of Measuring, Expressing, and Comparing Building Energy Performance and Greenhouse Gas Emissions\***

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86326

**Standard 110-1995, Method of Testing Performance of Laboratory Fume Hoods\***

List: \$24.00 (ASHRAE Member: \$20.00)

**Product code:** 86336

**Standard 111-2008, Practices for Measurement, Testing, Adjusting, and Balancing of Building Heating, Ventilation, Air-Conditioning and Refrigeration Systems\***

List: \$69.00 (ASHRAE Member: \$59.00)

**Product code:** 86335

**Standard 113-2013, Method of Testing for Room Air Diffusion\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86342

**Standard 116-2010, Methods of Testing for Rating Seasonal Efficiency of Unitary Air Conditioners and Heat Pumps\***

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86350

**Standard 118.1-2012, Method of Testing for Rating Commercial Gas, Electric, and Oil Service Water Heating Equipment\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86360

**Standard 118.2-2006, Method of Testing for Rating Residential Water Heaters\***

List: \$24.00 (ASHRAE Member: \$20.00)

**Product code:** 86359

**Standard 120-2008, Method of Testing to Determine Flow Resistance of HVAC Ducts and Fittings\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86365

**Standard 124-2007, Methods of Testing for Rating Combination Space-Heating and Water-Heating Appliances\***

List: \$35.00 (ASHRAE Member: \$30.00)

**Product code:** 86372

**Standard 125-1992 (RA 2011), Method of Testing Thermal Energy Meters for Liquid Streams in HVAC Systems\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86378

**Standard 126-2008, Method of Testing HVAC Air Ducts\* (SMACNA co-sponsored)**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86382

**Standard 127-2012, Method of Testing for Rating Computer and Data Processing Room Unitary Air Conditioners\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86402

**Standard 128-2011, Method of Rating Unitary Spot Air Conditioners\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86409

**Standard 129-1997 (RA 2002), Measuring Air Change Effectiveness\***

List: \$35.00 (ASHRAE Member: \$30.00)

**Product code:** 86423

**Standard 130-2008, Methods of Testing for Rating Ducted Air Terminal Units\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86427

**Standard 13256-1: 1998 (RA 2012), Water-source Heat Pumps —Testing and Rating for Performance — Part 1: Water-to-air and Brine-to-Air Heat Pumps\* (ARI and ISO sponsored)**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86702

\*ANSI approved.

**Standard 13256-2: 1998 (RA 2012), Water-source Heat Pumps-Testing and Rating for Performance-Part 2: Water-to-water And Brine-to-water Heat Pumps\* (ARI and ISO sponsored)**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86704

**Standard 133-2008, Method of Testing direct Evaporative Air Coolers \*(ARI and ISO sponsored),**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86433

**Standard 134-2005 (RA 2014), Graphic Symbols for Heating, Ventilating, Air-Conditioning, and Refrigerating Systems,\***

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86436

**Standard 135-2012, BACnet® A Data Communication Protocol for Building Automation and Control Networks\***

List: \$170.00 (ASHRAE Member: \$140.00)

**Product code:** 86439

**Standard 135.1-2013, Method of Test for Conformance to BACnet®\*\***

List: \$119.00 (ASHRAE Member: \$101.00)

**Product code:** 86444

**Standard 137-2013, Methods of Testing for Efficiency of Space-Conditioning/Water-Heating Appliances that Include a Desuperheater Water Heater\***

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86458

**Standard 138-2013, Method of Testing for Rating Ceiling Panels for Sensible Heating and Cooling\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86479

**Standard 139-2007, Method of Testing for Rating Desiccant Dehumidifiers Utilizing Heat for the Regeneration Process\***

List: \$36.00 (ASHRAE Member: \$31.00)

**Product code:** 86466

**Standard 140-2014, Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs\* **NEW!****

List: \$99.00 (ASHRAE Member: \$84.00)

**Product code:** 86725

**Standard 143-2007, Method of Test for Rating Indirect Evaporative Coolers\***

List: \$26.00 (ASHRAE Member: \$22.00)

**Product code:** 86478

**Standard 145.1-2008, Laboratory Test Method for Assessing the Performance of Gas-Phase Air-Cleaning Systems: Loose Granular Media\***

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86476

**Standard 145.2-2011, Laboratory Test Method for Assessing the Performance of Gas-Phase Air Cleaning Systems: Air Cleaning Devices\***

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86477

**Standard 146-2011, Methods of Testing and Rating Pool Heaters\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86483

**Standard 147-2013, Reducing the Release of Halogenated Refrigerants from Refrigerating and Air-Conditioning Equipment and Systems\***

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86523

**Standard 149-2013, Laboratory Methods of Testing Fans Used to Exhaust Smoke in Smoke Management Systems\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86475

**Standard 150-2000 (RA 2014), Method of Testing the Performance of Cool Storage Systems\* **NEW!****

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86625

**Standard 151-2010, Practices for Measuring, Testing, Adjusting, and Balancing Shipboard HVAC&R Systems\***

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86489

**Standard 152-2014, Method of Test for Determining the Design and Seasonal Efficiencies of Residential Thermal Distribution Systems\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86520

**Standard 154-2011, Ventilation for Commercial Cooking Operations\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86486

**Standard 158.1-2012, Methods of Testing Capacity of Refrigerant Solenoid Valves\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86484

**Standard 158.2-2011, Method of Testing Capacity of Refrigerant Pressure Regulators\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86505

**Standard 160-2009, Criteria for Moisture-Control Design Analysis in Buildings\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86488

**Standard 161-2013, Air Quality within Commercial Aircraft\***

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86526

**Standard 164.1-2012, Method of Testing for Residential Central-System Humidifiers\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86601

**Standard 164.2-2012, Method of Test for Residential Self-Contained Humidifiers\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86506

**Standard 169-2013, Climate Data for Building Design Standards\***

List: \$72.00 (ASHRAE Member: \$61.00)

**Product code:** 86519

**Standard 170-2013, Ventilation of Health Care Facilities\* (ASHE co-sponsored)**

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86515

**Standard 171-2008, Method of Testing Seismic Restraint Devices for HVAC&R Equipment\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86500

**Standard 173-2012, Method of Test to Determine the Performance of Halocarbon Refrigerant Leak Detectors (BSR/ASHRAE Approved)\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86510

\*ANSI approved.

**Standard 174-2009, Method of Test for Rating Desiccant-Based Dehumidification Equipment\***

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86503

**Standard 180-2012, Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems\* (ACCA Approved)**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86508

**Standard 181-2014, Methods of Testing for Rating Liquid-to-Liquid Heat Exchangers \***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86513

**Standard 182-2008 (RA 2013), Method of Testing Absorption Water-Chilling and Water-Heating Package\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86511

**Standard 183-2007(RA 2014), Peak Cooling and Heating Load Calculations in Buildings except Low-Rise Residential Buildings\* **NEW!****

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86521

**Standard 185.2-2014, Method of Testing Ultraviolet Lamps for Use in HVAC&R Units or Air Ducts to Inactivate Microorganisms on Irradiated Surfaces\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86517

**Standard 189.1-2011, Standard for the Design of High-Performance Green Buildings (USGBC and IES co-sponsored)\***

List: \$119.00 (ASHRAE Member: \$99.00; Student Member: \$49.00)

**Product code:** 86604

**Standard 189.1-2009 User's Manual**

List: \$93.00 (ASHRAE Member: \$79.00)

**Product code:** 90142

**Standard 189.1-2014, Standard for the Design of High-Performance Green Buildings (USGBC and IES co-sponsored)\* **NEW!****

List: \$128.00 (ASHRAE Member: \$109.00; Student Member: \$49.00)

**Product code:** 86606

**Standard 190-2013, Method of Testing for Rating Indoor Pool Dehumidifiers\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86614

**Standard 193-2010 (RA 2014), Method of Test for Determining the Airtightness of HVAC Equipment\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86516

**Standard 194-2012, Method of Test for Direct-Expansion Ground-Source Heat Pumps\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86618

**Standard 195-2013, Method of Test for Rating Air Terminal Unit Controls\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86620

**Standard 198-2013, Method of Test for Rating DX-Dedicated Outdoor Air Systems for Moisture Removal Capacity and Removal Efficiency\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86623

**Standard 202-2013, Commissioning Process for Buildings and Systems (IES Co-sponsored)\***

List: \$72.00 (ASHRAE Member: \$61.00)

**Product code:** 86628

**Standard 206-2013, Method of Testing for Rating of Multipurpose Heat Pumps for Residential Space Conditioning and Water Heating\***

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86635

## GUIDELINES

**Guideline 0-2013, The Commissioning Process**

List: \$72.00 (ASHRAE Member: \$61.00)

**Product code:** 86821

**Guideline 1.1-2007, HVAC&R Technical Requirements for the Commissioning Process**

List: \$69.00 (ASHRAE Member: \$59.00)

**Product code:** 86812

**Guideline 1.4-2014, Procedures for Preparing Facility Systems Manuals **NEW!****

List: \$72.00 (ASHRAE Member: \$61.00)

**Product code:** 86820

**Guideline 1.5-2012, The Commissioning Process for Smoke Control Systems**

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86819

**Guideline 2-2010 (RA 2014), Engineering Analysis of Experimental Data**

List: \$41.00 (ASHRAE Member: \$35.00)

**Product code:** 86827

**Guideline 4-2008 (RA 2013), Preparation of Operating and Maintenance Documentation for Building Systems**

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86822

**Guideline 5-1994 (RA 2001), Commissioning Smoke Management Systems**

List: \$33.00 (ASHRAE Member: \$28.00)

**Product code:** 86805

**Guideline 6-2008, Refrigerant Information Recommended for Product Development and Standards**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86814

**Guideline 10-2011, Interactions Affecting the Achievement of Acceptable Indoor Environments**

List: \$54.00 (ASHRAE Member: \$46.00)

**Product code:** 86810

**Guideline 11-2009, Field Testing of HVAC Controls Components**

List: \$39.00 (ASHRAE Member: \$33.00)

**Product code:** 86826

**Guideline 12-2000, Minimizing the Risk of Legionellosis Associated with Building Water Systems**

List: \$43.00 (ASHRAE Member: \$37.00)

**Product code:** 86815

**Guideline 13-2014, Specifying Direct Digital Control Systems **NEW!****

List: \$95.00 (ASHRAE Member: \$81.00)

**Product code:** 86834

**Guideline 14-2014, Measurement of Energy, Demand, and Water Savings **NEW!****

List: \$95.00 (ASHRAE Member: \$81.00)

**Product code:** 86835

**Guideline 16-2014, Selecting Outdoor, Return, and Relief Dampers for Air-Side Economizer Systems**

List: \$58.00 (ASHRAE Member: \$48.00)

**Product code:** 86833

**Guideline 20-2010, Documenting HVAC&R Work Processes and Data Exchange Requirements**

List: \$39.00 (ASHRAE Member: \$33.00)  
Product code: 86828

**Guideline 21-2012, Guide for the Ventilation and Thermal Management of Batteries for Stationary Applications (IEEE Standard 1635-2012)**

List: \$54.00 (ASHRAE Member: \$46.00)  
Product code: 86831

**Guideline 22-2012, Instrumentation for Monitoring Central Chilled-Water Plant Efficiency**

List: \$54.00 (ASHRAE Member: \$46.00)  
Product code: 86832

**Guideline 24-2008, Ventilation and Indoor Air Quality in Low-Rise Residential Buildings**

List: \$54.00 (ASHRAE Member: \$46.00)  
Product code: 86836

**Guideline 26-2012, Guideline for Field Testing of General Ventilation Devices and Systems for Removal Efficiency In-Situ by Particle Size and Resistance to Flow**

List: \$39.00 (ASHRAE Member: \$33.00)  
Product code: 86842

**Guideline 28-2012, Guideline for Field Testing of General Ventilation Filtration Devices and Systems for Removal Efficiency In-Situ by Particle Size and Resistance to Flow**

List: \$39.00 (ASHRAE Member: \$33.00)  
Product code: 86848

**Guideline 29-2009, Guideline for the Risk Management of Public Health and Safety in Buildings**

List: \$54.00 (ASHRAE Member: \$46.00)  
Product code: 86857

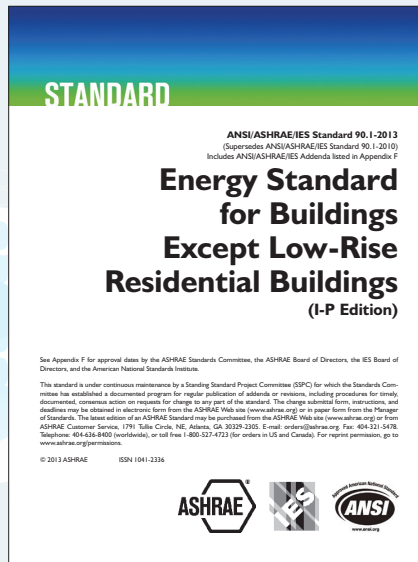
**Guideline 32-2012, Sustainable High-Performance Operations and Maintenance**

List: \$69.00 (ASHRAE Member: \$59.00)  
Product code: 86860

**Guideline 33-2013, Documenting Airflow and Containment Transport Modeling Studies**

List: \$41.00 (ASHRAE Member: \$35.00)  
Product code: 86864

## ANSI/ASHRAE/IES Standard 90.1-2013— Energy Standard for Buildings Except Low-Rise Residential Buildings



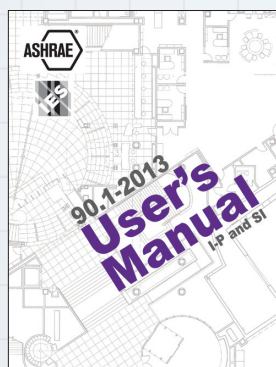
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## Complete Guidance to Ensure Compliance



### Standard 90.1-2013 User's Manual

This User's Manual provides detailed instruction for the design of commercial and high-rise residential buildings to ensure their compliance with ANSI/ASHRAE/IES Standard 90.1-2013.

This Manual helps users of Standard 90.1-2013 understand its principles and requirements and how to comply with them. It includes measurements in both I-P and SI units, sample calculations, application examples, forms to demonstrate compliance, and references to helpful resources and websites.

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(ASHRAE Member: \$98)  
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Shaping Tomorrow's  
Built Environment Today

# ASHRAE Membership Application

## Save Time. Join Online at [www.ashrae.org/join](http://www.ashrae.org/join)

Prices shown are valid from July 1, 2014 through June 30, 2015

### MEMBERSHIP

#### WHO ARE ASHRAE MEMBERS?

Members are represented by consulting engineers, mechanical contractors, building owners, employees of manufacturing companies, educational institutions, research organizations, government, architects, students or anyone concerned with HVAC&R for the built environment.

#### WHICH MEMBER TYPE IS RIGHT FOR YOU?

ASHRAE has three grades of membership awarded to applicants based on their experience and participation in the industry. Before you apply and select a member grade, we encourage you to visit the ASHRAE website to see the member grades and their corresponding member benefits. Prices shown are in US currency.

#### Member (\$199)

Available to anyone with 12 years or more ASHRAE approved experience in the HVAC&R industry.

#### Associate Member (\$199)

Available to anyone with less than 12 years of ASHRAE approved experience in the HVAC&R industry.

#### Affiliate Member

##### (\$53 first year, \$73 second, \$94 third)

Affiliate grade is for individuals who are new to ASHRAE (no previous membership in ASHRAE) and are age 30 or younger. It provides a great beginning for young professionals who wish to become involved in ASHRAE. (Does not include the annual member benefit of the ASHRAE Handbook).

**Privacy Policy:** By supplying your email address you are agreeing to receive electronic communications from ASHRAE, with the knowledge that you may opt-out of certain electronic communication once you become a member. Please visit [ashrae.org/privacypolicy](http://ashrae.org/privacypolicy) for additional information.

### MEMBER BENEFITS AND RESOURCES

#### PUBLICATIONS & RESOURCES

- ASHRAE Handbook (Available to Members and Associates) in print or CD, as well as a 12 month complimentary subscription to the Handbook Online, which provides online access to the most recent 4 volumes of the Handbook series.
- Monthly *ASHRAE Journal* in print and online
- Quarterly *High Performing Buildings* magazine in print and online
- e-Industry and eSociety electronic newsletters
- Access to members-only resources through ASHRAE.org, including the ASHRAE Journal and ASHRAE Research archives
- Discounts on over 300 of the industry's leading technical publications

#### PROFESSIONAL EDUCATION AND CAREER DEVELOPMENT

- Discounted registration for education courses through the ASHRAE Learning Institute, as well as ASHRAE certification programs
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- Gain industry knowledge, communication, and management skills by participating in ASHRAE technical programs or committees
- Post jobs or seek employment utilizing [www.ASHRAEjobs.com](http://www.ASHRAEjobs.com)

#### NETWORKING

- Connect locally, regionally and internationally with over 53,000 members in over 170 chapters worldwide
- Learn, share, and grow at the Annual and Winter Conferences, on ASHRAE technical committees, and [ASHRAExChange.org](http://ASHRAExChange.org)
- Participate in your local chapter or regional meetings and events

**Code of ethics:** By submitting this application you are agreeing to abide by the ASHRAE Code of Ethics, found at [ashrae.org/codeofethics](http://ashrae.org/codeofethics).

Completed applications or questions can be sent to ASHRAE via  
email: [membership@ashrae.org](mailto:membership@ashrae.org) | fax: 678-539-2129 | phone: 1-800-527-4723 or 404-636-8400  
mail: 1791 Tullie Circle, Atlanta, GA 30329

ASHRAE MEMBERSHIP APPLICATION. Please complete each applicable section. Prices valid from 7/01/2014 - 6/30/2015.

**1. Contact Information.**  Mr.  Miss  Ms.  Mrs.  Dr.      Birthday \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 (Month)      (Day)      (Year)

Name \_\_\_\_\_  
 (First)      (Middle)      (Last)      (Designation)

Primary Address    This is a  Home  Business      Alternate Address    This is a  Home  Business  
 Company Name \_\_\_\_\_      Company Name \_\_\_\_\_  
 Address \_\_\_\_\_      Address \_\_\_\_\_  
 City \_\_\_\_\_ State/Province \_\_\_\_\_      City \_\_\_\_\_ State/Province \_\_\_\_\_  
 Zip/Postal \_\_\_\_\_ Country \_\_\_\_\_      Zip/Postal \_\_\_\_\_ Country \_\_\_\_\_  
 E-mail \_\_\_\_\_      Alternate E-Mail \_\_\_\_\_  
 Telephone \_\_\_\_\_ Cell \_\_\_\_\_      Preferred Chapter  Home  Business  Other \_\_\_\_\_  
 Name/Chapter of referring member (if applicable): \_\_\_\_\_

**2. Member Grade.**  
 For additional information on member grades and benefits see reverse or visit ashrae.org.

Member — \$199 (must complete section 2a)  
 Associate Member — \$199  
 Affiliate Member — \$53 first year/\$73 second/\$94 third (new members, under 30)  
 Reinstate my previous membership. Previous member number: \_\_\_\_\_

**2a. Biographical Information.** ONLY Member Grade applicants must complete this section. Use additional sheets or attach resume if necessary. Associate and Affiliate grade applicants do not complete this section.

School	Location	Dates of Attendance	Degree/Course of Study
<b>Educational Record</b>			
Employer	Location	Dates of Employment	Position/Title
<b>Qualifying Work Experience</b>			

Professional Engineering Registration Information      License Number \_\_\_\_\_ Date Issued \_\_\_\_\_      Field of Registration \_\_\_\_\_ Location of Registration \_\_\_\_\_

**3. ASHRAE Journal.** Please answer the questions by entering the codes in the space provided.

Which best describes your title? \_\_\_\_\_

B- President	R- Sales Engineer
C- Partner	S- Purchasing Agent
D- Associate	T- Draftsperson
E- Owner	U- Estimator
F- Vice President	W- Technician
G- VP/Chief Engineer	X- Professor
K- Design Engineer	Y- Student
L- Proj./Application Eng.	Z- Librarian
O- Facility Eng./Mngr.v	ZZ- Other
P- Research/Devlpmnt.	

Which best describes your firm? \_\_\_\_\_

11- Consulting Eng.	43- Utility
12- Architectural & Eng	51- Manufacturer
15- Design/Build	61- Manufacturer's Rep.
21- Contractor	62- Sales Engineering
26- Property Mgmt & Dev.	71- Wholesaler/Dist.
31- Industrial Facility Mgt.	83- Library
41- Commercial Facility Mgt.	84- Association
42- Gov't,Healthcare, Education	91- Other

Which best describes your function? \_\_\_\_\_

1- Design/Application	5- Sales
2- Manufacturing	6- Research
3- Maintenance Operations	7- Teaching
4- Management	8- Other

**4. Areas of HVAC&R Interest.** Enter the code for your area of interest from the list below:  
 Code: \_\_\_\_\_

Heating	Refrigeration
A- Hydronic	S- Unitary Refrigeration
B- Forced Air	T- Commercial Refg.
C- Steam	U- Industrial Refg.
D- Process	V- Process Refg.
E- Service Water	W- Low Temp (<60F)
F- Solar	X- Refg. Components
G- Radiant	

Ventilating & AC	General Areas
H- Air Cleaning	1- Controls/Instrumentation
J- Industrial	2- Heat Transfer Fluid Flow
K- Clean/Computer Room	3- Pipes, valves, fittings
L- AC Equip. <20 tons	4- Refg. & Lubrications
M- AC Equip. 20-200 tons	5- Sound & Vibration
N- AC Equip. > 200 tons	6- Insulation
P- Air Handling Systems	7- Energy Recovery
Q- Evaporative Coolers	8- Food Application
R- IEQ	9- Health, Safety
	10- Commissioning

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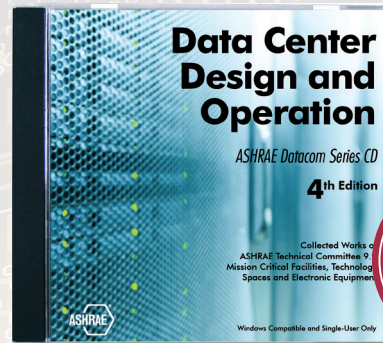
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