

Chapter 13 Dehumidifiers

By Lew Harriman & Reinhold Kittler



Ashrae Humidity Control Design Guide

Jinyue Yan

Ashrae Humidity Control Design Guide:

Humidity Control Design Guide for Commercial and Institutional Buildings Lewis G. Harriman, Geoffrey Wilmot Brundrett, Reinhold Kittler, 2001 This 4 color hardback book is an easy to read user friendly manual aimed at HVAC designers concerned with humidity control It helps to define the purpose of a humidity control project and provides information on the effects of humidity on mold mildew bacteria viruses and overall human health and comfort The text also discusses how humidity control equipment works and the importance of managing air pressure in a building Schools office buildings nursing homes and laboratories are discussed in depth along with other types of buildings The book provides checklists to help architects owners contractors and building and HVAC system designers get the job done guickly and accurately ASHRAE Humidity Control Design Guide for Commercial and Institutional Buildings Lew Research Project 1047 Harriman, Geoffrey Brundrett, Reinholld Kittler, 2012-04-09 This publication is a Chinese language abridged translastion of Humidity Control Design Guide for Commercial and Institutional Buildings product code 90421 This book is designed to help technical professionals design humidity control systems for commercial buildings The Guide provides the HVAC designer with complete coverage of humidity control from basic principles to real world design advice and is organized in a logical easy to follow layout This book has been translated and distributed by Munters with permission from ASHRAE No part of this book may be reproduced without permission in writing from ASHRAE or from the original holder of the copyright as indicated in the text except by a reviewer who may quote brief passages or reproduce illustrations in a review with appropriate credit nor may any part of this book be stored in a retrieval system or transmitted in any form by any means electronic photocopying recording or other without permission in writing from ASHRAE or from the original copyright holder

,2006 This book provides a thorough introduction to how Heating Ventilating and Air Conditioning HVAC systems control temperature air quality and air circulation in a conditioned space Handbook of Clean Energy Systems, 6 Volume Set
Jinyue Yan,2015-06-22 The Handbook of Clean Energy Systems brings together an international team of experts to present a comprehensive overview of the latest research developments and practical applications throughout all areas of clean energy systems Consolidating information which is currently scattered across a wide variety of literature sources the handbook covers a broad range of topics in this interdisciplinary research field including both fossil and renewable energy systems The development of intelligent energy systems for efficient energy processes and mitigation technologies for the reduction of environmental pollutants is explored in depth and environmental social and economic impacts are also addressed Topics covered include Volume 1 Renewable Energy Biomass resources and biofuel production Bioenergy Utilization Solar Energy Wind Energy Geothermal Energy Tidal Energy Volume 2 Clean Energy Conversion Technologies Steam Vapor Power Generation Gas Turbines Power Generation Reciprocating Engines Fuel Cells Cogeneration and Polygeneration Volume 3 Mitigation Technologies Carbon Capture Negative Emissions System Carbon Transportation Carbon Storage Emission

Mitigation Technologies Efficiency Improvements and Waste Management Waste to Energy Volume 4 Intelligent Energy Systems Future Electricity Markets Diagnostic and Control of Energy Systems New Electric Transmission Systems Smart Grid and Modern Electrical Systems Energy Efficiency of Municipal Energy Systems Energy Efficiency of Industrial Energy Systems Consumer Behaviors Load Control and Management Electric Car and Hybrid Car Energy Efficiency Improvement Volume 5 Energy Storage Thermal Energy Storage Chemical Storage Mechanical Storage Electrochemical Storage Integrated Storage Systems Volume 6 Sustainability of Energy Systems Sustainability Indicators Evaluation Criteria and Reporting Regulation and Policy Finance and Investment Emission Trading Modeling and Analysis of Energy Systems Energy vs Development Low Carbon Economy Energy Efficiencies and Emission Reduction Key features Comprising over 3 500 pages in 6 volumes HCES presents a comprehensive overview of the latest research developments and practical applications throughout all areas of clean energy systems consolidating a wealth of information which is currently scattered across a wide variety of literature sources In addition to renewable energy systems HCES also covers processes for the efficient and clean conversion of traditional fuels such as coal oil and gas energy storage systems mitigation technologies for the reduction of environmental pollutants and the development of intelligent energy systems Environmental social and economic impacts of energy systems are also addressed in depth Published in full colour throughout Fully indexed with cross referencing within and between all six volumes Edited by leading researchers from academia and industry who are internationally renowned and active in their respective fields Published in print and online The online version is a single publication i e no updates available for one time purchase or through annual subscription Data Center Handbook Hwaiyu Geng, 2021-04-27 DATA CENTER HANDBOOK Written by 59 experts and reviewed by a seasoned technical advisory board the Data Center Handbook is a thoroughly revised one stop resource that clearly explains the fundamentals advanced technologies and best practices used in planning designing building and operating a mission critical energy efficient sustainable data center This handbook in its second edition covers anatomy ecosystem and taxonomy of data centers that enable the Internet of Things and artificial intelligent ecosystems and encompass the following SECTION 1 DATA CENTER OVERVIEW AND STRATEGIC PLANNING Megatrends the IoT artificial intelligence 5G network cloud and edge computing Strategic planning forces location plan and capacity planning Green design construction guidelines and best practices Energy demand conservation and sustainability strategies Data center financial analysis risk management SECTION 2 DATA CENTER TECHNOLOGIES Software defined environment Computing storage network resource management Wireless sensor networks in data centers ASHRAE data center guidelines Data center telecommunication cabling BICSI and TIA 942 Rack level and server level cooling Corrosion and contamination control Energy saving technologies and server design Microgrid and data centers SECTION 3 DATA CENTER DESIGN CONSTRUCTION Data center site selection Architecture design rack floor plan and facility layout Mechanical design and cooling technologies Electrical design and UPS Fire protection Structural design Reliability

engineering Computational fluid dynamics Project management SECTION 4 DATA CENTER OPERATIONS TECHNOLOGIES Benchmarking metrics and assessment Data center infrastructure management Data center air management Disaster recovery and business continuity management The Data Center Handbook Plan Design Build and Operations of a Smart Data Center belongs on the bookshelves of any professionals who work in with or around a data center U.S. Courts Design Fundamentals of HVAC Control Systems Robert McDowall, 2009-08-20 A hard copy companion to the eLearning course that serves as a practical guide to the principles and characteristics of controls and how to apply them in the use selection specification and design of controls systems Fundamentals of HVAC Control Systems Steven T. Taylor, Ross Montgomery, Robert McDowall, Heating Ventilation and Air Conditioning HVAC control systems are omnipresent in modern buildings This book is an introduction to all those involved in the specification design manufacture installation operation or maintainance of these systems The book explains Control theory and how to evaluate select position and sequence the appropriate type of control The electrical knowledge needed to understand controls and the use of electrical circuit drawings The various types of valves and dampers and their selection installation and operation Terminology and attributes of sensors the selection of moisture sensors pressure flow and auxiliary devices Self powered and system powered controls Electric controls control diagrams and control logic The components of pneumatic systems and control applications diagrams Wiring conventions application specific electronic controllers and how to use them in HVAC applications. The use of written specifications schedules and drawings to clearly identify what is to be installed how it is to be installed and how it is expected to operate Direct Digital Controls DDC components their inputs and outputs and the programming of DDC routines DDC Networks and Protocols DDC Specification Installation and Commissioning After completing this course you will understand Control theory and how to evaluate select position and sequence the appropriate type of control The electrical knowledge needed to understand controls and the use of electrical circuit drawings The various types of valves and dampers and their selection installation and operation Terminology and attributes of sensors the selection of moisture sensors pressure flow and auxiliary devices Self powered and system powered controls Electric controls control diagrams and control logic The components of pneumatic systems and control applications diagrams Wiring conventions application specific electronic controllers and how to use them in HVAC applications The use of written specifications schedules and drawings to clearly identify what is to be installed how it is to be installed and how it is expected to operate Direct Digital Controls DDC components their inputs and outputs and the programming of DDC routines DDC Networks and Protocols DDC Specification Installation and Commissioning Fundamentals of HVAC Systems Robert McDowall, 2006-12-13 Heating Ventilation and Air Conditioning HVAC systems are omnipresent in modern buildings This book is an introduction for all those involved in the specification design manufacture installation operation or maintainance of these systems Developed jointly with the ASHRAE Learning Institute the leading and recognised technical experts in the

industry This Inch Pound edition is primarily for use in US markets An SI version is also available on ISBN 0123739985 The book explains The objectives to be achieved by a system in terms of environmental control The description of a system including primary equipment means of distribution space and load determination and operating strategy The basic function of components that form HVAC systems The layout and functioning of common HVAC systems including all air systems air water systems and all water systems The strategies for operating systems and their basic means of control Identifying the most suitable type of system for different types of application Air conditioning is a major industry and growing Shows how systems operate and how to select design and operate them efficiently to minimise installation cost and ongoing energy cost Endorsed by and developed with ASHRAE the leading trade body and recognised technical experts Provides a thorough introduction to how HVAC systems function in controlling temperature air quality and air circulation in a controlled space

Fundamentals of HVAC Control Systems Ross Montgomery, Robert McDowall, 2008 Annotation This book provides a thorough introduction and a practical guide to the principles and characteristics of controls and how to apply them in the use selection specification and design of control systems

The Top Books of the Year Ashrae Humidity Control Design Guide The year 2023 has witnessed a remarkable surge in literary brilliance, with numerous compelling novels enthralling the hearts of readers worldwide. Lets delve into the realm of popular books, exploring the fascinating narratives that have charmed audiences this year. Ashrae Humidity Control Design Guide: Colleen Hoovers "It Ends with Us" This heartfelt tale of love, loss, and resilience has captivated readers with its raw and emotional exploration of domestic abuse. Hoover skillfully weaves a story of hope and healing, reminding us that even in the darkest of times, the human spirit can succeed. Ashrae Humidity Control Design Guide: Taylor Jenkins Reids "The Seven Husbands of Evelyn Hugo" This captivating historical fiction novel unravels the life of Evelyn Hugo, a Hollywood icon who defies expectations and societal norms to pursue her dreams. Reids compelling storytelling and compelling characters transport readers to a bygone era, immersing them in a world of glamour, ambition, and self-discovery. Discover the Magic: Delia Owens "Where the Crawdads Sing" This captivating coming-of-age story follows Kya Clark, a young woman who grows up alone in the marshes of North Carolina. Owens weaves a tale of resilience, survival, and the transformative power of nature, captivating readers with its evocative prose and mesmerizing setting. These top-selling novels represent just a fraction of the literary treasures that have emerged in 2023. Whether you seek tales of romance, adventure, or personal growth, the world of literature offers an abundance of compelling stories waiting to be discovered. The novel begins with Richard Papen, a bright but troubled young man, arriving at Hampden College. Richard is immediately drawn to the group of students who call themselves the Classics Club. The club is led by Henry Winter, a brilliant and charismatic young man. Henry is obsessed with Greek mythology and philosophy, and he quickly draws Richard into his world. The other members of the Classics Club are equally as fascinating. Bunny Corcoran is a wealthy and spoiled young man who is always looking for a good time. Charles Tavis is a guiet and reserved young man who is deeply in love with Henry. Camilla Macaulay is a beautiful and intelligent young woman who is drawn to the power and danger of the Classics Club. The students are all deeply in love with Morrow, and they are willing to do anything to please him. Morrow is a complex and mysterious figure, and he seems to be manipulating the students for his own purposes. As the students become more involved with Morrow, they begin to commit increasingly dangerous acts. The Secret History is a brilliant and suspenseful novel that will keep you guessing until the very end. The novel is a cautionary tale about the dangers of obsession and the power of evil.

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