1. Record Nr. UNINA9910437775703321

Autore	Liu Xiaohua
Titolo	Temperature and Humidity Independent Control (THIC) of Air-conditioning System / / by Xiaohua Liu, Yi Jiang, Tao Zhang
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013
ISBN	3-642-42222-5
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (363 p.)
Disciplina	536.7 621.042 621.4021 658.26
Soggetti	Energy consumption Building construction Thermodynamics Heat engineering Heat - Transmission Mass transfer Energy systems Energy Efficiency Building Physics, HVAC Engineering Thermodynamics, Heat and Mass Transfer Energy Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Characteristics of conventional air-conditioning systems -- The basic idea of the THIC air-conditioning system -- Key components of the THIC system- Indoor terminals -- Key components of the THIC system- Outdoor air handling methods -- Key components of the THIC system- Outdoor air processor using liquid desiccant -- Key components of the THIC system- High temperature cooling sources -- Design and operation of THIC systems -- Application cases of THIC systems -- Development tendencies and perspectives of the THIC systems.

Sommario/riassunto

Temperature and Humidity Independent Control (THIC) of Air-conditioning System focuses on temperature and humidity independent control (THIC) systems, which represents a new concept and new approach for indoor environmental control. This book presents the main components of the THIC systems, including dehumidification devices, high-temperature cooling devices and indoor terminal devices. Other relevant issues, such as operation and control strategy and case studies, are also included. This book is intended for air-conditioning system designers and engineers as well as researchers working with indoor environments. Xiaohua Liu is an associate professor at the Building Energy Research Center, Tsinghua University, China. Yi Jiang is a member of the Chinese Academy of Engineering, the director of the Building Energy Research Center, Tsinghua University, China and the director of the China-USA Joint Research Center on Clean Energy. Tao Zhang is a Ph.D. candidate at the Building Energy Research Center, Tsinghua University, China.