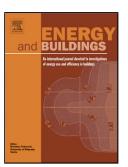
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### ACCEPTED MANUSCRIPT

# A review on temperature and humidity control methods focusing on air-conditioning equipment and control algorithms applied in small-to-medium-sized buildings

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#### Highlights

- A comprehensive review on temperature and humidity control methods applied in small-to-medium-sized buildings was provided
- Control methods were summarized into two kinds, i.e., hardware-based decoupled (HWBD) control and software-based decoupled (SWBD) control
- Principles, merits, and obstacles of these two methods are presented
- Potential benefits of energy saving and better control performance brought by combining the two methods are discussed

#### Abstract

Humidity is an important factor that influences both thermal comfort and indoor air quality. Air-conditioning (A/C) systems in large-scale buildings can employ different equipment to control temperature and humidity independently. However, A/C systems commonly seen in small- and medium-sized buildings have no specific device to deal with moisture due to space limitations, which may leave humidity in these buildings

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