
Introduction to the renovated “Thermal Environment Facility”

- Facility overview, performance evaluation tests, and deployment of use cases -

Seiya SASAKI, Kazuaki MORI

In recent years, the spread of ZEB (Zero Energy Buildings) and abnormal weather conditions have necessitated further advancements in thermal environment technology. Our technical research institute possesses a thermal environment facility as a venue for verification, which, after renovations, resumed operations in the fiscal year 2023. The renovated facility features two test rooms simulating indoor and outdoor environments. Each test room allows for changes in temperature, humidity, and room pressure. The indoor environment test room can switch between wall and floor air outlets, while the outdoor environment test room can conduct solar radiation and rainfall tests. This enables the verification of indoor comfort, the testing of new air conditioning systems, and the examination of construction methods under various climatic conditions. This report presents an overview of the facility, performance evaluation tests conducted in fiscal year 2023, and use cases.
