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Solar air conditioning at bus stations

Overview

Can radiant cooling be used in bus shelters?

Fig. 2. Representative schema of the conceptual solution. Regarding the main radiant cooling technology, Fig. 3 shows the layered system designed for the side and top envelope surfaces. The system proposed is compatible with the dimensions of existing bus shelters so it can be installed in these without affecting the useful space inside them.

Can radiant cooling modules be installed on public transport stops?

This study has designed a process for implementing a series of radiant cooling modules on the surface of public transport stops. A prototype was designed and evaluated by preparing a climate chamber that was fully sensorized to simulate extreme climate conditions.

Are bus stops energy-efficient?

However, conventional bus stops may retain heat and humidity,reating a sultry and uncomfortable sensation . For this reason, finding an energy-efficient solution for bus stops to provide a thermally comfortable environment for short stays is a challenge that still must be overcome in large cities.

How does a bus stop affect the cooling flux per square metre?

Top: high radiation; centre: medium radiation; bottom: low radiation. Consequently, both Fig. 13 and Fig. 14 show that the shelter provided by the bus stop was no longer effective at air and radiant temperatures below 30 °C. In these circumstances, the cooling flux per square metre was predominantly by convection.

Solar air conditioning at bus stations

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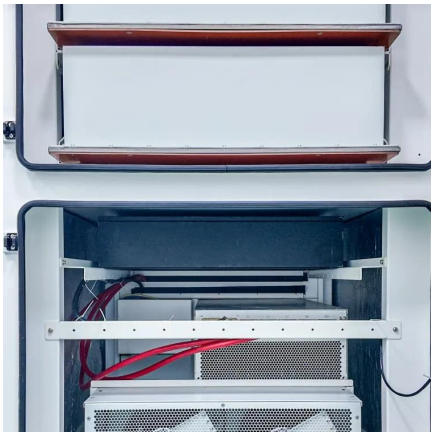

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