

Athens High Temperature Solar System





Overview

What is high-temperature solar?

High-temperature solar is concentrated solar power (CSP). It uses specially designed collectors to achieve higher temperatures from solar heat that can be used for electrical power generation. In this chapter, we discuss different configurations of concentrating collectors and advancements in solar thermal power systems.

What is high-temperature solar technology (HTST)?

High-temperature solar technology (HTST) is known as concentrated solar power (CSP). It uses specially designed collectors to achieve higher temperatures from solar heat that can be used for electrical power generation.

Is Athens a heat island?

We investigate the urban heat island (UHI) characteristics in the city of Athens, Greece, which is one of Europe's largest metropolitan complexes with a population of approximately 3.7 million inhabitants.

What is the average temperature in Athens?

The mean seasonal values of the UHI in Athens were estimated at 5.4 °C in the summer, 3.2 °C in the autumn, 2.1 °C in the winter, and 3.1 °C in the spring.



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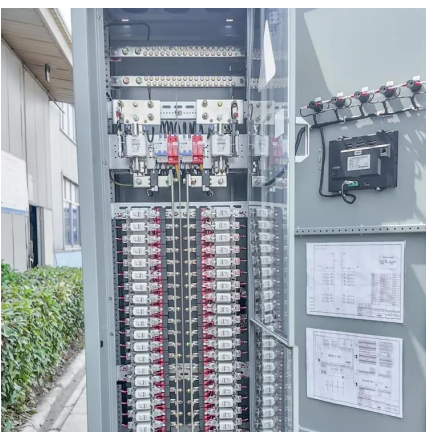


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The thermo-fluid modeling of high-temperature solar thermal systems is essential to simulate, control and optimize the thermal performance of concentrating receiver collectors.

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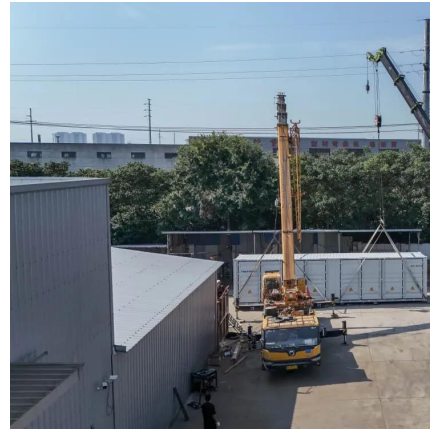
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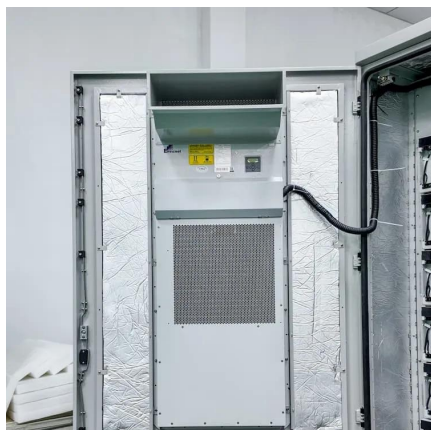


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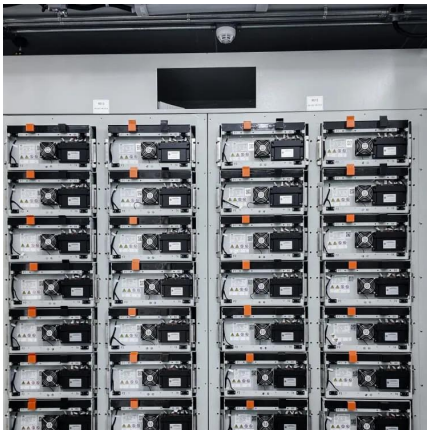
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