KREATYWNY ENERGY POLSKA

Solar power generation and thermodynamic analysis

Overview

This study offers a comprehensive assessment of the thermodynamic performance of a novel solar-based multigeneration system, which caters to the energy needs of a sustainable community by producing electricity, cooling, heating, and freshwater. This study investigates three configurations of power and freshwater cogeneration systems, addressing the urgent energy and freshwater availability challenges.

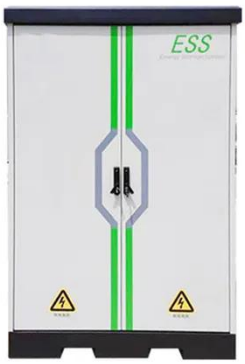
Solar power generation and thermodynamic analysis

Thermodynamic Analysis and Performance Assessment of a Novel ...

This study offers a comprehensive assessment of the thermodynamic performance of a novel solar-based multigeneration system, which caters to the energy needs of a sustainable ...

Thermodynamic analysis of a novel combined cycle based on solar ...

Following a thermodynamic analysis of various configurations and a comparison of energy, exergy, power generation capacity, and freshwater production, the best configuration is ...



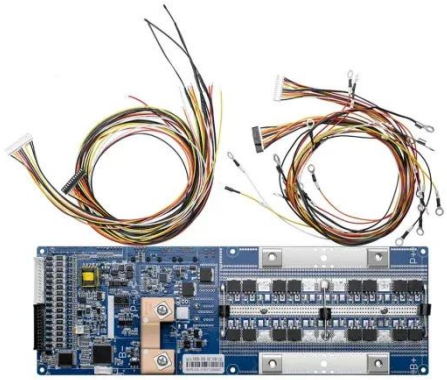
Thermodynamic analysis and performance enhancement of an ...

Renewable-based systems provide a path to carbon neutrality but face reliability challenges due to intermittency. This study investigates Tenerife Island's potential for integrating ...

Thermodynamic Assessment of

Solar-Powered Hydrogen Production ...

To overcome this, a comparative analysis has been performed between the use of parabolic trough collectors (PTCs) and solar power tower (SPT) for green hydrogen production with ...



A comprehensive thermodynamic assessment of an innovative solar

In the present research, an innovative solar and geothermal energy-assisted multigeneration plant for electricity, cooling, hydrogen, fresh water, and heating is developed and ...

4-E analysis and multiple objective optimizations of a novel solar

The contemporary study addressed all critical factors and explains the impact of solar irradiance, mass flow rate of molten salt and steam, turbine inlet pressure, and turbine inlet ...

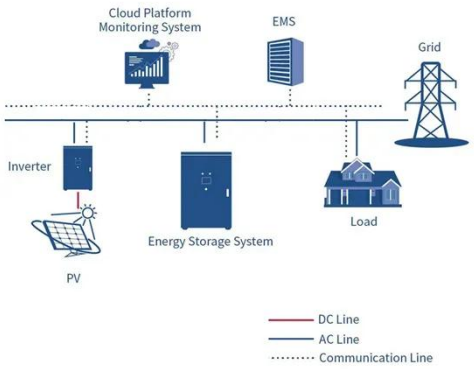
Thermodynamic Analysis and Comparison of Two Small-Scale Solar

In this study, two schemes of solar electrical power generation are designed and compared according to solar

collection area minimization. The one comprises the parabolic trough ...

Thermodynamic, Exergy, and Environmental Evaluation of Hybrid

Through comprehensive exergy analysis, this study examines the environmental impact of energy exploration and generation using thermodynamic parameters.



Thermodynamic assessment of a novel solar powered trigeneration ...

In the current study, a novel trigeneration system was presented to utilize the SPT for combined power generation, heating, and cooling. The trigeneration system consists a helium ...

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