

Technical parameters of automated solar-powered containerized steel plant



Overview

How can solar energy improve steel production?

The integration of solar energy is helping usher in a new era of more sustainable steel production, with facilities making the switch to renewable power.

Can solar power power steel production?

Traditional steel production uses large amounts of fossil fuel energy to generate the temperatures needed, but the industry is working hard to find alternative ways of powering this process. Indeed, three of the world's top steel producing companies are already taking the leap towards solar powered steel production.

Can solar power make steel more sustainable?

The industry has been hard at work on improving the efficiency of its operations – producing a tonne of steel takes 40% less energy than it did in 1960 – and solar is set to play a key role in improving steel's sustainability. Using solar power in its production allows EVRAZ to create more sustainable steel.

What factors affect the integration of steel plants with photovoltaic power plants?

This paper comprehensively considers five factors in the matching results: carbon reduction, electricity transmission, supply conditions, grid fluctuations, and cost. Analytic hierarchy process (AHP) is then used to identify the steel plants suitable for integration with photovoltaic power plants.

Technical parameters of automated solar-powered containerized steel structures



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Proceedings of

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