

Solar DSG System





Overview

What is solar direct steam generation (DSG)?

Solar direct steam generation (DSG) systems are well suited for process steam applications and are able to provide steam at the pressure required by common industrial processes. Nevertheless, reliable control has always been a challenge for solar DSG system hindering its wider adoption.

What is the control strategy for solar DSG systems?

In this paper, a control strategy for solar DSG systems is presented. The control strategy is based on proportional-integral-derivative (PID) control theory combined with model-based feedforward control. Experimental data demonstrate that the control strategy provides good performance in terms of stability and setpoint tracking.

How does a DSG system work?

2017, *Advances in Concentrating Solar Thermal Research and Technology*
M.A. Silva-Pérez In the DSG configuration, water enters the solar receiver at low temperature and supercritical pressure and is heated to temperatures above 550°C. No additional heat exchanger or steam generator is required unless the plant includes an indirect-type TES.

What does DSG stand for?

In Proc., 2009 Int. Conf. on Sustainable Power Generation and Supply, 1–5. New York: IEEE. Abstract Distributed solar generation (DSG) has been growing over the previous years because of its numerous advantages of being sustainable, flexible, reliable, and increasingly affordable. DSG is .



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