Solar molten salt thermal power generation

Overview

Completed the TES system modeling and two novel changes were recommended (1) use of molten salt as a HTF through the solar trough field, and (2) use the salt to not only create steam but also to preheat the condensed feed water for Rankine cycle. Reddy, “Thermodynamic. Lowest levelized cost of electricity (LCOE) for solar plant configurations in Riyadh, Saudi Arabia. PV+ETES system has PV charging thermal energy storage (power-to-heat), which discharges thru a heat engine. Nighttime fractions correspond to 3, 6, 9, and 12 hours of storage. By efficiently transporting and storing massive amounts of thermal energy, these fluids enable the conversion of heat into the high-pressure. This study compares a novel molten salt tank based on a refractory concrete formulation with a conventional design made from 347H stainless steel over the period 2015–2025.

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Based Nanofluids as Thermal Energy

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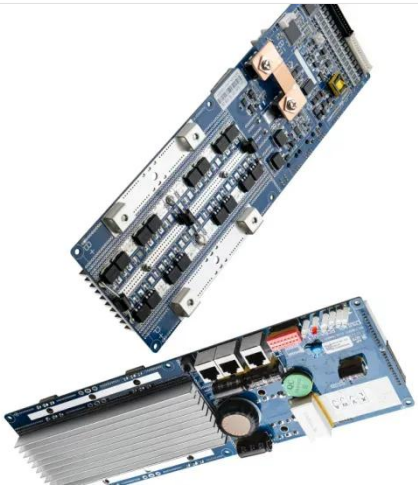

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