

Title (en)

SOLAR THERMAL POWER PLANT AND METHOD FOR OPERATING A SOLAR THERMAL POWER PLANT

Title (de)

SOLARTHERMISCHES KRAFTWERK UND VERFAHREN ZUM BETRIEB EINES SOLARTHERMISCHEN KRAFTWERKS

Title (fr)

CENTRALE HÉLIOTHERMIQUE ET PROCÉDÉ POUR FAIRE FONCTIONNER UNE CENTRALE HÉLIOTHERMIQUE

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Application

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Abstract (en)

[origin: WO2011080021A2] The invention relates to a solar thermal power plant (1) comprising a solar collector steam generator unit (2) for generating steam, a solar collector steam superheater unit (4), downstream of the solar collector steam generator unit (2), for superheating the steam, and a steam turbine (40) which is connected to an outlet of the solar collector steam superheater unit (4) via a steam conduit system (13), superheated steam being supplied to the steam turbine when in use. The solar thermal power plant (1) comprises an intermediate storage (20) which is connected to the steam conduit system (13) at least in a first high-temperature storage connecting point (HA1) interposed between the solar thermal steam superheater unit (4) and the steam turbine (40) to remove steam superheated in a storage mode from the steam conduit system (13) and which comprises a heat reservoir (22, 23, 24) in which thermal energy is drained from the steam fed into during the storage mode and is accumulated and the stored thermal energy is given off to the steam in an extraction mode, said steam being fed to the steam conduit system (13) from the intermediate storage (20). The intermediate storage is connected to a condenser (65) and/or a relaxation device (89) of the solar thermal power plant (1) in a low-temperature storage connecting point (NA3). The invention also relates to a method for operating said solar thermal power plant (1).

IPC 8 full level

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