Title (en)

ENERGY STORAGE DEVICE WITH OPEN CHARGING CIRCUIT FOR STORING SEASONALLY OCCURRING EXCESS ELECTRICAL ENERGY

Title (de)

ENERGIESPEICHERVORRICHTUNG MIT OFFENEM LADEKREISLAUF ZUR SPEICHERUNG SAISONAL ANFALLENDER ELEKTRISCHER ÜBERSCHUSSENERGIE

Title (fr)

DISPOSITIF D'ACCUMULATION D'ÉNERGIE PRÉSENTANT UN CIRCUIT DE CHARGE OUVERT POUR ACCUMULER L'ÉNERGIE ÉLECTRIQUE EN EXCÈS PRODUITE EN FONCTION DES SAISONS

Publication

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Application

EP 12788178 A 20121113

Priority

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Abstract (en)

[origin: WO2013087321A2] The invention relates to an energy storage device (1) for storing thermal energy, with a charging circuit (2) for a working gas (3), comprising a compressor (4), a heat accumulator (5) and an expansion turbine (6), the compressor (4) and the expansion turbine (6) being arranged on a common shaft (14), and the compressor (4) being connected on the outlet side to the inlet of the expansion turbine (6) via a first line (7) for the working gas (3), and the heat accumulator (5) being wired into the first line (7), wherein the compressor (4) is connected on the inlet side to a line (30), which is open to the atmosphere (A), and the expansion turbine (6) is connected on the outlet side to a line (31), which is open to the atmosphere (A) in such a way that a circuit open to the ambient air is formed, and wherein the expansion turbine (6) is connected to the heat accumulator (5) via a line (33) for a hot gas in such a way that the working gas (3) in the expansion turbine (6) can be heated by heat from the heat accumulator (5).

IPC 8 full level

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