

Title (en)
HEAT STORE FOR POWER PLANT CAPACITIES

Title (de)
WÄRMESPEICHER FÜR KRAFTWERKSLEISTUNGEN

Title (fr)
ACCUMULATEUR THERMIQUE POUR CAPACITÉ DE PRODUCTION D'UNE CENTRALE

Publication
EP 2836782 A1 20150218 (DE)

Application
EP 13713796 A 20130321

Priority
• DE 102012205771 A 20120410
• EP 2013055914 W 20130321

Abstract (en)
[origin: WO2013152934A1] The invention relates to a heat store (1) for storing at least 100 MWh of thermal energy of a relatively warmer gas (2) in a charging state and for giving off thermal energy to a relatively colder gas (2) in a discharging state. In the charging state, said heat store has at least one inflow surface (10), provided with inflow openings (11), for introducing the gas (2), and at least one outflow surface (20), provided with outflow openings (21), for discharging the gas (2) after giving off heat to a granular heat storage medium (40), wherein the inflow surface (10) is formed at least in certain portions into a channel (12) which is surrounded, in particular completely, by the outflow surface (20), and wherein an intermediate space (30) in which the granular heat storage medium (40) is arranged is defined between the inflow surface (10) and the outflow surface (20).

IPC 8 full level
F28D 20/00 (2006.01)

CPC (source: EP US)
F28D 17/005 (2013.01 - US); **F28D 17/04** (2013.01 - US); **F28D 20/0056** (2013.01 - EP US); **F28D 2020/0017** (2013.01 - US); **F28D 2020/0021** (2013.01 - US); **F28D 2020/0069** (2013.01 - EP US); **F28D 2020/0078** (2013.01 - US); **F28F 9/0273** (2013.01 - EP US); **Y02E 60/14** (2013.01 - EP US)

Citation (search report)
See references of WO 2013152934A1

Citation (examination)
DE 102011000655 A1 20110811 - ATHMANN UWE [DE], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102012205771 A1 20131010; CN 104303004 A 20150121; CN 104303004 B 20170222; EP 2836782 A1 20150218; US 10082341 B2 20180925; US 2015114590 A1 20150430; WO 2013152934 A1 20131017

DOCDB simple family (application)
DE 102012205771 A 20120410; CN 201380024157 A 20130321; EP 13713796 A 20130321; EP 2013055914 W 20130321; US 201314390976 A 20130321