

Title (en)
DEVICE FOR STORING A LIQUID

Title (de)
VORRICHTUNG ZUR SPEICHERUNG EINER FLÜSSIGKEIT

Title (fr)
DISPOSITIF DE STOCKAGE DE LIQUIDE

Publication
EP 3143351 A1 20170322 (DE)

Application
EP 15724565 A 20150513

Priority
• EP 14168410 A 20140515
• EP 2015060655 W 20150513

Abstract (en)
[origin: WO2015173331A1] A device for storing a liquid having at least two series-connected storage cells (3), wherein hot liquid can be fed to or withdrawn from a first storage cell (3) via a first central line (35) and cold liquid can be fed to or withdrawn from a last one of the series-connected storage cells (3) via a second central line (33), and wherein the temperature of the liquid in the series-connected storage cells (3) decreases cell by cell from the first storage cell (3) to the last storage cell (3), and the individual storage cells (3) are connected to one another in each case via a connection (5; 7) from the lower region (11) of the warmer storage cell (3) to the upper region (15) of the colder storage cell (3), and wherein at least one storage cell (3) is closed with a cover (27) such that a gas space (25) forms between the liquid in the storage cell (3) and the cover (27), wherein a gas line (29) branches off from at least one gas space (25), which gas line is submerged in the liquid of a colder storage cell (3) or in the liquid in the connection (5; 7) between two adjacent storage cells (3), wherein at least one of the adjacent storage cells (3) is at a lower temperature than the storage cell (3) from whose gas space (25) the gas line (29) branches off.

IPC 8 full level
F28D 20/00 (2006.01)

CPC (source: CN EP US)
F28D 20/0034 (2013.01 - CN EP US); **F28D 20/0039** (2013.01 - US); **F28D 2020/0047** (2013.01 - CN EP US);
F28D 2020/0082 (2013.01 - CN EP US); **F28D 2020/0086** (2013.01 - US); **Y02E 60/14** (2013.01 - EP US)

Citation (search report)
See references of WO 2015173331A1

Citation (examination)
EP 2840344 A1 20150225 - SIEMENS AG [DE]

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)
WO 2015173331 A1 20151119; AU 2015261456 A1 20161201; AU 2015261456 B2 20190912; CL 2016002902 A1 20170203;
CN 106662411 A 20170510; CN 106662411 B 20190301; EP 3143351 A1 20170322; IL 248920 A0 20170131; MX 2016014992 A 20170331;
SA 516380307 B1 20200726; US 10605542 B2 20200331; US 2017074597 A1 20170316; ZA 201608492 B 20180530

DOCDB simple family (application)
EP 2015060655 W 20150513; AU 2015261456 A 20150513; CL 2016002902 A 20161115; CN 201580038215 A 20150513;
EP 15724565 A 20150513; IL 24892016 A 20161113; MX 2016014992 A 20150513; SA 516380307 A 20161115; US 201515310543 A 20150513;
ZA 201608492 A 20161208