

Title (en)
GEOTHERMAL SYSTEM

Title (de)
GEOTHERMISCHES SYSTEM

Title (fr)
SYSTÈME GÉOTHERMIQUE

Publication
EP 4056923 A1 20220914 (EN)

Application
EP 21382204 A 20210312

Priority
EP 21382204 A 20210312

Abstract (en)
The present invention belongs to the field of energy and heat exchange and relates to the use of geothermal energy for heating and cooling applications by means of a geothermal system comprising at least one geothermal cistern (1, 1A, 1B) configured for being buried in the ground, the cistern (1, 1A, 1B) exchanging heat with the ground; each cistern (1, 1A, 1B) comprising a perimetral surface (1.1), said perimetral surface (1.1) comprising a first opening (1.1.1) and a second opening (1.1.2), a first pipe (2) coupled to the first opening (1.1.1) of at least one cistern (1, 1A, 1B), the first pipe (2) having a first end (2.1) located at a lower part of said cistern (1, 1A, 1B); a second pipe (3) coupled to the second opening (1.1.2) of at least one cistern (1, 1A, 1B), the second pipe (3) having a second end (3.1) located at an upper part of said cistern (1, 1A, 1B); a geothermal heat pump (5) coupled to the first pipe (2) and to the second pipe (3). Two or more cisterns may be connected either in series or in parallel.

IPC 8 full level
F24T 10/30 (2018.01)

CPC (source: EP)
F24T 10/30 (2018.04); **F24T 2010/53** (2018.04)

Citation (search report)
• [X] US 2020064027 A1 20200227 - PEELE GARY SCOTT [US]
• [X] EP 2034252 B1 20151111 - DYNAMIC BLUE HOLDING GMBH [DE]
• [X] FR 2295361 A1 19760716 - COUSTAU ROBERT [FR]
• [X] DE 102010007662 A1 20110811 - LEDWON ANTON [DE]
• [X] US 2020116397 A1 20200416 - YASUMOTO SATOSHI [JP]
• [X] CN 212006299 U 20201124 - SHANGHAI SINYO NEW ENERGY TECH CO LTD
• [X] JP 2002310524 A 20021023 - KUBOTA KK

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)
EP 4056923 A1 20220914

DOCDB simple family (application)
EP 21382204 A 20210312