

Title (en)

HEAT EXCHANGE SYSTEM WITH A HEAT EXCHANGE CHAMBER IN A SOIL EXCAVATION, METHOD FOR MANUFACTURING THE HEAT EXCHANGE SYSTEM AND METHOD FOR EXCHANGING HEAT BY USING THE HEAT EXCHANGE SYSTEM

Title (de)

WÄRMEAUSTAUSCHSYSTEM MIT EINER WÄRMEAUSTAUSCHKAMMER IN EINEM BODENAUSHUB, VERFAHREN ZUR HERSTELLUNG DES WÄRMEAUSTAUSCHSYSTEMS UND VERFAHREN ZUM WÄRMETAUSCH ANHAND DES WÄRMEAUSTAUSCHSYSTEMS

Title (fr)

SYSTÈME D'ÉCHANGE DE CHALEUR À CHAMBRE D'ÉCHANGE DE CHALEUR DANS UNE EXCAVATION DE SOL, PROCÉDÉ DE FABRICATION DE SYSTÈME D'ÉCHANGE DE CHALEUR ET PROCÉDÉ D'ÉCHANGE DE CHALEUR EN UTILISANT LE SYSTÈME D'ÉCHANGE DE CHALEUR

Publication

EP 3311093 A1 20180425 (EN)

Application

EP 16775677 A 20160929

Priority

- EP 15187740 A 20150930
- EP 2016073299 W 20160929

Abstract (en)

[origin: WO2017055475A1] Heat exchange system with a heat exchange chamber in a soil excavation, method for manufacturing the heat exchange system and method for exchanging heat by using the heat exchange system The invention refers to s heat exchange system with at least one heat exchange chamber. The heat exchange chamber comprises es heat exchange chamber boundaries which surround at least one heat exchange chamber interior of the heat exchange chamber. The heat exchange chamber boundaries comprise at least one first opening for guiding in an inflow of at least one heat transfer fluid into the heat exchange chamber interior and at least one second opening for guiding out an outflow of the heat transfer fluid out of the heat exchange chamber interior. At least one heat storage material is arranged in the heat exchange chamber interior such that a heat exchange flow of the heat transfer fluid through the heat exchange chamber interior causes a heat exchange between the heat storage material and the heat transfer fluid. The heat exchange chamber is at least partly arranged in at least one soil excavation of a soil. The heat exchange chamber is at least partly buried in the soil. In a preferred embodiment, at least one of the heat exchange chamber boundaries is at least partly formed by at least one soil boundary. The respective heat ex-change chamber boundary comprises the soil boundary of the soil excavation. In a preferred embodiment, the soil boundary is formed by filled ground. The filled ground is preferably a result of digging into the soil for the providing of the soil excavation.

IPC 8 full level

F28D 20/00 (2006.01)

CPC (source: EP)

F28D 20/0052 (2013.01); **F28D 20/0056** (2013.01); **Y02E 60/14** (2013.01)

Citation (search report)

See references of WO 2017055475A1

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 2017055475 A1 20170406; EP 3311093 A1 20180425

DOCDB simple family (application)

EP 2016073299 W 20160929; EP 16775677 A 20160929