

Title (en)  
MODULAR GEOTHERMAL ENERGY CENTER

Title (de)  
MODULARES GEOTHERMISCHES ENERGIEZENTRUM

Title (fr)  
CENTRE D'ÉNERGIE GÉOTHERMIQUE MODULAIRE

Publication  
**EP 4407239 A1 20240731 (EN)**

Application  
**EP 23472007 A 20230824**

Priority  
BG 56592323 A 20230128

Abstract (en)  
The invention relates to a modular geothermal energy center that will find application in thermal engineering, and in particular will serve to provide heating and cooling power in newly constructed or existing buildings. The modular geothermal energy center includes a main container (1) in which at least one geothermal heat pump (2) is installed, having a condensing and an evaporating part. The evaporating part of each geothermal heat pump (2) is connected through boreholes to geothermal sources, while the condenser part of the geothermal heat pump (2) can be connected to a heating and cooling installation, as well as to a hot water supply installation. The modular geothermal energy center has a heat-transferring fluids managing unit (5), including electronically controlled three-way valves, and one or more additional modules (7, 12, 13) with equipment for hot water supply and indoor installation for heating and cooling. All operation modes of the modular geothermal energy center are controlled by a power supply and control panel (21).

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Citation (applicant)  
EP 2597379 A2 20130529 - SANCHEZ PEREZ VICENTE [ES], et al

Citation (search report)  
• [A] CN 114263973 A 20220401 - SHANGHAI COOPERATIVE BUILDING SCIENCE AND TECH LIMITED COMPANY  
• [A] SE 2150698 A1 20221202 - MEGAWATT SOLUTIONS NORDIC AB [SE]  
• [AD] EP 2597379 A2 20130529 - SANCHEZ PEREZ VICENTE [ES], et al  
• [A] WO 2016036176 A1 20160310 - SAMSUNG ELECTRONICS CO LTD [KR]  
• [A] EP 2863154 A1 20150422 - MITSUBISHI ELECTRIC CORP [JP]

Designated contracting state (EPC)  
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