

Title (en)
GEOTHERMAL HEAT PUMP DEVICE

Title (de)
GEOTHERMISCHE WÄRMEPUMPENVORRICHTUNG

Title (fr)
DISPOSITIF DE POMPE À CHALEUR GÉOTHERMIQUE

Publication
EP 3594588 B1 20220713 (EN)

Application
EP 17899277 A 20170309

Priority
JP 2017009420 W 20170309

Abstract (en)
[origin: EP3594588A1] A geothermal heat pump device includes a heat pump heat source unit having a refrigerant circuit in which a compressor, a water-refrigerant heat exchanger, an expansion valve, and a refrigerant-brine heat exchanger in which a heat medium from an underground heat exchanger buried underground is connected such that the heat medium circulates are serially connected, a warm-water heater unit configured to supply warm water heated at the water-refrigerant heat exchanger to heating and air conditioning and hot water supply such that the warm water circulates, and a controller configured to control an upper limit of an operation frequency of the compressor based on a heat collection limit value set by comparing a unit necessary evaporation capacity calculated from information on the underground heat exchanger with a unit actual evaporation capacity calculated from inlet and outlet temperatures and a circulation flow rate of the heat medium circulating through the refrigerant-brine heat exchanger.

IPC 8 full level
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