

Abstract

Magnetocaloric thermal generator and method for cooling same

5 The invention relates to a magnetocaloric thermal generator (10) comprising a primary circuit (P₁₀) fluidically connecting two stages (E₁, E₂) of magnetocaloric elements (M₁₁, M₁₂, M₂₁, M₂₂) using a heat transfer fluid called primary fluid flowing alternately back and forth, said stages (E₁, E₂) being subjected to the variable magnetic field of a magnetic system (2), and the primary system comprising a cold

10 side (F) and a hot side (C) to which the magnetocaloric elements (M₁₁, M₁₂, M₂₁, M₂₂) of said stages (E₁, E₂) are fluidically connected. At least the cold side (F) of the primary circuit comprises an outlet point (S₁) connected to another point of the primary circuit, referred to as the injection point (I₁), on the hot side (C) by a bypass pipe (D₁) allowing the primary fluid to be displaced only from the outlet point (S₁)

15 towards the injection point (I₁). Another subject of the invention is a method for cooling said secondary fluid using said magnetocaloric thermal generator.

Figure 1A.