

Summary

Thermal generator with magneto-caloric material

- 5 The present invention relates to a heat generator (1) characterized in that it comprises at least one thermal module (10) that comprises N adjacent magnetocaloric elements (2), arranged in a circle around a central axis (A) and subjected to a variation in magnetic field caused by magnetic devices (3) so as to make their temperature vary. These magnetocaloric elements (2) are associated with N pistons (40) subjected to an
- 10 reciprocating translation movement by an actuating cam (70) to circulate the heat transfer fluid contained in the thermal module (10) in two opposite directions at the same time, so that a first fraction of the heat transfer fluid circulates towards a hot exchange chamber (5) through the magnetocaloric elements (2) subjected to a heating cycle, and that a second fraction of the heat transfer fluid circulates towards a cold
- 15 exchange chamber (6) through the magnetocaloric elements (2) subjected to a cooling cycle, and inversely. The exchange chambers (5, 6) are coupled with external circuits that use the calories and frigories, such as heating, air-conditioning, tempering systems, etc.
- 20 Figure 4.