

Title (en)
MINIATURISED DEVICE THAT CAN OPERATE AS AN ENGINE OR A COOLER ACCORDING TO A STIRLING THERMODYNAMIC CYCLE

Title (de)
MINIATURVORRICHTUNG, DIE ENTSPRECHEND EINEM THERMODYNAMISCHEN STIRLING-ZYKLUS ALS MOTOR ODER KÜHLGERÄT BETRIEBEN WERDEN KANN

Title (fr)
DISPOSITIF MINIATURISÉ APTE À FONCTIONNER COMME MOTEUR OU REFROIDISSEUR SELON UN CYCLE THERMODYNAMIQUE DE STIRLING

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Application
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Abstract (en)
[origin: WO2007132130A1] The invention relates to a miniaturised device (1) which can operate as an engine or a cooler according to a Stirling thermodynamic cycle, said device comprising an expansion chamber (2) and a compression chamber (3) which are interconnected by means of a regenerator (4) enabling the working fluid to flow through from the expansion chamber (2) to the compression chamber (3), and vice versa, under the effect of the movement of a displacing mechanism (6), a fraction (8) of the compression chamber being mobile and operating as a piston in order to modify the volume of the compression chamber. The inventive device is characterised in that it also comprises a complementary chamber (5) which is connected to the compression chamber (3) by means of a complementary connection channel (7), said complementary chamber being at an intermediate temperature between the temperature of the compression chamber and the temperature of the expansion chamber, the complementary chamber being separated from the expansion chamber (2) by means of the displacing mechanism (6).

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