

Title (en)
HEAT EXCHANGE DEVICE

Title (de)
WÄRMETAUSCHERVORRICHTUNG

Title (fr)
DISPOSITIF D'ÉCHANGE DE CHALEUR

Publication
EP 3312530 A1 20180425 (EN)

Application
EP 17196032 A 20171011

Priority
EP 16194944 A 20161020

Abstract (en)
A heat exchange device comprising an assembly (2). The assembly (2) comprises a stack and at least one means for fastening (11) configured to hold the assembly (2) together. The stack comprises (i) at least two first modules (3a, 3b), each comprising a first surface (16), a second surface (15) opposite the first surface, a first fluid inlet (4a, 4b) and a first fluid outlet (5a, 5b) connected by a first fluid channel interposed between the first surface and the second surface, (ii) a second module (6a, 6b) comprising a third surface (16), a fourth surface (15) opposite the third surface, a second fluid inlet (7a, 7b) and a second fluid outlet (8a, 8b) connected by a second fluid channel interposed between the third surface and the fourth surface, (iii) at least two thermoelectric elements (9a, 9b), wherein each thermoelectric element is at least partially sandwiched between one of said at least two first modules (3a, 3b) and said second module (6a, 6b). The first and second modules and the thermoelectric elements are stacked along a stacking direction, wherein one of the at least two first modules is positioned at a first end of the stack along the stacking direction and another one of the at least two first modules is positioned at a second end of the stack opposite the first end. The first surface (16) and the third surface (16) are surfaces of contact contacting with at least one of the thermoelectric elements such that a first fluid in the respective first module and a second fluid in the respective second module are in indirect contact with the respective thermoelectric element.

IPC 8 full level
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Citation (applicant)
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