

Title (en)

MEMBRANE CONTACTOR FOR TRANSFERRING WATER VAPOR BETWEEN TWO GAS FLOWS

Title (de)

MEMBRANKONTAKTOR ZUR ÜBERTRAGUNG VON WASSERDAMPF ZWISCHEN ZWEI GASSTRÖMEN

Title (fr)

CONTACTEUR À MEMBRANE DESTINÉ AU TRANSFERT DE VAPEUR D'EAU ENTRE DEUX FLUX GAZEUX

Publication

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Application

EP 21802603 A 20211022

Priority

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- EP 2021079314 W 20211022

Abstract (en)

[origin: WO2022096287A2] The invention relates to a membrane contactor for transferring water vapor between two gas flows. The membrane contactor can, in particular, be part of an air-conditioning system or a fuel cell. The flat membrane contactor comprises: a) a stack of membrane pockets disposed in a housing, each membrane pocket having two membranes which are welded gas tight at their edges and which are selectively permeable to water vapor; b) guide structures for a first gas flow through the flat membrane contactor, which guide structures are fluidically connected to the interior of the membrane pockets by means of openings in the membrane pockets; and c) guide structures for a second gas flow through the flat membrane contactor, which guide structures are designed to guide the second gas flow past the outside of the membrane pockets. The membrane pockets are arranged in the stack in such a way that their openings lie one above the other. The openings of the membrane pockets are provided with gas rings, and the first gas flow is fluidically connected to the interior of the membrane pockets by means of the gas rings.

IPC 8 full level

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Citation (search report)

See references of WO 2022096287A2

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