

Title (en)  
HEAT EXCHANGING APPARATUS AND MANUFACTURING METHOD THEREFOR

Title (de)  
WÄRMEAUSTAUSCHVORRICHTUNG UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
APPAREIL D'ÉCHANGE DE CHALEUR ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 4145063 A4 20240529 (EN)**

Application  
**EP 21795284 A 20210428**

Priority

- CN 202010362743 A 20200430
- CN 202010362753 A 20200430
- CN 202010363934 A 20200430
- CN 2021090451 W 20210428

Abstract (en)  
[origin: EP4145063A1] A heat exchange apparatus and a manufacturing method therefor, comprising a valve core part and a core body part. The valve core part is provided with a valve base part. The valve seat part is at least partly arranged in a first conduit. The valve base part is provided with a base section and a middle section. The base section is provided with a bottom opening. The middle section is provided with a peripheral opening. The valve base part is provided with a throttling hole. The throttling hole is in communication with the peripheral opening and the bottom opening. The middle section is arranged on a sheet part and the peripheral opening is in communication with inter-sheets channels. The heat exchanging apparatus comprising a connecting element. The connecting element is at least partly inserted into the first conduit. The bottom opening is in communication with a connecting cavity. The heat exchanging apparatus comprises a connecting channel. The connecting channel is in communication with the connecting cavity. The heat exchanging apparatus is structurally compact.

IPC 8 full level  
**F25B 39/02** (2006.01); **F25B 41/31** (2021.01); **F25B 41/34** (2021.01)

CPC (source: EP US)  
**F25B 39/02** (2013.01 - EP); **F25B 41/34** (2021.01 - EP); **F28D 9/0031** (2013.01 - US); **F28D 9/005** (2013.01 - EP); **F28F 3/08** (2013.01 - US); **F28F 9/0251** (2013.01 - EP); **F28F 9/027** (2013.01 - EP); **F28F 27/02** (2013.01 - EP); **F25B 2500/18** (2013.01 - EP); **F28D 2021/0068** (2013.01 - EP); **F28F 2275/06** (2013.01 - US)

Citation (search report)

- [A] US 2018080693 A1 20180322 - WANG JINGPENG [CN], et al
- [A] WO 2012095531 A1 20120719 - BEHR GMBH & CO KG [DE], et al
- See also references of WO 2021218986A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 4145063 A1 20230308**; **EP 4145063 A4 20240529**; US 2023160643 A1 20230525; WO 2021218986 A1 20211104

DOCDB simple family (application)  
**EP 21795284 A 20210428**; CN 2021090451 W 20210428; US 202117916782 A 20210428