

Title (en)  
JOINT

Title (de)  
VERBINDUNGSSTELLE

Title (fr)  
RACCORD

Publication  
**EP 3828490 A4 20210915 (EN)**

Application  
**EP 19841770 A 20190725**

Priority  
• JP 2018139667 A 20180725  
• JP 2019029250 W 20190725

Abstract (en)  
[origin: EP3828490A1] When a joint is used to connect a multi-hole flat pipe and a cylindrical pipe, a problem may occur in that oil accumulates in the vicinity of a connection portion. This problem may be significant in a refrigeration apparatus that uses a carbon dioxide refrigerant, for which oil has high importance. A joint (34) includes a first connection portion (301) that covers an outer side of an end portion of a multi-hole flat pipe (300), and a body (302) that is continuous from the first connection portion (301). An inside dimension ( $L_{302}$ ) of the body (302) in a vertical direction is larger than an inside dimension ( $L_{301}$ ) of the first connection portion (301) in the vertical direction. Here, the vertical direction is a thickness direction of the multi-hole flat pipe (300) (thickness T, width W,  $W > T$ ).

IPC 8 full level  
**F28F 9/26** (2006.01); **F24F 1/16** (2011.01); **F24F 1/18** (2011.01); **F25B 1/00** (2006.01); **F25B 1/10** (2006.01); **F25B 9/00** (2006.01); **F25B 13/00** (2006.01); **F25B 31/00** (2006.01); **F25B 39/00** (2006.01); **F25B 41/00** (2021.01); **F28D 1/04** (2006.01); **F28D 21/00** (2006.01); **F28F 1/02** (2006.01)

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Citation (search report)  
• [XY] JP H07125529 A 19950516 - KANSAI PIPE KOGYO KK  
• [XY] JP 2011127831 A 20110630 - MITSUBISHI ELECTRIC CORP  
• [Y] JP 2010185614 A 20100826 - MITSUBISHI ELECTRIC CORP  
• [Y] JP 2016038141 A 20160322 - MITSUBISHI ELECTRIC CORP  
• See references of WO 2020022443A1

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