

Title (en)  
FALLING FILM EVAPORATOR

Title (de)  
FALLFILMVERDAMPFER

Title (fr)  
ÉVAPORATEUR À FLUX TOMBANT

Publication  
**EP 3165851 A4 20180321 (EN)**

Application  
**EP 15815967 A 20150629**

Priority  
• JP 2014136332 A 20140701  
• JP 2015068703 W 20150629

Abstract (en)  
[origin: EP3165851A1] Provided is a falling film evaporator which is able to reduce an outflow of liquid refrigerant even in the case in which a vapor outlet pipe is provided in a location other than the upper middle portion of the tank. A falling film evaporator (1) allows liquid refrigerant of refrigerant in a gas-liquid two-phase state supplied in a tank (10) to downwardly fall onto a heat transfer tube group (20) via a second stage refrigerant tray (35), and is provided with an isolation member (50) covering a place below a lowest portion of a connection portion of the tank (10) and a vapor outlet pipe (18), extending between the vapor outlet pipe (18) and a liquid refrigerant distribution apparatus (30), and allowing refrigerant to pass through an upper portion. The isolation member (50) is provided such that the longitudinal direction of the isolation member (50) is same as a longitudinal direction of the heat transfer tubes (21).

IPC 8 full level  
**F25B 39/02** (2006.01); **F28D 3/04** (2006.01); **F28D 5/02** (2006.01); **F28D 7/16** (2006.01); **F28D 21/00** (2006.01); **F28F 9/22** (2006.01)

CPC (source: EP US)  
**F25B 39/00** (2013.01 - US); **F25B 39/02** (2013.01 - EP US); **F25B 39/028** (2013.01 - EP); **F28D 3/04** (2013.01 - EP); **F28D 5/02** (2013.01 - EP US); **F28D 7/16** (2013.01 - EP); **F28D 21/0017** (2013.01 - EP); **F28F 9/22** (2013.01 - EP US); **F25B 2339/0242** (2013.01 - EP)

Citation (search report)  
• [XY] JP H0783539 A 19950328 - HITACHI LTD  
• [X] US 2011017432 A1 20110127 - KULANKARA SATHEESH [US], et al  
• [Y] JP H06272976 A 19940927 - DAIKIN IND LTD  
• [A] DE 102012011328 A1 20131212 - LINDE AG [DE]  
• See references of WO 2016002723A1

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 3165851 A1 20170510; EP 3165851 A4 20180321**; CN 106662381 A 20170510; JP 2016014495 A 20160128; US 2017153061 A1 20170601; WO 2016002723 A1 20160107

DOCDB simple family (application)  
**EP 15815967 A 20150629**; CN 201580035308 A 20150629; JP 2014136332 A 20140701; JP 2015068703 W 20150629; US 201515319323 A 20150629