

Title (en)  
REFRIGERATION SYSTEM AND FALL FILM EVAPORATOR

Title (de)  
KÜHLSYSTEM UND FALLFILMVERDAMPFER

Title (fr)  
SYSTÈME DE RÉFRIGÉRATION ET ÉVAPORATEUR À FILM TOMBANT

Publication  
**EP 3635310 A1 20200415 (EN)**

Application  
**EP 18724767 A 20180501**

Priority  
• CN 201710357044 A 20170519  
• US 2018030427 W 20180501

Abstract (en)  
[origin: WO2018212983A1] A refrigeration system and a falling film evaporator. The refrigeration system includes: a refrigeration loop having an air outlet of a compressor, a condenser, a throttle element, a falling film evaporator, and an air inlet of the compressor which are connected in sequence by pipes, wherein the falling film evaporator comprises a housing, a distributor located at an upper portion inside the housing, and a heat exchange pipeline located below the distributor; an oil return branch having an oil intake point connected to a lower portion of the falling film evaporator and an oil return point connected to the air inlet of the compressor; and a bypass branch having a bypass inlet connected to downstream of the throttle element and a bypass outlet connected to the lower portion of the falling film evaporator and used for introducing part of gas-liquid two-phase refrigerant into the falling film evaporator.

IPC 8 full level  
**F25B 31/00** (2006.01); **F25B 39/02** (2006.01); **F25B 41/40** (2021.01); **F25B 43/02** (2006.01)

CPC (source: CN EP US)  
**F25B 31/004** (2013.01 - EP US); **F25B 39/02** (2013.01 - EP); **F25B 39/028** (2013.01 - CN); **F25B 41/00** (2013.01 - CN US);  
**F25B 43/02** (2013.01 - EP); **F28D 5/02** (2013.01 - EP US); **F25B 39/028** (2013.01 - US); **F25B 43/02** (2013.01 - US);  
**F25B 2339/021** (2013.01 - EP US); **F25B 2339/0242** (2013.01 - CN); **F25B 2341/0016** (2013.01 - US); **F28D 2021/0071** (2013.01 - EP US)

Citation (search report)  
See references of WO 2018212983A1

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2018212983 A1 20181122**; CN 108954986 A 20181207; CN 108954986 B 20221115; EP 3635310 A1 20200415; EP 3635310 B1 20230802;  
ES 2952980 T3 20231107; US 2021164732 A1 20210603

DOCDB simple family (application)  
**US 2018030427 W 20180501**; CN 201710357044 A 20170519; EP 18724767 A 20180501; ES 18724767 T 20180501;  
US 201816614991 A 20180501