

Title (en)  
REFRIGERATION SYSTEM OF THE "FREE COOLING" TYPE WITH SUB-COOLER OF THE REFRIGERANT

Title (de)  
KÄLTEANLAGE MIT FREIER KÜHLUNG MIT KÄLTEMITTELUNTERKÜHLER

Title (fr)  
SYSTÈME DE RÉFRIGÉRATION DU TYPE « À REFROIDISSEMENT LIBRE » AVEC REFROIDISSEUR SECONDAIRE DU RÉFRIGÉRANT

Publication  
**EP 3232138 A1 20171018 (EN)**

Application  
**EP 17165891 A 20170411**

Priority  
IT UA20162491 A 20160411

Abstract (en)  
The refrigeration system of the "free cooling" type is equipped with a circuit for working fluid to be refrigerated, refrigeration circuits (16, 16') with refrigeration cycles, and a sub-cooling unit (14) having heat exchange means for sub-cooling, with the working fluid, the refrigerant circulating in the refrigeration circuits (16, 16'), the heat exchange means comprising a heat exchanger (14) shared by the refrigeration circuits (16, 16').

IPC 8 full level  
**F25B 7/00** (2006.01); **F25B 25/00** (2006.01); **F25B 40/02** (2006.01); **F25B 41/00** (2006.01); **F25D 16/00** (2006.01)

CPC (source: EP)  
**F25B 7/00** (2013.01); **F25B 23/006** (2013.01); **F25B 25/005** (2013.01); **F25B 40/02** (2013.01); **F25B 41/00** (2013.01); **F25D 16/00** (2013.01); **F28D 7/0083** (2013.01); **F28D 7/0091** (2013.01); **F28D 7/06** (2013.01); **F28D 7/1607** (2013.01); **F25B 2339/047** (2013.01); **F25B 2400/06** (2013.01); **F28D 2021/0068** (2013.01)

Citation (search report)

- [XII] US 2014260391 A1 20140918 - KOPKO WILLIAM L [US]
- [XII] US 2012125023 A1 20120524 - KOPKO WILLIAM L [US], et al
- [A] US 2002179294 A1 20021205 - GUPTA NEELKANTH SHRIDHAR [US]
- [A] US 2013047661 A1 20130228 - JANSSENS STIJN JOZEF RITA JOHANNA [BE], et al

Cited by  
NL2024869B1; US11506406B2

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)  
**EP 3232138 A1 20171018; EP 3232138 B1 20210908**; IT UA20162491 A1 20171011

DOCDB simple family (application)  
**EP 17165891 A 20170411**; IT UA20162491 A 20160411