

Title (en)  
REFRIGERATOR

Title (de)  
KÄLTEANLAGE

Title (fr)  
RÉFRIGÉRATEUR

Publication  
**EP 2828589 A1 20150128 (DE)**

Application  
**EP 13711051 A 20130321**

Priority  
• DE 102012102404 A 20120321  
• EP 2013055931 W 20130321

Abstract (en)  
[origin: US2013247603A1] In order to improve a refrigeration system comprising a refrigeration circuit, in which a refrigerant compressor, a condenser following on from the refrigerant compressor, an expansion device following on from the condenser and an evaporator following on from the expansion device are arranged, the evaporator being connected to the refrigerant compressor, wherein the refrigerant compressor has a drive motor speed-controlled by an electronic motor control and a control cooling branch which has refrigerant flowing through it, branches off from the refrigeration circuit between the condenser and the expansion device and is guided to a connection of the refrigerant compressor and in which a cooling element is arranged which is connected in a heat conducting manner to electronic power components of the motor control, in such a manner that disruption to the operation of the motor control is avoided as far as possible it is suggested that a regulating device be provided for the control cooling branch and this regulate a temperature of the cooling element during operation of the refrigerant compressor such that a minimum evaporation temperature of the cooling element is above a freezing temperature and below a liquefying temperature of the refrigerant in the evaporator.

IPC 8 full level  
**F25B 5/02** (2006.01); **F25B 1/047** (2006.01); **F25B 31/00** (2006.01); **F25B 41/04** (2006.01); **F25B 47/00** (2006.01)

CPC (source: EP RU US)  
**F25B 5/02** (2013.01 - EP US); **F25B 31/00** (2013.01 - RU); **F25B 31/006** (2013.01 - US); **F25B 31/008** (2013.01 - EP US); **F25B 47/006** (2013.01 - EP US); **F25B 1/047** (2013.01 - EP US); **F25B 41/22** (2021.01 - EP RU US); **F25B 2400/0411** (2013.01 - EP US); **F25B 2500/26** (2013.01 - EP US); **F25B 2700/193** (2013.01 - EP US); **F25B 2700/197** (2013.01 - EP US); **F25B 2700/21175** (2013.01 - EP US)

Citation (search report)  
See references of WO 2013139909A1

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)  
**US 2013247603 A1 20130926**; **US 9194619 B2 20151124**; CN 103322739 A 20130925; CN 103322739 B 20160420; DE 102012102404 A1 20130926; EP 2828589 A1 20150128; EP 2828589 B1 20191106; RU 2014142091 A 20160520; RU 2615864 C2 20170411; WO 2013139909 A1 20130926

DOCDB simple family (application)  
**US 201313847149 A 20130319**; CN 201310092482 A 20130321; DE 102012102404 A 20120321; EP 13711051 A 20130321; EP 2013055931 W 20130321; RU 2014142091 A 20130321