

Title (en)
SINGLE-CIRCUIT REFRIGERATOR AND OPERATING METHOD THEREFOR

Title (de)
EINKREIS-KÄLTEGERÄT UND BETRIEBSVERFAHREN DAFÜR

Title (fr)
APPAREIL FRIGORIFIQUE À UN SEUL CIRCUIT ET PROCEDE DE FONCTIONNEMENT CORRESPONDANT

Publication
EP 2841856 A1 20150304 (DE)

Application
EP 13720277 A 20130411

Priority
• DE 102012206806 A 20120425
• EP 2013057535 W 20130411

Abstract (en)
[origin: WO2013160111A1] The invention concerns a refrigerator, in particular a domestic refrigerator, comprising a compressor (7), an upstream and a downstream evaporator (5, 6), which are connected in series to the compressor (7), a first storage compartment (2), which is cooled by means of the upstream evaporator (5), and a second storage compartment (3), which is cooled by the downstream evaporator (6). According to the invention, a control unit (11) is arranged, in a normal cooling mode (S1 - S5), to control the operation of the compressor (7) by comparing the temperature (T_{nk}) measured by a temperature sensor (13) in one of the storage compartments (3) with a first set value, and can be switched by a user from the normal cooling mode into an intensive cooling mode, which comprises at least one phase of long compressor-operating times ([t₁, t₂]; S6-S11), in which the control unit (11) controls the operation of the compressor (7) by comparing the measured temperature (T_{nk}) with a second set value which is lower than the first set value, and a phase of short compressor-operating times ([t₂, t₃]; S12-S17) in which the amount of coolant circulated by the compressor (7) between switching on and subsequent switching off is less than the capacity of the two compressors (5, 6) for liquid coolant.

IPC 8 full level
F25D 11/02 (2006.01); **F25B 49/02** (2006.01)

CPC (source: CN EP)
F25B 49/022 (2013.01 - CN EP); **F25D 11/022** (2013.01 - CN EP); **F25B 2600/0251** (2013.01 - CN EP); **F25B 2700/2117** (2013.01 - CN EP); **F25D 2400/28** (2013.01 - CN EP); **F25D 2700/12** (2013.01 - CN EP)

Citation (search report)
See references of WO 2013160111A1

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 2013160111 A1 20131031; CN 104272041 A 20150107; CN 104272041 B 20160330; DE 102012206806 A1 20131031; EP 2841856 A1 20150304; EP 2841856 B1 20160629; PL 2841856 T3 20161130; RU 2014145302 A 20160610; RU 2591371 C2 20160720

DOCDB simple family (application)
EP 2013057535 W 20130411; CN 201380022358 A 20130411; DE 102012206806 A 20120425; EP 13720277 A 20130411; PL 13720277 T 20130411; RU 2014145302 A 20130411