

Title (en)
Idle defrosting operation determining device for air conditioning apparatus

Title (de)
Leerlaufabtaubetrieb-Bestimmungsvorrichtung für ein Klimaanlagegerät

Title (fr)
Dispositif de définition du fonctionnement de dégivrage au ralenti pour appareil de climatisation d'air

Publication
EP 2428754 A3 20131023 (EN)

Application
EP 11174744 A 20110720

Priority
JP 2010174596 A 20100803

Abstract (en)
[origin: EP2428754A2] An air conditioning apparatus (1) includes a refrigeration cycle including a compressor (11), an indoor heat exchanger (16), a pressure reducer (17) and an outdoor heat exchanger (15), that constitute a fluid circuit for circulating a cooling medium, the outdoor heat exchanger serving as an evaporator when a heating operation is performed and as a condenser when a defrosting operation is performed, and an idle defrosting operation determining device (20) including a temperature detecting device (21) detecting a pipe temperature (T) of the outdoor heat exchanger, a low temperature integrated value calculating means (20) calculating a low temperature integrated value (A), a high temperature integrated value calculating means (20) calculating a high temperature integrated value (B), and a determining means (20) determining whether or not the idle defrosting operation is carried out based on a relationship between the low temperature integrated value and the high temperature integrated value.

IPC 8 full level
F25B 47/02 (2006.01); **F25B 13/00** (2006.01)

CPC (source: EP KR)
F24F 11/89 (2017.12 - KR); **F25B 47/02** (2013.01 - EP KR); **F25B 49/02** (2013.01 - KR); **F25B 13/00** (2013.01 - EP);
F25B 2700/2103 (2013.01 - EP)

Citation (search report)

- [A] US 4689965 A 19870901 - JANKE DONALD E [US], et al
- [A] DE 3220592 C1 19831027 - KULMBACHER KLIMAGERÄTE
- [A] GB 2340922 A 20000301 - DAEWOO ELECTRONICS CO LTD [KR]
- [AD] JP 2002130876 A 20020509 - SAGINOMIYA SEISAKUSHO INC

Cited by
CN109780684A

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 2428754 A2 20120314; **EP 2428754 A3 20131023**; **EP 2428754 B1 20170823**; JP 2012037066 A 20120223; JP 5499982 B2 20140521; KR 101568894 B1 20151112; KR 20120012955 A 20120213

DOCDB simple family (application)
EP 11174744 A 20110720; JP 2010174596 A 20100803; KR 20110076895 A 20110802