

Title (en)

CONTROL PROCESS FOR CONTROLLING THE ICING OF THE EVAPORATOR IN A BLAST CHILLER

Title (de)

STEUERUNGSVERFAHREN ZUR STEUERUNG DER VEREISUNG DES VERDAMPFERS IN EINEM BLASKÜHLER

Title (fr)

PROCESSUS DE COMMANDE DU GIVRAGE DE L'ÉVAPORATEUR DANS UN RÉFRIGÉRANT À JET

Publication

EP 3726167 A1 20201021 (EN)

Application

EP 20020177 A 20200414

Priority

IT 201900005938 A 20190417

Abstract (en)

Control process (20a, 20b) for controlling the icing of the evaporator (104), to optimize defrosting in a blast chiller, which operates by means of a refrigeration circuit (101-104) at evaporation temperatures lower than 0°C, comprising a Phase of detection (201) of the value ATD, which is equal to the difference between the air temperature in the cell (105) and the temperature of the cooling fluid, processed in the following Phases of calculation for opening (202) and closing (207) the defrosting means (106-107, 125-126) according to opening algorithms (113a-113b) and closing algorithms (114a-114d), which continuously consider the variations of said value ATD in such a way as to automatically and dynamically open (203) and close (208) them, keeping the evaporator (104) in a controlled minimum icing condition. The proposed solution is suitable for hot gas defrosting systems (106-107) or for defrosting systems with electrical resistors (125-126).

IPC 8 full level

F25D 21/00 (2006.01); **F25B 47/02** (2006.01); **F25D 21/02** (2006.01); **F25D 21/08** (2006.01); **F25D 21/12** (2006.01)

CPC (source: EP)

F25B 47/022 (2013.01); **F25D 21/006** (2013.01); **F25D 21/02** (2013.01); **F25D 21/08** (2013.01); **F25D 21/12** (2013.01); **F25D 2400/30** (2013.01); **F25D 2700/10** (2013.01); **F25D 2700/12** (2013.01)

Citation (applicant)

- JP 2014119122 A 20140630 - MITSUBISHI ELECTRIC CORP
- WO 2018178405 A1 20181004 - UNIV LLEIDA [ES], et al

Citation (search report)

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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 3726167 A1 20201021; IT 201900005938 A1 20201017

DOCDB simple family (application)

EP 20020177 A 20200414; IT 201900005938 A 20190417