

Title (en)

Adaptive thaw control and method for a cooling device

Title (de)

Adaptive Abtausteuering und Verfahren für ein Kühlgerät

Title (fr)

Commande de décongélation adaptative et procédé pour un appareil de réfrigération

Publication

EP 2314960 A2 20110427 (DE)

Application

EP 10013799 A 20101020

Priority

US 60318909 A 20091021

Abstract (en)

The controller (100) has a microcontroller (110) to divide a cyclically recurring predefined time period into bins. The microcontroller monitors compressor run times over the period by monitoring a relay or switch operation, a detected voltage change, a detected increased current draw and temperature in a fresh food compartment (14) or a freezer compartment (12), log, over time, and detected compressor run times of the bins. The microcontroller analyzes data logged into the bins to detect bins recording low compressor usage, and schedules a defrost cycle based on results of analyzed data. Independent claims are also included for the following: (1) a method for performing a defrost cycle in a refrigeration device including an adaptive defrost controller (2) a computer program having a set of instructions to execute a method for performing a defrost cycle in a refrigeration device including an adaptive defrost controller (3) a refrigerator.

Abstract (de)

Es werden ein System (110) und ein Verfahren zur Steuerung des automatischen Abtauens einer Kühltürscheinrichtung (10) bereitgestellt. Auf der Basis einer Evaluierung der Kompressorbenutzung in einem täglichen Zyklus verlagert das System den Abtauzyklus adaptiv auf Zeiten geringer Benutzung.

IPC 8 full level

F25D 21/00 (2006.01)

CPC (source: EP US)

F25B 47/02 (2013.01 - EP US); **F25D 21/006** (2013.01 - EP US); **F25B 2700/11** (2013.01 - EP US); **F25D 2600/02** (2013.01 - EP US); **F25D 2700/122** (2013.01 - EP US); **F25D 2700/123** (2013.01 - EP US); **F25D 2700/14** (2013.01 - EP US)

Citation (applicant)

- EP 1731859 A2 20061213 - WURM GMBH & CO KG [DE]
- EP 1496324 A1 20050112 - WHIRLPOOL CO [US]
- US 5533349 A 19960709 - GROMALA JOSEPH R [US], et al
- US 5231844 A 19930803 - PARK YON T [KR]
- US 5483804 A 19960116 - OGAWA ATSUSHI [JP], et al
- US 6523358 B2 20030225 - COLLINS MARTIN [US]
- US 5515692 A 19960514 - STERBER FRANK W [US], et al

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 2314960 A2 20110427; US 2011088415 A1 20110421; US 9032751 B2 20150519

DOCDB simple family (application)

EP 10013799 A 20101020; US 60318909 A 20091021