

Title (en)

Method and device for dynamically controlling frost formation on a refrigerator evaporator.

Title (de)

Verfahren und Vorrichtung zur dynamischen Kontrolle der Eisbildung an einem Kühlschrankverdampfer.

Title (fr)

Procédé et dispositif pour le contrôle dynamique de la formation de givre sur un évaporateur d'une armoire frigorifique.

Publication

EP 0644386 A1 19950322 (EN)

Application

EP 93115230 A 19930922

Priority

EP 93115230 A 19930922

Abstract (en)

The method for controlling frost formation on an evaporator (3) of a refrigerator (7) is based on the use of at least one sensor of capacitive type (10, 11) positioned at the evaporator (3), and comprises measuring and memorizing, subsequent to initial starting of the refrigerator and after each defrosting cycle (42) of the evaporator (3), an electrical signal (Vd) generated by said capacitive sensor (10, 11) and comparing this memorized signal (Vd) with actual electrical signals (VF) generated during the normal refrigeration cycle (41) following said defrosting (42), said cycle (41) being halted for subsequent defrosting (42) whenever the actual signals (VF) differ from the memorized signals (Vd) by a predetermined percentage. The method is implemented by a control circuit comprising capacitive sensor means (10, 11) connected to control means (1) connected to means (15, 16) for measuring the temperature in the refrigerator compartments. <IMAGE>

IPC 1-7

F25D 21/02; **F25D 21/00**

IPC 8 full level

F25D 21/00 (2006.01); **F25D 21/02** (2006.01)

CPC (source: EP)

F25D 21/006 (2013.01); **F25D 21/02** (2013.01); **F25B 2700/2117** (2013.01); **F25D 2700/122** (2013.01)

Citation (search report)

- [A] US 4400949 A 19830830 - KINOSHITA MINORU [JP], et al
- [A] US 4347709 A 19820907 - WU M T, et al
- [A] US 4104888 A 19780808 - REEDY WAYNE R, et al
- [A] US 4653285 A 19870331 - POHL WALTER J [US]
- [A] US 4474024 A 19841002 - EPLETT F RUSSELL [US], et al
- [A] EP 0494785 A1 19920715 - MORRIS MICHAEL [GB], et al
- [A] US 3282065 A 19661101 - FLANAGAN CHARLES D
- [A] GB 2016174 A 19790919 - MALLORY & CO INC P R
- [A] US 3681933 A 19720808 - CHECK FRANK T JR

Cited by

WO2015022638A1; EP0871002A4; ITUD20130108A1; CN108007050A; EP0787961A3; US7836710B2; WO03098135A1; US7673661B2; US9126818B2; US9499384B2; US9828228B2; US10233069B2; US10850967B2; US11235965B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0644386 A1 19950322; **EP 0644386 B1 19980225**; DE 69317115 D1 19980402; DE 69317115 T2 19990415

DOCDB simple family (application)

EP 93115230 A 19930922; DE 69317115 T 19930922