

Title (en)
DEFROST CONTROL DEVICE FOR A REFRIGERATION SYSTEM

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EP 0154119 B1 19880511 (DE)

Application
EP 85100315 A 19850114

Priority
DE 3407286 A 19840229

Abstract (en)
[origin: EP0154119A1] 1. Defrosting control device for a refrigeration system comprising a temperature sensor to be attached to the evaporator of a refrigerating machine, comprising an input circuit to which the temperature sensor is connected and which contains a first (13) and second (14) switching unit for a lower and an upper temperature switching point, comprising a timing generator (28) for successive defrosting cycles which is connected to a first output circuit (24) for switching the refrigerating machine on and off and simultaneously switching an additional heater on and off, and to a second output circuit (27) for switching an additional fan on and off, the connections being conducted via the set inputs of a first (33) and second (43) bistable flip-flop circuit so that, when a timing pulse is generated, the refrigerating machine is switched off and simultaneously the additional heater is switched on by means of the first output circuit (24) by setting the bistable flip-flop circuits, and the additional fan is switched off by means of the second output circuit (27), the second switching unit (14) for the upper temperature switching point is connected to the reset input of the first bistable flip-flop circuit (33) so that the refrigerating machine is switched on again and the additional heater is switched off when this temperature switching point is reached, and the first switching unit (13) for the lower temperature switching point is connected to the reset input of the second bistable flip-flop circuit (43) so that the additional fan is switched on again when this temperature switching point is reached, characterized in that an alarm and safety circuit having a further timing generator (29) for monitoring the refrigeration system is provided which generates at least one timing pulse within one defrosting period and which is connected to one input (59) of a NAND circuit (40), that the output (54) of the first switching unit (13) for the lower temperature switching point and the output (34) of the first bistable flip-flop circuit (33) and the output (52) of the second bistable flip-flop stage (43) are connected to the other input (39) of the NAND circuit (40), that an alarm lamp (17) and/or an alarm switching unit (21) are connected to the output of the NAND circuit (40), that a third bistable flip-flop circuit (64) to maintain an alarm state, once generated, is connected between the NAND circuit (40) and the alarm lamp (17) and the alarm switching unit (21), and that the output of the third bistable flip-flop circuit (64) is conducted to priority-affected inputs (35, 68) of the first and second bistable flip-flop circuit (33, 43) so that, after an alarm has been signalled, the refrigerating machine and the additional fan are continuously switched on until the alarm has been acknowledged.

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F25D 21/00

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CPC (source: EP)
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US6014325A; EP0501387A3; FR2593590A1; EP0666457A1; EP0312467A1; FR2620525A1

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