

Title (en)
METHOD OF OPERATING A HEAT PUMP

Publication
EP 0063178 B1 19850213 (DE)

Application
EP 81109274 A 19811029

Priority
DE 3115599 A 19810416

Abstract (en)
[origin: EP0063178A1] 1. A method of operating a refrigerator in which in each case, the duration of a specific useful operation of the refrigerator which results in the frosting-up of its evaporator, is determined by the time of a defrosting process which precedes the useful operation in question and a defrosting process which follows the useful operation, characterised by the combination of the following features : 1.1 the refrigerator is operated as a heat pump ; 1.2 a defrosting process is initiated only when the instantaneous value of one of the state variables of the refrigerating agent in the evaporator, either the pressure or the temperature, falls below a lower limiting value ; 1.3 when the lower limiting value of the state variable is reached, the useful operation is interrupted, a defrosting process is initiated, and a first timing procedure (t) is commenced ; 1.4 as soon as the state variable has risen to an upper value during the defrosting process, the defrosting process is terminated, the refrigerator is switched to useful operation, and the first timekeeping procedure is terminated and the result thereof is stored ; 1.5 the useful operation is continued if, after a stipulated basic time (tG), the state variable still lies below the lower limiting value ; 1.6 the useful operation is interrupted again and a defrosting process is initiated if, after the expiry of the basic time (tG), the instantaneous value of the state variable is equal to or less than the lower limiting value, and at the beginning of the defrosting process which follows the useful operation, a second timing procedure (t) is commenced ; 1.7 on the termination of the last defrosting process to have been executed (which termination takes place when the upper limiting value of the state variable is reached), the second timing procedure (t) is likewise terminated and the result of this timing procedure is stored ; and 1.8 all the succeeding useful operation times are in each case determined by the basic time (tG) and a correcting value (Kw) which is added to this basic time and which is formed from the stored last-but-one timing value minus the stored last timing value and from a constant (k) which serves as amplification factor.

IPC 1-7
F25B 29/00; F25D 21/00

IPC 8 full level
F24F 11/02 (2006.01); **F25B 29/00** (2006.01); **F25B 47/02** (2006.01); **F25D 21/00** (2006.01)

CPC (source: EP)
F25B 29/00 (2013.01); **F25D 21/002** (2013.01)

Cited by
US5440893A; EP0278701A3; FR2577026A1; EP0108906A3; GB2183320A; GB2183320B

Designated contracting state (EPC)
AT BE CH FR LI

DOCDB simple family (publication)
EP 0063178 A1 19821027; EP 0063178 B1 19850213; AT E11819 T1 19850215; DE 3115599 A1 19821104; DE 3115599 C2 19860710; JP S57179526 A 19821105; JP S6334375 B2 19880711

DOCDB simple family (application)
EP 81109274 A 19811029; AT 81109274 T 19811029; DE 3115599 A 19810416; JP 6227482 A 19820414