

Title (en)

Method for operating an electric multistage heating having several heating elements

Title (de)

Verfahren zum Betreiben einer aus mehreren Heizelementen bestehenden mehrstufigen elektrischen Heizung

Title (fr)

Procédé d'opération d'un chauffage électrique à plusieurs étages avec plusieurs éléments chauffants

Publication

**EP 1296102 B1 20120620 (DE)**

Application

**EP 02019196 A 20020902**

Priority

DE 10147074 A 20010925

Abstract (en)

[origin: EP1296102A2] The PTC elements are electrically switched when the resistance of each reaches a predetermined maximum value. The spread of ohmic resistance of the elements and the required heat level are monitored and additional PTCs are switched in the circuit to suit.

IPC 8 full level

**F24H 9/20** (2006.01); **H05B 3/00** (2006.01); **H05B 1/02** (2006.01)

CPC (source: EP KR US)

**F24H 9/2071** (2013.01 - EP KR US); **H05B 1/02** (2013.01 - KR); **F24H 15/148** (2022.01 - EP KR US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

**EP 1296102 A2 20030326; EP 1296102 A3 20040102; EP 1296102 B1 20120620;** CA 2403820 A1 20030325; CA 2403820 C 20100622;  
DE 10147074 A1 20030508; JP 2003157954 A 20030530; JP 4181370 B2 20081112; KR 100899611 B1 20090527;  
KR 20030026883 A 20030403; US 2004056018 A1 20040325; US 6872922 B2 20050329

DOCDB simple family (application)

**EP 02019196 A 20020902;** CA 2403820 A 20020916; DE 10147074 A 20010925; JP 2002277427 A 20020924; KR 20020057881 A 20020924;  
US 25281702 A 20020924