

Title (en)  
SELF-REGULATING HEATING ELEMENT

Publication  
**EP 0057172 B1 19870415 (DE)**

Application  
**EP 82890012 A 19820126**

Priority  
AT 32081 A 19810126

Abstract (en)  
[origin: EP0057172A2] 1. Self-regulating heating element having at least one resistor heating member (1) arranged electrically insulated in a metal shell (11; 24; 30) and made of an electrically conducting ceramic material having a positive temperature coefficient of electrical resistivity, for the electrical insulation of the heating member against the metal shell (11; 24; 30) an electrically insulating foil (7, 8, 9) and a heat-conducting electrically insulating mass is used, characterized in that between the resistor heating member and the metal shell there is arranged a single or multiple layer wound insulation (7, 8, 9) surrounding the heating member (1) and made from electrically insulating foil material, which insulation contacts on the one hand the heating member (1) and on the other hand the inner surface (10) of the metal shell (11; 24; 30), interstices (12, 14, 18; 25, 26) being present between the layers of the foil winding in case there are several layers (7, 8, 9) provided, and interstices being present between the inner surface of the foil winding (7, 8, 9) which faces the heating member and the outer surface of the heating member (1), and interstices being present between the outer surface of the foil winding (7, 8, 9) and the inner surface (10) of the metal shell (11; 24; 30) are filled by said heat conducting electrically insulating mass.

IPC 1-7  
**H05B 3/14**; **H05B 3/42**

IPC 8 full level  
**H05B 3/14** (2006.01); **H05B 3/42** (2006.01)

CPC (source: EP)  
**H05B 3/141** (2013.01); **H05B 3/42** (2013.01); **H05B 2203/02** (2013.01)

Cited by  
EP1036930A1; EP0234608A1; EP1429084A1; CN102798218A; EP0340550A3; EP2571330A4; GB2493486B; US6402943B1; WO9619139A1; WO9107068A1; EP3101999A1; US10524310B2

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