

Title (en)

Self-protection for an electric type heating element, particularly heating element for washing machines, water heaters and like

Title (de)

Selbstschutz für elektrisches Heizelement, insbesondere für Waschmaschinen, Wasserheizer und dergleichen

Title (fr)

Auto protection pour élément de chauffage électrique, en particulier pour machines à laver, chauffe eau et similaires

Publication

EP 0651589 B1 20020417 (EN)

Application

EP 94830351 A 19940711

Priority

IT RM930716 A 19931029

Abstract (en)

[origin: EP0651589A2] The present invention relates to a self-protection system for an electric type heating element, particularly a heating element for washing machines, water heaters and like, comprising a copper terminal element (2; 2') having a substantially extended shape, one end of which is coupled to a terminal (1; 1') of the electric heating element, within the casing (6; 6') enclosing the electric heater, a self-protection element (4; 4') for the electric heater, coupled to the other end of said copper terminal element (2; 2') in such a way that the self-protection element (4; 4') is placed externally with respect to the resistance, a ring (5; 5') outer with respect to said self-protection element (4; 4') having thermal and electric insulation properties, and a closure element (7, 9), placed in correspondence of the end of the self-protection element (4; 4') that is not coupled to the copper terminal element (2; 2') and coupled with said insulating ring (5; 5'). <IMAGE>

IPC 1-7

H05B 1/02; **H05B 3/48**

IPC 8 full level

H01H 37/76 (2006.01); **H05B 1/02** (2006.01); **H05B 3/82** (2006.01)

CPC (source: EP)

H01H 37/761 (2013.01); **H05B 1/0205** (2013.01); **H05B 3/82** (2013.01); **H01H 2037/762** (2013.01)

Cited by

FR2803976A1; EP0876081A3; EP3109564A1; CN107709889A; US11204186B2; US6710310B2; WO0152601A1; WO2016207392A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0651589 A2 19950503; **EP 0651589 A3 19951004**; **EP 0651589 B1 20020417**; AT E216552 T1 20020515; DE 69430415 D1 20020523; DE 69430415 T2 20021114; DK 0651589 T3 20020729; ES 2174867 T3 20021116; IT 1262417 B 19960619; IT RM930716 A0 19931029; IT RM930716 A1 19950429; PT 651589 E 20020930

DOCDB simple family (application)

EP 94830351 A 19940711; AT 94830351 T 19940711; DE 69430415 T 19940711; DK 94830351 T 19940711; ES 94830351 T 19940711; IT RM930716 A 19931029; PT 94830351 T 19940711