

Title (en)

An electrical heating device and its method of manufacturing

Title (de)

Eine elektrische Heizvorrichtung und Verfahren zur Herstellung derselben

Title (fr)

Dispositif de chauffage électrique et son procédé de fabrication

Publication

EP 1931176 B1 20111005 (DE)

Application

EP 07018627 A 20061025

Priority

EP 06022338 A 20061025

Abstract (en)

[origin: EP1921896A1] A heat-generating element comprises positive temperature coefficient (PTC) heating elements (8), strip conductors, and a frame (4) which forms frame openings (6) for holding the heating element and which surrounds the heating element. The frame is formed as a part of a housing (2) and forms a structural unit with a wedge element containing a first wedge surface that extends parallel to strip conductors, and a second wedge surface that is aligned diagonally to the first wedge surface and that is exposed on the exterior side of the housing. A heat-generating element comprises at least one positive temperature coefficient (PTC) heating element (8), strip conductors lying flat on both sides of the heating element, and a frame (4) which forms at least one frame opening (6) for holding the heating element and which surrounds the heating element. The frame is formed as a part of a housing (2) and forms a structural unit with a wedge element. The wedge element contains a first wedge surface that extends parallel to at least one of the strip conductors, and a second wedge surface that is aligned diagonally to the first wedge surface and that is exposed on the exterior side of the housing. The housing comprises a guide (22) in which the wedge element is slidably held. Independent claims are included for the following: (1) an electric heating device comprising a heater housing, PTC heating element, strip conductor, and frame; and (2) manufacturing the electric heating device involving sliding heat-generating element into slot as far as a limit stop formed on the housing, and fixing the heat-generating element in the slot in this way is clamped between the PTC heating element and the slot by moving a wedge element relative to PTC heating element and slot.

IPC 8 full level

H05B 3/50 (2006.01)

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Cited by

DE102016203939A1; EP2637474A1; EP2797382A1; EP2884817A1; EP2884197A1; EP2897230A1; EP2337425A1; EP2884199A1; DE202014006425U1; EP2884198A1; DE102020205646A1

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