

Title (en)

Heating assembly with PTC elements, particularly for motor vehicles

Title (de)

Heizungsanordnung mit PTC-Element, insbesondere für ein Kraftfahrzeug

Title (fr)

Dispositif de chauffage comprenant des éléments PTC, en particulier pour véhicules à moteurs

Publication

EP 1523225 B1 20091223 (DE)

Application

EP 03292474 A 20031007

Priority

EP 03292474 A 20031007

Abstract (en)

[origin: EP1523225A1] A positive temperature coefficient (PTC) element (2) fits between first (3) and second (4) sheet metal contacts that serve as an electrical link. The sheet metal contacts and the PTC element connect by means of an adhesive with a specific electric resistance of 50 Ohms x cm minimum and 500 Ohms x cm maximum. An independent claim is also included for adhesive or solder used between a ceramic positive temperature coefficient element and an electrically conductive sheet metal contact.

IPC 8 full level

H05B 3/50 (2006.01)

CPC (source: EP US)

H05B 3/50 (2013.01 - EP US)

Cited by

DE102015215748A1; US7977607B2; EP2385744A1; EP3401617A1; EP1821575A1; FR2897744A1; EP2083607A1; DE102021204888A1; EP3133897A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1523225 A1 20050413; EP 1523225 B1 20091223; AT E453306 T1 20100115; CN 100488323 C 20090513; CN 1902983 A 20070124; DE 50312260 D1 20100204; JP 2007507384 A 20070329; US 2007000902 A1 20070104; US 7759610 B2 20100720; WO 2005039242 A1 20050428

DOCDB simple family (application)

EP 03292474 A 20031007; AT 03292474 T 20031007; CN 200480029107 A 20040915; DE 50312260 T 20031007; EP 2004010328 W 20040915; JP 2006529988 A 20040915; US 57454306 A 20060815