

Title (en)

Heat generating element of a heating device

Title (de)

Wärmeerzeugendes Element einer Heizvorrichtung

Title (fr)

Element chauffant d'un dispositif de chauffage

Publication

EP 1768457 A1 20070328 (DE)

Application

EP 05020752 A 20050923

Priority

EP 05020752 A 20050923

Abstract (en)

The generating element has a positive temperature coefficient (PTC) element (6) and a positioning frame (2), which includes a frame opening for retaining the PTC element. The PTC element is supported in the frame in a highly insulating manner with a comparative tracking index (CTI) value of 400. An isolating gap (36) is provided between the PTC element and the material of the positioning frame surrounding the opening. An isolating spacer unit (40) is provided in the isolating gap. The spacer unit and/or the positioning frame are formed from electrically high-quality insulating material.

IPC 8 full level

H05B 3/50 (2006.01)

CPC (source: EP KR US)

F24H 3/0405 (2013.01 - EP US); **F24H 3/0429** (2013.01 - EP US); **F24H 3/0435** (2013.01 - EP US); **F24H 3/0447** (2013.01 - EP US);
F24H 3/0464 (2013.01 - EP US); **F24H 3/0476** (2013.01 - EP US); **F24H 3/082** (2013.01 - EP US); **F24H 9/1872** (2013.01 - EP US);
H05B 3/14 (2013.01 - KR); **H05B 3/16** (2013.01 - KR); **H05B 3/50** (2013.01 - EP US); **H05B 2203/02** (2013.01 - EP US);
H05B 2203/023 (2013.01 - EP US)

Citation (search report)

- [XY] DE 3208802 A1 19830922 - FUDICKAR KG C S [DE]
- [XY] EP 0026457 A2 19810408 - SIEMENS AG [DE]
- [XY] US 2003206730 A1 20031106 - GOLAN GADY [IL]
- [X] DE 2804749 A1 19790809 - EICHENAUER FA FRITZ
- [AY] US 5665261 A 19970909 - DAMSOHN HERBERT [DE], et al
- [A] DE 10118599 A1 20021107 - WEBASTO THERMOSYSTEME GMBH [DE]

Cited by

DE102008033142A1; EP2607808A1; DE102017223782A1; DE102018220333A1; DE102018212012A1; EP2293648B1; EP2023056A1;
CN113133143A; EP2145783A3; FR3083952A1; US9915441B2; EP2190256A1; EP2190258A1; EP2385744A1; EP2145783A2; EP3141842A1;
DE102017209990A1; EP2190257A1; EP3328157A4; EP3101998A1; CN106231700A; DE102019204472A1; DE102022120360A1;
DE102022116979A1; DE102012025445A1; EP2393336A1; EP2608633A1; EP4362606A1; DE102022127875A1; EP3515152A2;
DE202011003209U1; DE102021112690A1; US12049124B2; EP2608631A1; DE102018220333B4; US11686502B2; EP4255110A1;
DE102022107554A1; EP3598847A1; EP3820245A1; US11395376B2; EP2428746B1; EP2428747B1; EP2190256B1

Designated contracting state (EPC)

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ES 2303167 T3 20080801; JP 2007134315 A 20070531; JP 4385044 B2 20091216; KR 100837333 B1 20080612; KR 20070034443 A 20070328;
US 2007068913 A1 20070329; US 7667166 B2 20100223

DOCDB simple family (application)

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JP 2006257826 A 20060922; KR 20060092970 A 20060925; US 53438706 A 20060922