

Title (en)

Electric heater with ptc elements, particularly for motor vehicle cabin ventilation systems

Title (de)

Elektrischer Heizkörper mit PTC-Elemente, insbesondere für Ventilationssysteme der Kraftfahrzeugkabine

Title (fr)

Radiateur électrique avec éléments PTC, en particulier pour systèmes de ventilation de cabine d' automobile

Publication

EP 1370117 A3 20041201 (EN)

Application

EP 03011155 A 20030526

Priority

IT MI20021226 A 20020605

Abstract (en)

[origin: EP1370117A2] An electric heater with PTC elements, particularly for motor vehicle cabin ventilation systems, comprising at least one radiating element (2) and at least one PTC element (3) that can be supplied with electric power and is adapted to transmit heat to the radiating element (2), the radiating element comprising an extruded body that has a plurality of fins (4) in order to increase its heat exchange surface, the provision of the radiating element (2) as an extruded body producing greater compactness, better efficiency in transmission of the generated heat, and simpler assembly of the heater. <IMAGE>

IPC 1-7

H05B 3/14; **H05B 3/50**; **F24H 3/04**; **F24H 9/18**; **B60H 1/22**

IPC 8 full level

F24H 3/04 (2006.01); **H05B 3/14** (2006.01); **H05B 3/50** (2006.01)

CPC (source: EP)

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Citation (search report)

- [X] DE 9218708 U1 19950216 - TUERK & HILLINGER GMBH [DE]
- [X] EP 0464955 A1 19920108 - TEXAS INSTRUMENTS INC [US], et al
- [X] US 4414052 A 19831108 - HABATA ETSUROH [JP], et al
- [X] EP 0368206 A2 19900516 - NICHISERA KK [JP], et al
- [X] US 4352008 A 19820928 - HOEFER EDWIN, et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 195 (E - 1533) 5 April 1994 (1994-04-05)

Cited by

DE102010048593A1; US8975561B2; EP1731852A1; DE102015120183A1; EP2282605A1; US2013306622A1; US9278606B2; EP2131117A1; CN103171404A; DE102010048593B4; CN104823004A; FR2889294A1; US2014008450A1; US9333835B2; CN104203612A; US2015043898A1; EP3524900A1; DE102008033143A1; DE102006018784B4; DE102006018784A1; CN102778027A; US2009139983A1; DE102011056930A1; WO2017013846A1; WO2007071335A1; WO2018096095A1; DE102008033143B4; EP2199704A2; DE102009013927A1

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